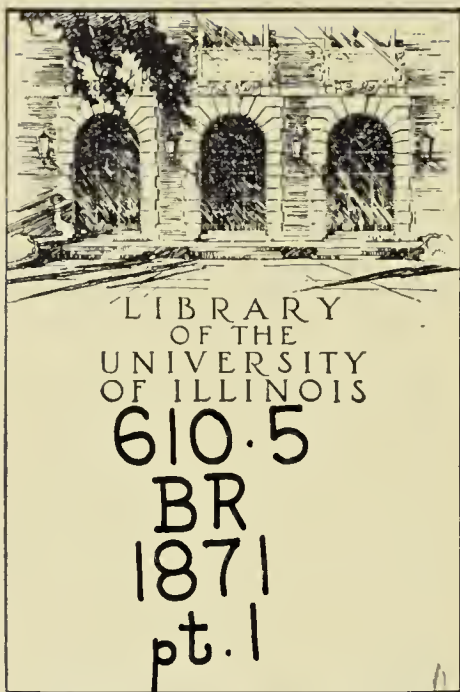


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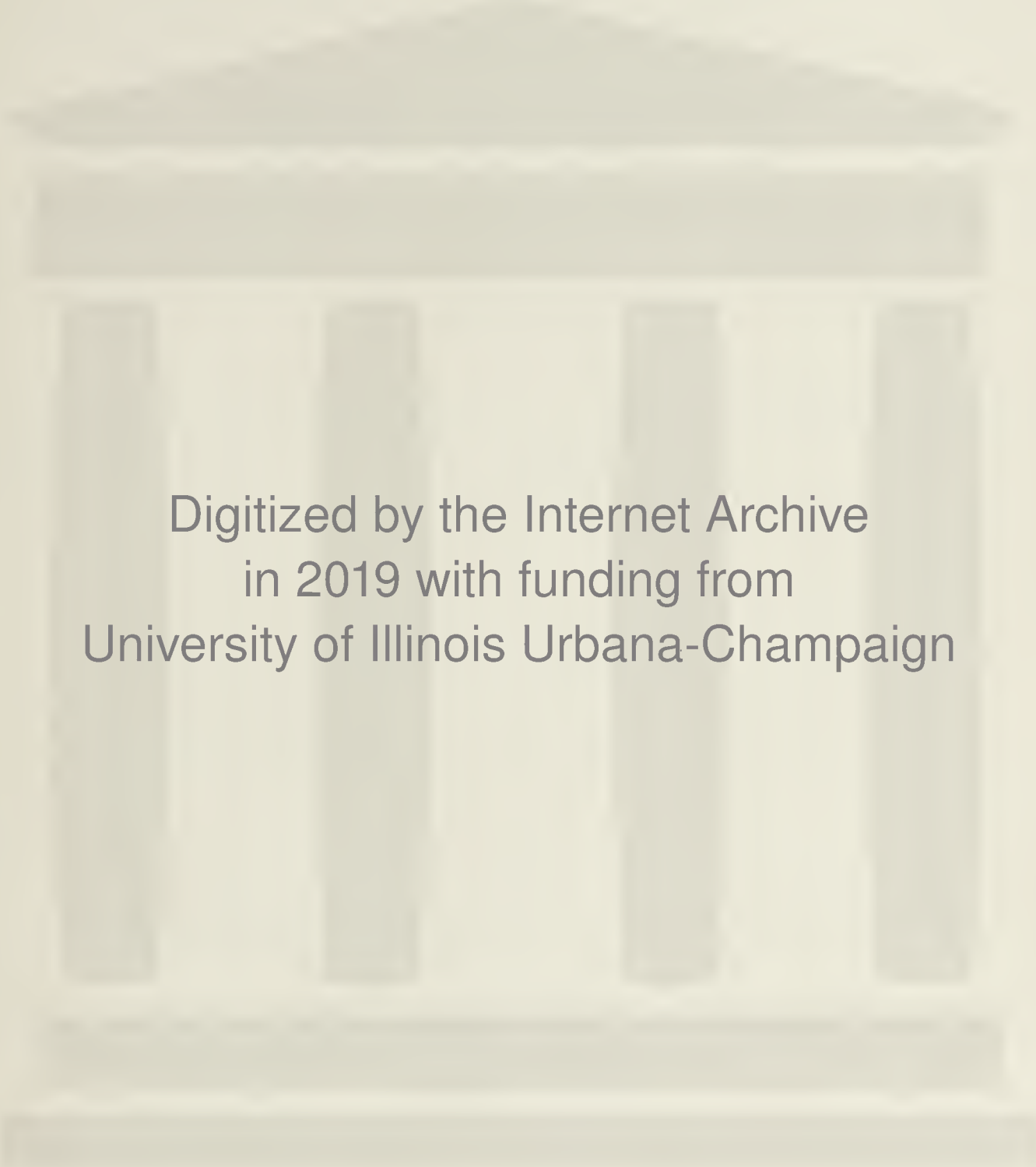
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BRITISH MEDICAL JOURNAL:

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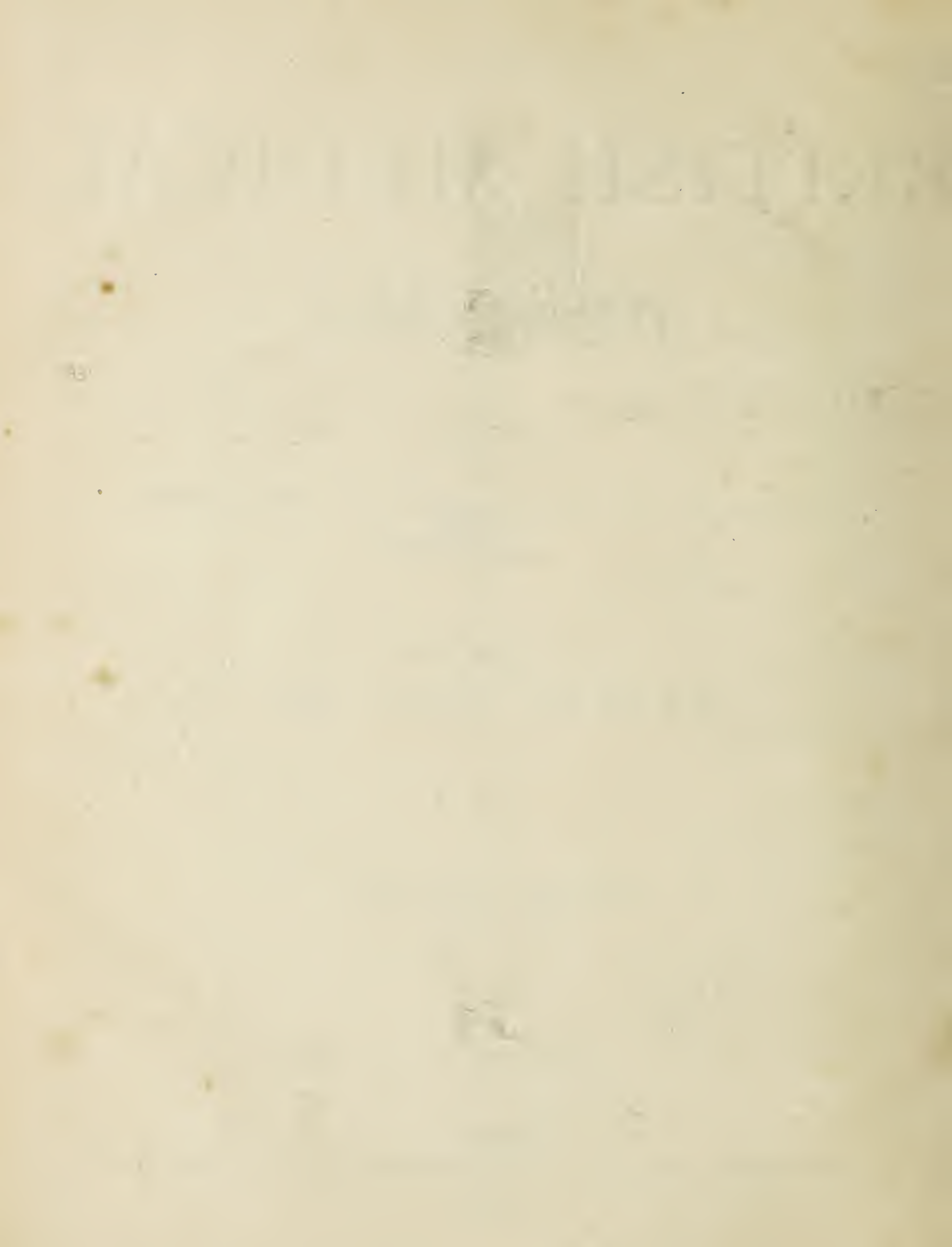
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BRITISH MEDICAL JOURNAL:

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EDITED BY ERNEST HART, Esq.

LONDON: SATURDAY, JANUARY 7, 1871.

REPORT

OF

FURTHER EXPERIMENTS DEMONSTRATING THAT MERCURY HAS NO SPECIAL ACTION ON THE LIVER.

By JOHN HUGHES BENNETT, M.D., F.R.S.E.,

Professor of the Institutes of Medicine and of Clinical Medicine, Edinburgh.

IN the numbers of this JOURNAL for July 25th, 1868, May 8th, 1869, and July 24th, 1869, will be found the Report of the Edinburgh Committee of the British Medical Association, as to the action of Mercury on the Liver. The chief results demonstrated were as follows.

1. There is not one single fact in the history of medicine which shows that mercury stimulates the liver or increases the flow of bile; but, on the contrary, every trustworthy experiment directed towards that inquiry, points to the opposite conclusion.

2. The dog is affected by mercury exactly in the same manner as man is; and, when death is occasioned by its administration, exactly similar lesions are discovered in that animal by *post mortem* examination.

3. Permanent biliary fistulæ were established in nine dogs, and all the bile secreted in their livers was carefully collected. This was compared with the weight of the animal, and with the amount and nature of its food. It was analysed in most of the observations, and the proportion of solid, liquid, and inorganic matters ascertained.

4. The tables published by the Committee (JOURNAL for July 24th, 1869) show that mercury, however administered in these animals, whether in small or large doses, whether gradually increased so as to cause salivation, or so given as to induce purgation, never occasioned the slightest increase in the amount of bile secreted. Whatever preparation was employed, and however it was administered, the same negative result followed.

5. The Committee, in order to exhaust the subject, made, also, a similar investigation into the action of podophylline and of taraxacum, and clearly proved that these drugs have not, any more than mercury, the slightest action as cholagogues.

The experiments of the Committee were so carefully performed, so frequently repeated, so modified in every conceivable way, and so accurately recorded, that the inquiry seemed to be utterly exhausted. It was imagined, however, by some, and the point is referred to in the Report, "that mercurials possess some specific power of exciting the biliary secretion by acting on the orifice of the common bile-duct, and so stimulating the secretion through the nerves which connect it with the liver, just as pyrethrum or vinegar stimulates the salivary glands when they are applied to the orifices of the salivary ducts." It seemed to me that this idea was capable of being tested by experiment, and accordingly I devised and carried out a series of investigations, which have completely settled this matter, and of which it is the object of this communication to give an account.

Experiments to determine how far Local Stimulation of the Gall-Duct in the Duodenum increased the Flow of Bile.—July 22nd, 1869. The different mercurial preparations employed as medicine were subjected to various processes, such as they might undergo when digested for a time in the stomach, with a view to their being applied to the orifice of the common duct in the duodenum. Thus:—

1. Two blue pills rubbed down in an ounce of milk were given to a cat, which was killed an hour afterwards. The stomach was ligatured above and below, and kept warm at a temperature of 100 degrees Fahr., for three hours.

2. Two blue pills, rubbed down in half an ounce of milk, after mixture with a few drops of rennet, were allowed to digest in a water-bath for eight hours.

3. Five grains of calomel, in half an ounce of milk, were digested in the same manner for eight hours.

4. One grain of corrosive sublimate, in half an ounce of milk, was also digested in the same way for eight hours.

These various fluids holding the digested mercurial preparations in suspension or solution being ready, a full grown rabbit was chloroformed; its abdominal cavity, and then its duodenum, were opened, and the orifice of the common duct exposed and cleaned. Several drops of all these fluids were placed, at different intervals of time, on the orifice of the duct, but not the smallest quantity of bile escaped. There were then applied: 1, mechanical irritation—such as pricking the orifice; 2, acetic acid; 3, powdered calomel; and 4, corrosive sublimate. The latter caused great redness of the mucous membrane, but in no case did bile flow from the orifice.

The two poles of an interrupted electrical current were applied to the orifice without producing any effect; but when they came into contact with the diaphragm, it was strongly contracted, together with other muscles in the neighbourhood, and a gush of bile flowed from the orifice. This was repeated several times.

The bile-duct was most carefully dissected out in its middle portion, and isolated by passing the ivory handle of a scalpel under it. The poles of the battery were now applied to this portion of the gall-duct, but without causing any flow of bile.

The liver was now removed from the body, without, however, dividing the gall-duct which united it to the duodenum. The poles of an induction coil in action were applied to various parts of the liver itself, without causing any flow of bile. The interrupted current was sent through the gall-bladder in various directions without inducing the slightest contraction in it; but the same current, applied to the stomach and to the urinary bladder, caused in both of these hollow viscera strong contraction.

November 18th, 1869.—In order to ascertain whether similar negative results were to be obtained in the dog, I requested my assistant, Dr. McKendrick, to repeat the local irritations in that animal. The following is the note with which he furnished me. "A male dog was chloroformed; its abdomen and duodenum were then opened, and the orifice of the bile-duct exposed. A strong solution of common salt, a solution of corrosive sublimate (four grains to an ounce), dilute nitric and hydrochloric acids, and an interrupted current from an induction machine, applied to the opening of the common ducts, caused no flow of bile. But when the abdominal or thoracic muscles were thrown into contraction, by the induced current, bile flowed freely from the orifice. The same irritant caused no contraction of the gall-bladder, but produced powerful contraction of the urinary bladder." It results from these experiments:—

1. That mercurial preparations digested in the stomach do not irritate the orifice of the common duct in the duodenum, or induce any flow of bile into it.

2. That no other kind of local irritation causes increased secretion or flow of bile into the duodenum.

3. That the gall-bladder is not contractile, and that, consequently, no irritation, direct or indirect, nor any kinds of reflex action, influence it.

4. That pressure upon the gall-bladder or liver in consequence of extensive contractions of the muscles surrounding these organs, causes a copious flow of bile into the duodenum.

In consequence of the demonstration of the non-contractility of the gall-bladder made in these experiments, I carefully examined the structure of this viscus in the rabbit, dog, and man; and, contrary to what is generally supposed and taught (see Quain's *Anatomy*, seventh edition, p. 878), satisfied myself that it has no muscular coat.

The facts thus arrived at, it seems to me, completely set at rest the speculations which have been put forth as to the possible action of mercurials by local irritation of the extremity of the gall-duct in the duodenum. They further show that, whilst neither mercurials nor irritations of any kind induce a flow of bile from the duct into the bowel, neighbouring muscular contraction has that effect—a circumstance which confirms the well-known beneficial influence of exercise and muscular exertion in certain bilious disorders.

The experiments now detailed conclude the inquiry into the action of mercury on the liver, and demonstrate that the opinions of those who cling to the employment of that drug on the ground of its local action, are in no way better founded than such as have prevailed with regard to its constitutional effects.

ON MUSCULAR ATROPHY (MALADIE DE CRUVEILHIER).*

By J. T. BANKS, M.D.,

President of the King and Queen's College of Physicians in Ireland.

I PROPOSE to bring under the notice of the Medical Society this evening some cases of muscular atrophy or "Cruveilhier's disease", in the hope that they may prove as interesting to the members as they have been to myself. The disease is not one which is of every-day occurrence; and therefore I offer the cases as a contribution, and also because they present some peculiarities which, I consider, entitle them to no ordinary attention.

Muscular atrophy may be said to have been unknown until a comparatively recent period; although we may assume, from a passage in Van Swieten's *Commentaries*, that he was aware of its existence. To Sir Charles Bell may be assigned the honour of having been the first to describe this disease; and Romberg, in his great work on the *Nervous Diseases of Man*, frankly accords him the credit of having done so. Notwithstanding the observations of Bell—"that master of our art," as Romberg terms him—little attention was excited on the subject of this disease for a long period; but the labours of subsequent observers may be said to have made ample amends for the neglect with which it was at first treated. On the Continent, it has engaged the attention of some of the most distinguished cultivators of medical science, whose names alone are sufficient guarantee for the value of their observations. A goodly list they present; but among them stands pre-eminent the name of Cruveilhier, with which Dr. Roberts of Manchester proposes to connect the disease. The memoirs of Aran, Duchenne de Boulogne, Wachsmuth, Trousseau, Virchow, and others, attest the interest which of late years this disease has excited. In Great Britain, where the disease may be said to have been first observed and investigated, we find valuable records of cases by Abercrombie, Meryon, Darwall, Chambers, and very recently Dr. C. Hilton Fagge. The essay of Dr. Roberts of Manchester is replete with most valuable information on muscular atrophy, and contains the record of one hundred cases which were scattered among many works, with five cases of great value which came under his own observation. In Ireland, we find this disease engaging the attention of Graves; while the *Dublin Quarterly Journal of Medical Science* contains cases of great value by Dr. Reade of Belfast, and by Dr. W. D. Moore, and R. McDonnell. Dr. Lockhart Clarke has also made valuable contributions on the disease to recent volumes in the *Medico-Chirurgical Transactions*.

In the year 1860 I exhibited to the Pathological Society a man who presented an admirable example of muscular atrophy; and to this case I shall first call attention, as I have had it under my observation at intervals during the long lapse of years down to the present period.

The man to whom I refer was thirty-four years of age when he was admitted into the Whitworth Hospital under my care in the year 1858. No hereditary or acquired taint existed. The father was strong and healthy, and, at the age of 70, able to work. No member of his family ever had palsy. His brothers and sisters enjoyed good health. His own health was uninterruptedly good until he caught cold from sleeping in a damp room, after which he suffered from pain of a very acute character, which he was told by a medical man was rheumatic. The pain was at first confined to the right arm. His general health was not impaired, and he was able to work at his trade as a shoemaker, notwithstanding the persistence of pain. He was a man of very laborious habits, working not only all day, but part of the night, and on some occasions he sat up all night when pressed to finish what he had in hand. For about eighteen months the pains continued uninfluenced by treatment; and at the end of this time he perceived that his right thumb was wasted, and also that there was to some extent a loss

of power. He had been, I observed, a hard worker, and, I may add, a hard drinker, but now he became addicted to habits of extreme intemperance, his daily potations sometimes amounting to the enormous quantity of twenty glasses of whiskey. The fingers of the right hand next become weak and wasted; then the wrist, and soon the muscles of the fore-arm were engaged; this state being accompanied by cramps and convulsive twitchings. For several months the right arm was the only part affected; but at the end of 1856 the left arm was invaded, and the disease followed a precisely similar course. Soon after the extension of the disease to the left arm, he experienced pains in the back of the neck and between the shoulders; and soon he found that his head fell forwards, particularly when he was fatigued. With the establishment of the atrophy, the pains which had been so distressing entirely disappeared. The arms and hands were generally cold—the latter moist and clammy; and he noticed early in the disease that, when the temperature of the atmosphere was low, he had much less muscular power than in warm weather.

On carefully examining the muscles, it was found that the trapezius was fully developed; but the space beneath it and the cervical vertebræ seemed imperfectly filled, as if the deeper muscles of the nape of the neck were atrophied. The posterior portion of the deltoid muscle was much atrophied, so that a depression existed over the shoulder-joint posteriorly, whilst the anterior or clavicular portion of the same muscle, which is associated in action with the great pectoral muscle, was unaffected, as was the pectoral itself. The contrast between the anterior and posterior folds of the axilla was remarkable, the posterior being ill-developed from atrophy of the latissimus dorsi and teres major on both sides; the serratus magnus had also undergone partial atrophy, evidence of its diminished bulk being furnished by the marked projection of the inferior angle of each scapula. All the extensors of the fore-arm and hand were symmetrically wasted; the supinators were similarly affected. A deep hollow existed in the position of the ball of the thumb; a marked curvature was observed in the upper dorsal region—not the sharp angular curve, the result of disease, but a rounded curve, such as might be produced by the loss of power of the proper spinal muscles of the dorsal region—"the erectors of the spine". The muscles of the lower extremities were fairly developed. The man was active, and he said that he walked ten miles a few weeks before he came under my notice, and performed the journey in two hours and ten minutes.

Such was the state of this man when he, for the first time, came into hospital under my care, and ever since he has been every year in one or other of the hospitals with which I have been connected. For three months he remained in the Whitworth Hospital, during which he was subjected to electro-magnetism, and his general-treatment was tonic; he also took for a considerable time the syrup of the sulphate of iron and quinine. When he left the hospital there was a manifest improvement; his head, which when he came into hospital drooped forwards, was erect. For many years the atrophic process was in abeyance, being strictly confined to the muscles which were first attacked, and which, it appeared, were rapidly wasted. His general health continued good for years; but about two years since he had a severe attack of pneumonia, which placed him in great peril, and from which he slowly recovered, never indeed appearing perfectly to regain his former strength. About a year since he had inflammation of the knee, and abscesses formed in the neighbourhood with profuse suppuration, which continues up to the present, and which greatly reduced his strength. For many months the muscles of the legs have been gradually wasting away, and now he is reduced to the condition of a skeleton. His weakness is extreme, but his voice is good, his breathing unimpeded, and, unless occasionally, there is no difficulty of deglutition. His end, however, approaches, and he is himself aware of it, his mind being perfectly clear and unclouded. I have briefly traced the history of this case from its commencement down to the present; and this opportunity, I may observe, does not often fall to the lot of the physician from a variety of causes, one of which is that the life of the observer is not infrequently too short to enable him to see the end of cases so protracted as the one under consideration. It only remains for me to state that I have myself seen this poor man two days since; he then appeared as if his end were rapidly approaching; but my friend Dr. Adam Clarke saw him to-day, and he is still alive, but *in extremis*.

[This patient died while the present paper was being read at the College of Physicians. A *post mortem* examination was made, and portions of the spinal cord were forwarded to Drs. Robert M'Donnell and Lockhart Clarke for the purpose of minute microscopical investigation. A detailed report of the pathological phenomena observed will be laid before the readers of the BRITISH MEDICAL JOURNAL in due course.]

[To be continued.]

* Read before the Medical Society of the College of Physicians, Nov. 16, 1870.

A LECTURE ON DIAGNOSIS AND PROGNOSIS IN CASES OF BRIGHT'S DISEASE.

By GEORGE JOHNSON, M.D., F.R.C.P.,
Professor of Medicine in King's College; Physician to King's College Hospital.

GENTLEMEN,—In the Nomenclature of Disease published by the Royal College of Physicians, Bright's disease is defined as "a generic term including several forms of acute and chronic disease of the kidney, usually associated with albumen in the urine, and frequently with dropsy, and with various secondary diseases resulting from deterioration of the blood." It is manifest that the prognosis in cases of this disease, as thus defined, must vary extremely. The difference, as regards prognosis, between a case of recent acute Bright's disease, such as frequently results from scarlet fever or from exposure to cold, and a chronic advanced degeneration of the kidney, such as often complicates various enfeebled and cachectic states of system, is immense. How, then, are we to learn whether the disease is acute or chronic? and, having ascertained that it is chronic, how are we to determine the stage of the disease and the rate of its progress? These are very important practical questions, which I will now endeavour to answer. And first I desire to impress upon you that, in order to avoid errors of diagnosis and prognosis in these cases, you must neglect no available source of information. Note every fact in the past history of the patient, observe closely his symptoms and his present condition, and carefully examine the urine with reference to its general physical and chemical, and in particular as to its microscopical, characters; and, having done this, you will in most cases have the materials for a confident opinion as to the nature and the probable result of the disease. The error into which an inexperienced practitioner is most likely to fall is that of mistaking advanced chronic disease for an acute attack. Chronic Bright's disease is often most insidious in its commencement and its progress, and it not unfrequently reaches a very advanced stage before its presence is suspected. The sudden onset of distressing and alarming symptoms is often the result of a disease which, though latent, has existed for many months before. I have seen not a few cases in which the general symptoms and the history appeared to point to renal disease of recent origin, when a careful examination of the urine clearly indicated chronic disease in an advanced stage. Until the practice of testing the urine in all cases of deranged health becomes universal, chronic Bright's disease must often be overlooked.

The urine in cases of acute Bright's disease is usually scanty, of normal specific gravity, more or less blood-tinged, highly albuminous, and contains numerous epithelial and blood casts, with scattered renal epithelium and blood-discs. (See Fig. 1.) The hæmaturia of acute

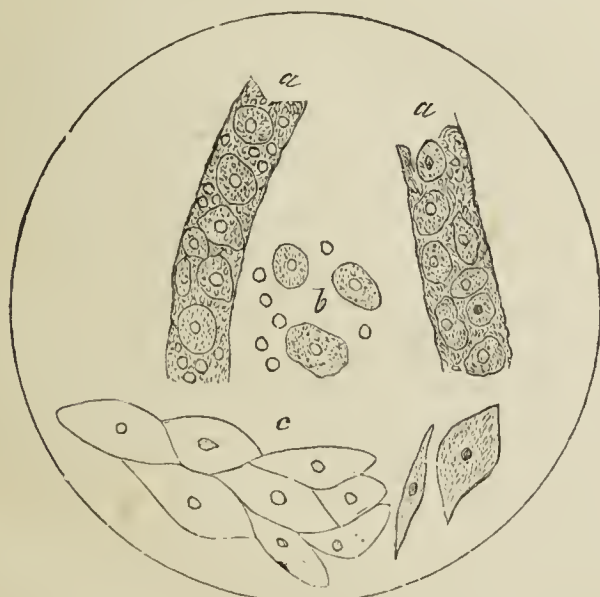


Fig. 1.—*a a*. Epithelial Casts. Casts of the Uriniferous Tubes entangling Renal Epithelium and Blood-corpuscles. *b*. Scattered Renal Gland-cells and Blood-corpuscles. *c*. Pavement-epithelium from the Vagina. X 200.

Bright's disease is distinguished from that of renal calculus by the fact that in the former class of cases the blood, escaping from the substance

of the kidney, is partly moulded within the tubes, therefore blood-casts (Fig. 2) appear in the urine; whereas, in cases of renal calculus, the blood,



Fig. 2.—Blood-casts composed of fibrine entangling blood-discs. X 200.

coming from the pelvis of the kidney, is not moulded within the tubes, and no blood-casts are seen.

In addition to the epithelial casts and blood, there may be seen, in most cases of acute Bright's disease, some small and large hyaline or waxy casts. (See Fig. 3.)

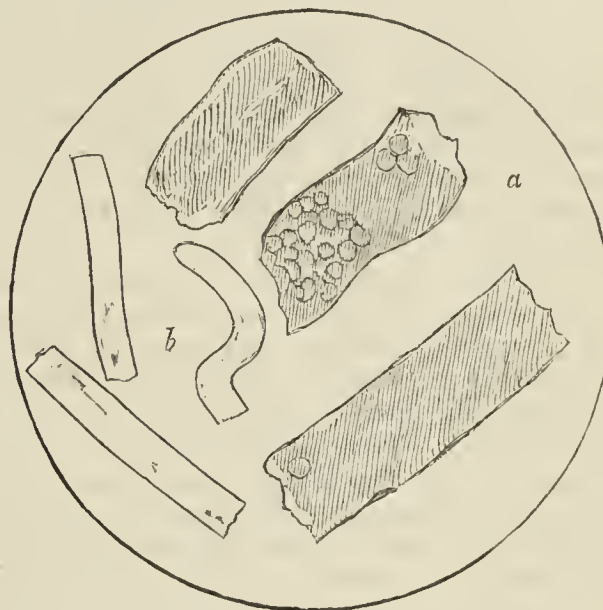


Fig. 3.—*a*. Large Hyaline or Waxy Casts. *b*. Small Hyaline or Waxy Casts. X 200.

The difference between a small and a large hyaline cast is readily explained by a reference to Fig. 4.

The small casts are moulded within the canal whose walls are formed by the gland-cells; while the large casts are formed within



Fig. 4.—Portion of an Uriniferous Tube. The lining of glandular epithelium leaves a clear canal in the middle, which is equal to about half the diameter of the tube. X 200.

tubes from which the gland-cells have been removed. The diameter of these casts is therefore equal to that of the uriniferous tubes whose basement-membrane constitutes the mould in which the casts have been formed. In cases of acute Bright's disease (desquamative nephritis), the small hyaline casts are often present in great numbers; while the large casts are less numerous, or entirely absent. I shall presently show you that the large hyaline casts have great significance in the advanced stages of chronic Bright's disease.

There is yet another form of tube-cast which is often seen in cases of acute Bright's disease. The casts to which I refer contain small round cells (exudation-cells), having the size and appearance of pus-cells, and showing compound nuclei on the addition of acetic acid. (Fig. 5.)

These exudation-cell casts are often mingled in variable proportion with the epithelial casts in cases of acute Bright's disease; but they are sometimes present in great numbers without epithelial casts. In some cases, the exudation-cell casts are present from the commencement of the disease; in other cases, the epithelial casts, which were seen at the beginning of an acute attack, are gradually replaced by the exudation-cell casts. The appearance of these casts in great numbers is a less favourable prognostic sign than when epithelial casts alone are present.

In some undoubted cases of acute Bright's disease, the urine, though highly albuminous, contains no blood, and retains its normal colour;

there is little or no epithelial desquamation, and there may be no tube-casts, or the small hyaline casts may be present in variable numbers. These cases are comparatively rare; but I have notes of several that have been carefully observed from the commencement of the disease to its termination in complete recovery.

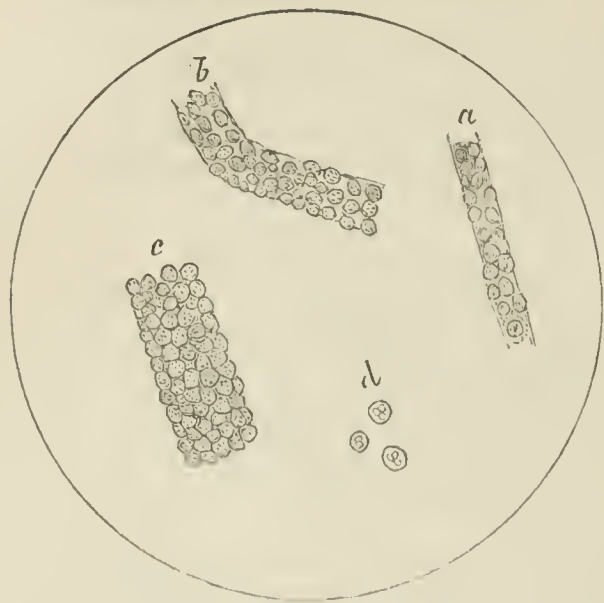


Fig. 5.—Casts entangling small round Exudation-cells, from a case of Acute Bright's Disease. *a b c*. Casts crowded with cells. *d*. Scattered cells. X 200.

When symptoms of acute Bright's disease have continued beyond a month or six weeks, we frequently find that more or less oil begins to appear in the tube-casts and in the desquamated renal epithelium. (See Fig. 7.) These appearances naturally cause some apprehension of incurable degeneration of the kidney; but I have seen many cases of complete recovery after oily casts and cells in great numbers have appeared in the urine for several weeks in succession.

Acute Bright's disease is essentially a curable disease, as much so as acute bronchitis or acute pneumonia. The prognosis is, on the whole, more favourable in the young and middle-aged than in those who are more advanced in years. It is, for obvious reasons, more hopeful when the patient is able to avoid exposure to cold and other hurtful influences, than when circumstances are less favourable for his recovery. The sooner the patient comes under treatment, the better is his prospect of recovery; and, on the other hand, the longer the symptoms continue without signs of amendment, the more grave does the prognosis become.

In favourable cases, a copious secretion of urine, of comparatively low specific gravity and of pale colour, with a diminishing amount of albumen and decrease of dropsy, are amongst the earliest signs of amendment. Albuminuria is usually the last symptom to disappear. The time of its disappearance varies, in different cases of recovery, from a few weeks to many months. If the urine continue albuminous for more than six months, it becomes more and more doubtful whether it will ever cease to be so; but I have seen cases of complete recovery after albuminuria had continued for one, two, and even three years. So long as the urine continues albuminous, in however slight a degree, although the dropsy and all other general symptoms may have passed away, recovery must be considered incomplete. Acute Bright's disease, although, as a rule, a curable, is not unfrequently a fatal disease. There are some symptoms and complications which indicate a case of more than ordinary peril; such as a very scanty secretion of highly albuminous urine; frequent and distressing vomiting; extreme general dropsy, more especially dropsical effusion within the chest, either in the pleura or the pericardium, or both, with urgent dyspnoea; inflammation of the lung, or pleura, or pericardium, or endocardium; severe and persistent headache, which is apt to be followed by convulsions and by coma, with a brown and dry tongue. All these are symptoms of grave, though not always of fatal, import. When the renal disease is acute, and therefore curable, recovery sometimes occurs after the most formidable symptoms of uræmic poisoning have been present.

With regard to dropsy as a symptom of acute Bright's disease, you will observe that it occurs chiefly when the functions of the skin, as well as those of the kidney, are impaired. Thus it is usually present when the renal disease is a result of scarlet fever or exposure to wet and cold. But dropsy is not an ordinary result of the acute renal disease which is often associated with diphtheria.

A consideration of the exciting causes of the renal disease forms an element in the prognostic indications. When Bright's disease results from some inherent constitutional defect, without obvious exciting cause,

it is generally more intractable than when it is directly due to exposure to cold or to the influence of some specific blood-poison, as, for instance, that of scarlet fever, typhus, or erysipelas. Puerperal albuminuria, as a rule, passes away quickly after parturition. To all general rules of this kind there are exceptions, and each case requires a separate and careful study.

Cases of chronic Bright's disease arrange themselves anatomically in two very distinct classes: 1, cases of small red granular kidney—chronic desquamative nephritis; 2, cases of large white smooth kidney. The clinical history of the two classes of cases is as distinct as their anatomical characters. The degenerative changes which result in the small red granular kidney are always chronic from the commencement. This form of disease is rarely, if ever, a sequel of an acute inflammatory process in the kidney. The one constant and essential feature of this disease is a gradual disintegration and destruction of the gland-cells within the uriniferous tubes. The disintegrated cells appear in the urine in the form of "granular casts" of the tubes; and the amount of this deposit in the urine is a measure of the rate at which the destruction of the glandular tissue is proceeding. (Fig. 6.) As the de-

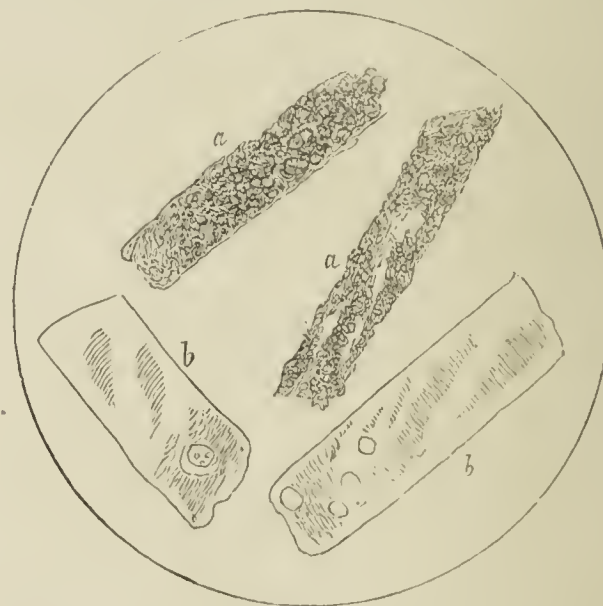


Fig. 6.—*a a*. Granular Casts. *b b*. Large Hyaline or Waxy Casts. X 200.

generative process advances, the uriniferous tubes gradually lose their glandular lining, and large hyaline casts indicate that the tubes in which they were moulded have been entirely denuded. The urine is now pale, copious, of low specific gravity, moderately albuminous, sometimes quite free from albumen. Dropsy, if it appear at all, is limited in extent, and occurs only in the last stage of the disease. Painful muscular cramps in the legs are of common occurrence in the advanced stages of the disease. Common modes of death are by uræmic convulsions, or coma, or cerebral hæmorrhage.

Death is sometimes preceded for some days by a state of torpor and drowsiness, with a brown and dry tongue, sordes on the teeth, and a peculiar and characteristic urinous fœtor of the breath; the general aspect of the patient being very like that which occurs in some cases of fever. More than once I have known this uræmic oppression mistaken for typhus or for enteric fever. The difficulty of diagnosis is increased by the fact that, in cases of typhus and enteric fever, where there is much cerebral oppression, the urine is often scanty and more or less albuminous, and it sometimes contains granular casts. A close attention to the entire history of the case, and a careful examination of the urine, will seldom leave you in doubt. The specific fever-eruption, when present, is decisive. The thermometer will assist you. The temperature is higher in fever than in simple uræmic poisoning. And, with regard to the urine, remember this: that although in a case of fever, as also in some cases of pneumonia and erysipelas, there may be an acute and transient disintegration of the renal gland-cells, and consequently the tube-casts may have the granular appearance which might appear to indicate chronic desquamative nephritis, yet there is this difference, that whereas, in the advanced stage of chronic desquamative disease, the urine is always of pale colour and of low specific gravity, the albuminous urine in cases of acute febrile disease is usually of deep colour and of rather high specific gravity. Once, in a case of acute pyæmia, I found the urine albuminous, and containing large granular and large waxy casts, such as are represented in Fig. 6; and I concluded that there was an advanced stage of chronic desquamative disease. The *post mortem* examination showed that the renal disease was a recent result of the pyæmia. If I had taken into consideration

the fact that the urine was of deep brown colour and of normal specific gravity, I should have avoided this error of diagnosis. You see that, although the observation of the various forms of tube-casts is of great assistance in diagnosis and prognosis, yet a too exclusive reliance upon this microscopic evidence may sometimes mislead you.

[To be concluded.]

ABSTRACTS OF LECTURES

ON THE

GEOGRAPHICAL DISTRIBUTION OF DISEASES IN ENGLAND AND WALES.

Delivered at St. Thomas's Hospital, London.

By ALFRED HAVILAND, Esq.

III.

Geographical Distribution of Phthisis (in Females) in England and Wales.

IN my two last lectures, I endeavoured to show how unexpected the results are when we group the mortuary returns of our country according to certain degrees of mortality regulated by the proportional number of deaths from any one cause to a given number living in each of the 623 districts, the 53 counties, or the 11 divisions. You will remember that, in describing the geographical distribution of each of the causes of death, which formed the subject of my lecture, I used three different tints of the two colours, *red* and *blue*. The most intense *red* represented the *sixth* or lowest degree of mortality, and the most intense *blue* the *first* or highest degree of mortality. The tints of the degrees between these extremes decreased in intensity as they approached the average, below which the degrees were coloured *red*, and above it *blue*. We may fix in our memory the object of these colours by remembering that the *red* represents *healthy* districts, so far as regards the cause of death discussed, and is the typical colour of healthy florid arterial blood, whereas the *blue* indicates the high mortality or unhealthy localities, and is the symbol of *blue*, effete, and unhealthy venous blood.

Having laid down a law that each of the divisions, counties, and districts, shall be coloured according to its proportional mortality from any one cause of death, we carry this into effect and study the result. This we have done in the case of heart-disease and dropsy, and cancer in females. It will be now my duty to lay before you the statistics of phthisis in females, grouped according to the proportional mortality in each of the divisions, counties, and districts; but, before doing so, it will be first necessary to refer to my previous two lectures, for you will find in the sequel, as I have already done, that these maps of disease have to be studied side by side as we progress in the series. The distribution of each cause of death forms a distinct problem to be solved only by the light of our knowledge of the physical, climatic, social, and other factors, which either singly or collectively regulate it in the first instance, and then by the light of the fresh information conveyed to us through the unexpected results of our investigations.

Heart-disease and dropsy I made my starting point and my first problem; and in my second lecture I endeavoured to show you what were the climatic facts coincident with the high and low mortality from this cause of death. We shall now see that they bear a remarkable relation to the facts which the distribution of phthisis discloses; and, moreover, the distribution of cancer in females we found had a remarkable and distinct character of its own, which it will be impossible, in discussing that of phthisis, to overlook.

The result of our investigation of the distribution of heart-disease and dropsy was the following proposition: "That, wherever the prevailing sea-winds have uninterrupted access, as over a flat or elevated country, or up broad vales or valleys, there we found a low mortality; and that, on the contrary, in localities where the tidal wave has no access, where the rivers run at right angles to its course or to that of the prevailing winds, and where the districts are sheltered by lofty hills from the full sweep of the sea-winds, there we find the highest mortality."

This proposition arose out of the following leading facts: 1. That the most exposed divisions form a red arch of *low* mortality around the blue midland divisions of high mortality; and, 2. That the division of the northern and southern counties which are protected by a precipitous coast line, and where the rivers run at right angles to the prevailing winds and tidal wave, had a mortality *above* the average. Again, when we analysed the counties, we found that in the high mortality divisions the death-rate of the most midland counties diminished, those having a low mortality which skirted the coastal counties, and that four of the

counties, the most sheltered from the prevailing winds, have the highest mortality; and that in the low mortality divisions, such as the South Midland (VII), Yorkshire (IX), and Eastern Counties, the most sheltered counties had the highest mortality; and lastly, when we came to the east division of the districts, it was readily seen that low mortality obtained wherever there were great sea-inlets, such as the Thames, the Wash, and the Bristol Channel, besides along the banks of tidal rivers which gave free access to the prevailing winds, such as the Parrett, Avon, Severn, and Gloucestershire Avon.

The movement of our atmosphere is called wind; and, immediately a calm ceases, a new quality is added—force. I shall call it the dynamical element of wind in contradistinction to its chemical, which involves its purity as well as impurity.

The facts that I have just shortly given point at once, I think, to the probability that the dynamical element is the great factor which regulates the distribution of heart-disease and dropsy. When looking at the map of this cause of death, we seem to be told that the prevailing sea-winds sweep a something before them by their sheer power, which is the cause of that kind of heart-disease which dominates the geographical distribution of heart-disease generally. Whether whilst thus purging by force these winds destroy chemically the *materies morbi*, is a problem which may eventually be solved, but of which I can say nothing at present, although the opinion that they do has much to support it.

Let us now compare this map of the distribution of heart-disease in the divisions with

The Geographical Distribution of Phthisis (in Females) in the Eleven Registration Divisions of England and Wales.—During the decade from 1851 to 1860, more than half a million of the population of England and Wales died—according to the medical certificates of duly qualified practitioners in medicine—of that most fatal disease, phthisis (508,923). Of this gross sum, more than a quarter of a million (269,618) were females; and I have selected the distribution of deaths from this cause among the female population, first, because the numbers are sufficiently large to justify me in doing so; and, secondly, because I am desirous of comparing the geography of this cause of death with that of cancer among the same sex.

On looking attentively at the two divisional maps before you—one of heart-disease and the other of phthisis—you will at once be struck with the remarkable fact, that they are the reverse of each other: for instance, the series of *low* mortality divisions in the heart-disease map, which extends from the north of the Bristol Channel around to the eastern coast, and ends on the north bank of the river Thames, is coloured *red*, indicating a mortality *below* the average. In the map of phthisis, you will see that these very divisions are coloured *blue*, in order to indicate that their death-rate is *above* the average.

This series of divisions includes Wales, the North-Western Counties, Yorkshire, the North Midland and the Eastern Counties. All are well exposed to the direct and immediate influence of the sea-winds, coincident with which I have shown that low mortality from heart-disease almost invariably obtains. These are the divisions that receive the brunt of our powerful winds, which sweep over them as it were unobstructed. They derive all the benefit which the dynamical element of our atmosphere in motion can accord; they are the least protected and least sheltered of all the eleven divisions.

In the map of phthisis, all these exposed divisions have a mortality *above* the average; we, therefore, are led to conclude that this free exposure to the force-element of wind is coincident with a high mortality from phthisis.

Again, the midland, the northern, and the southern divisions, which are the least exposed to the winds, have a high mortality in heart-disease and a low mortality in phthisis. The high mortality in heart-disease we found coincident with the sheltering influence of the elevated ridges which form deep valleys, where a thorough air-flushing cannot take place. We have something therefore foreshadowed in this divisional map of the geography of phthisis. The average annual rate of mortality from phthisis to every 10,000 females living is 27.7; and the scale I have adopted is in conformity with those used in describing the maps which formed the subjects of my two last lectures.*

The first or highest degree of mortality is coloured with the darkest blue, and the proportional mortality is from 37 to 40 and upwards to every 10,000 living; the second degree, having a shade lighter, is from 33 to 36; and the third degree, or lightish blue, from 29 to 32. The fourth degree, the one at and below the average, ranges from 25 to 28; it is the lightest pink tint. The fifth degree has a deeper red, and ranges from 21 to 24; and lastly, the sixth degree, that of the least mortality,

* The accompanying map is a reduction by photolithography to one-eighth the size of the original exhibited at the lecture; and the rates of mortality *above* the average are represented by shades of *black* instead of *blue*; those below are *red*, as in the original.

is coloured with the deepest red, and ranges from below 17 to 20 deaths to every 10,000 females living during the decade 1851-60. With the aid of these gradations of colour, we shall be enabled to compare the maps showing the proportional rate of mortality from heart-disease with that of phthisis in the fifty-three counties.

Before, however, entering upon the second process of analysis, I will recapitulate some of the facts already mentioned, and add a few others which will be necessary in the sequel.

1. More than a quarter of a million females died from phthisis during the decade 1851-60.

2. The divisional distribution of heart-disease and phthisis was shown to be the reverse of each other.

3. The most exposed divisions have the highest mortality in phthisis and the lowest in heart-disease.

4. The most sheltered divisions have the lowest mortality in phthisis and the highest in heart-disease.

5. London (I) and the West Midland Division (VI) have the lowest female mortality, being each only 24.9 to every 10,000 living.

6. The division having the highest mortality is the North-Western Counties (VIII). This fact is coincident socially with the engagement of the population in cotton and other factories, and climatically with exposure to the direct and powerful influence of the north-westerly winds. The maps of heart-disease and cancer show an exceedingly low mortality from these causes in this division.

7. In heart-disease and cancer, we see that Wales (XI) has a remarkably low mortality, whereas in that of phthisis a high mortality is depicted. It ranks next to that of the north-western division; its female death-rate from phthisis being 32.0, or 4.3 to every 10,000 living above the average.

DIAGNOSIS BY EXAMINATION OF URINE IN OBSCURE FORMS OF URINARY DISEASE.

By SIR HENRY THOMPSON,

Surgeon and Professor of Clinical Surgery to University College Hospital.

I WISH to call attention to a mode of obtaining a diagnosis in some rare and doubtful cases of disease of the urinary organs, when all other modes have failed. I described it first in my clinical lectures at University College Hospital, some years ago, as a means of observation which had never to my knowledge been recommended or practised, and which I had adopted systematically, and which I have since found of extreme value in some exceptional instances. Thus, for example, we not seldom meet with a patient whose urine, usually containing a small or varying quantity of blood and pus, presents more or less albumen, but relative to the precise origin of which it is desirable to be certain. Some of the deposit produced is of course due to the admixture named; and while we may be right in believing the quantity to be equal only to the blood and pus in the urine, we cannot be certain whether some of it may not be due to renal changes. In such a case, the other signs, and the symptoms also, are often insufficient to enable us to say whether they are due solely to vesical disease or to pyelitis, or whether there may be some renal affection, not to say constitutional albuminuria, complicating the conditions named. On the other hand, the symptoms may apparently indicate only an affection of the bladder; there may be no symptom of disease involving any higher portion of the urinary tract; nevertheless, the experiment to be described may prove the kidneys to be almost solely the seat of the malady. Few cases present more of obscurity than some of those with the characters thus briefly indicated.

The proceeding may be described as follows. A No. 6 or 7 flexible catheter is introduced into the bladder while the patient is in the upright position, and the urine drawn off is placed in a vessel apart. By means of an elastic gum-bottle containing a few ounces of warm water, the bladder is washed out two or three times, with about an ounce or two at a time, until the outflowing fluid is perceived to be quite clear. The catheter being left *in situ*, fresh urine from the kidney, untainted by any admixture, will now pass by drops into a test-tube placed to receive it; and a specimen, therefore, of true renal secretion, unqualified by vesical products, will be furnished in about five minutes, sufficing for a chemical analysis and useful to a certain extent for microscopical observation. By this simple process I have been enabled to solve the question of disease of the kidneys in some cases in which hitherto doubt as to their implication existed; and have often had the satisfaction of demonstrating that the secretion obtained direct from the organs was absolutely free from any sign of disease, where they had previously been suspected to be the seat of grave mischief. But there is one source of

fallacy on applying this test which is occasionally to be met with. An illustration of it exists at this moment in the case of a man now in my ward at University College Hospital. If the bladder easily bleed with instrumental contact, as occasionally happens, the process may produce a slight admixture of blood in the urine so obtained, barely enough to tint it, but sufficient perhaps to occasion a considerable deposit to heat and nitric acid. It should never be forgotten, in estimating these products, that, for equal quantities of blood and pus, the former produces a much more bulky deposit of albumen than the latter. Of course, then, this disposition to slight bleeding, as a result of the procedure, and any augmentation of albumen so caused, is of itself strong evidence of vesical rather than of renal disease, I should say that the occurrence just named is one of rare occurrence.

Wimpole Street, December 12th, 1870.

ON OBSCURE DISEASE OF THE CÆCUM.

By THOMAS KING CHAMBERS, M.D.,

Consulting Physician to St. Mary's Hospital; Honorary Physician to H.R.H. the Prince of Wales.

TUMEFACCTIONS, with dulness on percussion in the cæcal region, are usually referred either to organic tumours, to the forming of an abscess in the perityphlitic tissue, or to a collection of feces. There is a fourth class of cases not included in any of these, and of much importance to distinguish from them; inasmuch as the treatment required is very different; yet they will be found by no means uncommon if the attention be directed that way. The patients are ordinarily such as, having previously had ague, or being resident in a somewhat paludal district, may be supposed to retain traces of the poison, and to have a malarial constitution in all diseases to which they may be subjected. The instances I have fallen in with have been residents either in the low flats of the eastern counties or in the Thames valley; where, in spite of cultivation, the old curse of marsh-miasm still tries to linger, and may be dug up in newly opened ground, or made active by accumulation when the free flow of air or water is obstructed. But it is not always easy to track the virus to its external source, and its manifestations in the human body are irregular and obscure.

The first hint of illness is usually a sudden pain in the lower part of the epigastrium, which sometimes causes vomiting by its intensity, but when less severe is not accompanied by nausea. The vomiting gives no relief. There is no tenderness on pressure. Then the pain transfers itself to the right iliac region, and some increase is felt on manipulating the part. Examination shows a rounded lump in that part of the abdomen, giving the impression of being about the size of a small orange, or from that up to double the diameter. Then the pain gradually abates. The swelling is dull on percussion on firm pressure, and is slightly moveable. There is no diarrhoea or constipation in patients who have taken no medicine to act on the bowels; but they are very apt to exhibit the latter condition from strong purgatives having been administered. In fact, these cases are often referred to accumulated feces, and the copious stools elicited by copious drastics are shown as evidence—which they are not. Diarrhoea, however, whether natural or medicinal, certainly makes the patients worse, produces a great feeling of illness, brings back the colicky pain, and does not allow the swelling to diminish so soon as it otherwise would. I have known even such a childish dose as a teaspoonful of olive oil nightly to have an injurious effect. If not interfered with, the stools are solid and formed; and the more solid they are, the less ill a patient feels. The subsidence of the lump is gradual, and it may sometimes be detected by careful scrutiny several days after the bearer has ceased to be conscious of its existence.

Relapses, or, more properly speaking, recurrences of the disease are common. Slighter things will cause it each time. But yet, each recurrence is milder than the first, especially as respects the colic at the outset. This is just like ague.

As to the immediate cause, it is not always to be identified. In the case of a country gentleman, it was obviously the standing about with the thighs wet in cold weather, dragging a fish pond. In a builder, it was a somewhat similar exposure in his business. In a young laundress at St. Mary's Hospital, the illness seemed due to the heats and chills of a wash-house. A resident on the banks of the Thames accused a railway embankment, which has run through her garden, of having made the house unhealthy.

Towards explaining the pathology of these cases, morbid anatomy has contributed nothing but negatives. If I might be allowed to hazard a guess in the dearth of evidence, I would suggest that there is a specific congestion of the parietes of the cæcum, similar to that which takes place in the spleen in orthodox ague. I have no doubt that if it were

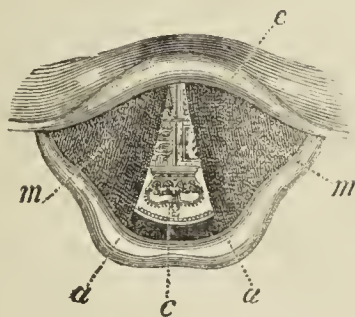
continued too long, or were too often repeated, permanent disorganisation might result, as happens to the spleen.

As to treatment, I have found a large hot poultice on the abdomen a relief during the painful period, but I do not know that it diminishes the tumefaction. An agreeable one is made of half and half linseed meal, and young laurel leaves chopped small, with a teaspoonful of chloroform added at the times of application and renewal. I have been disappointed with the effects of quinine. It is a good general tonic, but it does not in large doses cut the ailment short, as in the case of regular ague. Bark is apt to purge in large doses. Arsenic has given me more satisfaction, and I feel sure it is curative in these cases. When there is diarrhoea, opium checks it, and is not contra-indicated by the nature of the disease.

CASE WHERE A HALF-SOVEREIGN WAS IMPACTED IN THE LARYNX.

By HENRY SMITH, F.R.C.S.,
Assistant-Surgeon to King's College Hospital.

A TIPSY shoemaker, on the evening of Sunday, December 11th, placed a half-sovereign in his mouth; it at once disappeared, and he was seized with dyspnoea, which for a time was urgent. He was subsequently taken to the police-station, where he was locked up all night and half the following day. After the effects of his potations had gone off the man felt considerable pain in his throat, could not swallow, and breathed with difficulty. He applied to a hospital, and a probang was passed into his gullet, but nothing further was done, and the man returned home, remaining in great distress until Wednesday afternoon, when I saw him. He narrated his history to me as well as he could, and, from the fact of his not being able to speak above a whisper, as well as from nearly a total absence of air in his lungs, I had no doubt that the coin was in his larynx. I sent him into the hospital, but, as it was late and there was no urgent distress, I waited until next day before taking any steps to remove the foreign body. Sir William Fergusson saw the man with me, and agreed with me as to the presence of the coin in the larynx. Dr. George Johnson, who is well-skilled in the use of the laryngoscope, examined the patient with this instrument, and clearly showed to the bystanders that the coin was impacted in the larynx between the vocal chords, with its surfaces up and down, tail uppermost, almost completely filling up the inlet of the larynx, only a small space for air being left between the coin and swollen mucous membrane behind. (See Plate.)



Dr. Johnson thus made it clear that the coin was so closely impacted that it would be useless to attempt to dislodge it by placing the man head downwards; and with my concurrence he made very careful attempts to remove it with the laryngeal forceps, and repeatedly reached the coin and scratched its surface; but, from its position, it was found impossible to grasp its margin. I then made an opening in the crico-thyroid space, and passed a strong silver probe into the larynx from below, and, using considerable force, I pushed the coin out of its purse into the man's mouth, and he immediately ejected it.

The patient, who bore the manipulations of Dr. Johnson and the operations by myself with remarkable fortitude, was at once relieved. The opening was closed, and he so quickly recovered that he begged to be dismissed in less than a week.

Instances of foreign bodies in the windpipe are, I think, amongst the most interesting in surgery. In no condition of accident or disease can the value and power of the art of the surgeon be demonstrated more clearly; humanly speaking, the issues of life and death are in his hands, according as he acts with promptitude or otherwise. These cases have become even more interesting than they were since the application of the laryngoscope as a means of surgical diagnosis; for, if the foreign body be imbedded in the larynx, we can now not only demonstrate its

locality, but its exact position as well, as was illustrated in the case just narrated. A valuable guide is thus furnished to the surgeon, who can direct his operations according to the information thus afforded him. We could at once see that it would be useless to attempt the removal of the coin by inclining the body as in the well-known case of Mr. I. Bruncl. Moreover, it was at once clear to me that I ought not to attempt to extract it through the wound, but to adopt the simple expedient of pushing it into the mouth from below. I must here record my thanks to Dr. Johnson for the great assistance which he rendered me in this interesting case.

BONE IMPACTED IN THE LARYNX: REMOVAL THROUGH AN OPENING IN THE TRACHEA.

By T. PRIDGIN TEALE, M.A., M.B.,
Surgeon to the Leeds Infirmary.

PHILIP MACBRIDE, aged 36, residing at Clifford, near York, was admitted into the Leeds Infirmary on September 30th, 1867, suffering from great difficulty in breathing. On the previous day, whilst drinking broth, he sucked into his mouth a thin plate of bone, which was carried into the fauces beyond his control, and drawn into the larynx. He was not immediately seized either with violent coughing or with difficulty in breathing. He made considerable efforts by coughing, tickling the throat, etc., to dislodge the offender, but without avail. Next day, he walked to the house of his medical man, Mr. Scatchard, who made further attempts to remove the bone; and, not succeeding, sent him over to Leeds. When I saw him, his breathing was somewhat croupy, and the bone could be felt by the finger to be firmly lodged in the larynx. Examined by the laryngoscope, the bone was seen to be a long thin piece, impacted between the thyroid cartilage in front and the arytenoid behind. Guided by the same instrument, I was able to seize the bone with long forceps; but, owing partly to the irritability of the muscles of the glottis and partly to the springiness of the long blades of the forceps, I was unable to move the bone from its firm position.



A. Side view of Bone, exact size. B. View of Upper Edge, as seen by Laryngoscope.

3 P.M.—As it seemed to be impossible to remove the bone, and the breathing was becoming more and more embarrassed, I performed laryngotomy. After the introduction of the tracheotomy-tube, further efforts were made to seize the bone with forceps, introduced through the mouth, but it was discovered by the aid of the laryngoscope that the bone had been pushed lower down into the larynx. A probe then passed into the wound struck against the lower edge of the bone, which was seized by dressing-forceps and dragged downwards. The tracheotomy-tube having been removed, two or three upper rings of the trachea were one by one divided, until the wound was large enough to allow the bone to escape. The bone proved to be generally flat and somewhat triangular, and two sharp angles had fixed it antero-posteriorly in the larynx; and the apex pointing downwards, wedge fashion, had facilitated its passage towards the trachea.

His progress was satisfactory. For two or three days there was slight bronchial irritation and congestion of the fauces; but the tube was removed on the second day, twenty-four hours after the operation. He left the hospital on the twenty-fourth day, with a voice perfectly restored, good breathing, and the wound all but healed. No injury to the larynx could be detected by laryngoscope.

The notes of this case were taken by Mr. Robert Atkinson.

GYNÆCOLOGICAL NOTES.

BY ROBERT BARNES, M.D.,

Obstetric Physician, and Lecturer on Midwifery and Diseases of Women and Children at St. Thomas's Hospital.

I.—ON PROLAPSUS AND ELONGATION OF THE UTERUS.

PROLAPSUS of the uterus and hypertrophic elongation of the cervical portion of the uterus are now always thought of in association. Since Huguier published his views in 1859, it has become almost a general belief that true prolapsus does not exist; that it is only an apparent condition, that the real condition is always hypertrophic elongation, the cervix growing until the os appears beyond the vulva. That this is true of a large number of cases is clearly established. But it is not true to the absolute exclusion of prolapsus. Nor is it true that the discovery of the frequency of elongation of the cervix is due to Huguier. In the grandest pathological work of this century, Cruveilhier figured and described it as of constant occurrence. Jules Cloquet also has given an accurate representation of it (*Pathologie Chir.*, 1831). Samuel Cooper, in his *Surgical Dictionary*, quotes the descriptions of Cruveilhier and Cloquet.

The use of the fingers and the uterine sound will make it clear to demonstration that the cases of apparent prolapsus uteri are divisible into two classes. In the first class, the prolapsus is real as well as apparent. Enveloped in the protruded inverted vagina, the entire uterus may be felt; its whole contour may be surrounded by the fingers; and the sound, passed through the os, further determines with exactness the size and position of the organ. It is of normal size, perhaps less; and it is almost always retroverted. This form is observed most frequently in elderly women who follow laborious occupations. It is a joint product of senile atrophy of tissue, and of expulsive force acting upon the contents of the pelvis. As the uterus is driven down, the cervical portion, being attached to the base of the bladder, is relatively the fixed centre of rotation; whilst the fundus, compelled to follow Carus' curve, describes a circle round its os, so that at the outlet the fundus looks backwards.

In the second class of cases the prolapsus is only apparent. There is the hypertrophic elongation of the uterus, chiefly but not exclusively involving its neck, of Cloquet, Cruveilhier, and Huguier. This condition almost always arises during the child-bearing period of life, and in women who have borne children. It is a result of chronic endocervicitis, mainly promoted, but not necessarily so, by laborious occupations. The mechanism of its formation I will explain on another occasion. The body of the uterus maintains its normal elevation and direction, or nearly so; whilst the supravaginal portion of the cervix, growing downwards, carries with it a reflection of the vagina, which forms the covering of the apparent prolapsus. Of course, this elongation may be met with at any stage of its progress. In the early stages, before it appears beyond the vulva, the lips of the os uteri are everted, gaping. The sound will always measure accurately the extent of the elongation. It is a remarkable fact, which I have often demonstrated clinically, that the extreme elongation is five inches—*i.e.*, exactly double the normal length of the uterine cavity. The fingers compressing the protruded portion will trace the elongated cervix as a firm cylinder, feeling like cartilage, through the reflected and thickened vagina, up into the pelvis.

The two forms of uterine disease, being essentially different in their origin and nature, demand different methods of treatment.

CLINICAL MEMORANDA.

FRACTURE OF A RIB FROM COUGHING.

THE rarity of this accident appears from the few cases reported, though its possibility is spoken of in the text-books. I am only aware of the eight cases collected by Malgaigne, and two seen by Nélaton.

A woman, aged 53, in the seventh month of her first pregnancy, was under my care for severe cough, due to relaxed uvula, and perhaps also to her condition. She was somewhat anæmic, but not in extremely bad health, and not distinctly tuberculous, though the family history shows a tuberculous taint. On the evening of March 3rd, 1869, after a violent paroxysm of cough, she felt something give way in her side; and when I saw her a few hours afterwards, she described the grating on inspiration, and other symptoms, in a way that made the nature of the accident unmistakable. On examination, the tenth rib was found broken transversely, a little anterior to the tubercle. The fractured ends were prominent. The case went on satisfactorily under ordinary treatment;

and there has been no recurrence of the accident either during labour or since. There was no reason to suspect any other cause for the fracture.

PHILIP MIALI, Surgeon to the Bradford Infirmary.
December 1870.

NOTE ON THE RADICAL CURE OF SMALL ENCYSTED HYDROCELE OF THE TESTIS OR CORD.

In a small encysted hydrocele of the cord especially, and in small encysted hydrocele of the testis, the cyst-wall is very thin, and it is very difficult to inject iodine, because when the fluid has escaped it is impossible to feel sure that the cannula still remains in the collapsed sac. In such cases, I have found the following remedy a perfectly efficient one. An ordinary surgical needle is threaded with ligature-silk well moistened with tincture of iodine; the hydrocele being lifted up and isolated by the fingers, the needle is readily passed through the cyst, the wet thread following it. The moment the needle has passed through the cavity, its fluid escapes. If the finger be pressed on the sac, and the thread at the same time be drawn gently through it, its interior becomes thoroughly saturated with iodine: the thread may be drawn through and removed immediately, or, as I prefer, it may be left for an hour or two; the result is not uncertain.

Of the desirability of removing any condition which tends to keep open and weaken the inguinal canal, it is unnecessary to speak.

FURNEAUX JORDAN, F.R.C.S., Surgeon to the
Queen's Hospital; Professor of Surgery in
Queen's College, Birmingham.

OBSTETRIC MEMORANDA.

CASES ILLUSTRATING THE INDUCTION OF PREMATURE LABOUR.

CASE I. *Placenta Previa*.—E. D., aged 34, married, with four children. The catamenia had ceased for four months, when severe hæmorrhage occurred during the night, and returned every few days for the next six weeks. When seen, she was blanched; her pulse was very feeble; she had palpitations, and had lost a considerable quantity of blood during the night. At noon, I applied the abdominal binder, passed a sound up within the os uteri, and ruptured the membranes, plugging the vagina with matico cotton. At 4 P.M., I removed the plug and inserted one of Dr. Barnes's dilators within the os, increasing the size of the bags from time to time, and giving her brandy, ergot, and acid. At 6 P.M., I passed my finger within the os, and detached the lower segment of the placenta, which was situated more to the left. At 8 P.M., the fœtus—about the sixth month of utero-gestation—was expelled; the placenta and membranes following in about ten minutes. The mother made a tedious but good recovery.

CASE II. *Accidental Hemorrhage*.—M. W., aged 43, married twenty-one years, with ten children. When eight months pregnant, after a severe shock from fright and subsequent straining at stool, she had copious hæmorrhage and pain in the upper portion of the abdomen, at which point the placental bruit was detected. Application of the binder and plugging the vagina failing to arrest bleeding, at 8 P.M. I ruptured the membranes, and inserted one of Dr. Barnes's dilators, changing it from time to time. At 11 P.M., on removing the bag, labour having fairly set in, the head presenting, and the bleeding having ceased, I refrained from further interference, and waited patiently until delivery took place at 1.30 A.M. At 2 A.M., the placenta was expelled. It was small, and had become detached over about two-thirds of its circumference and about one-third of its area, dense black clots being intimately attached to the edge and extending over the adjoining membranes. Both mother and child did well.

ARTHUR EDIS, Assist.-Physician Hospital for Women, Soho Square; Honorary Physician to British Lying-in Hospital.

PARTRIDGE TESTIMONIAL.—The subscriptions of the friends and former pupils of Professor Partridge towards a testimonial have amounted to upwards of £570. At a late meeting of the Committee, the Chairman, Mr. Henry Lee, was requested to ask Mrs. Partridge to act for them in the selection of the form of testimonial. It was thought that no one so well as Mrs. Partridge could know the Professor's tastes and wishes; and it was, therefore, determined to ask her to apply the balance of the funds in hand, in accordance with a previous resolution of the Committee, in such a way as might be most agreeable to Mr. Partridge.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN
THE HOSPITALS OF GREAT BRITAIN.

NOTES ON THE TREATMENT OF HABITUAL CONSTIPATION AT THE LONDON HOSPITALS.

THE following notes on the treatment of habitual constipation are of interest. They represent very fairly the ordinary means adopted in practice by most of the London hospital physicians to relieve this troublesome affection. The revolution which has taken place of late years in the treatment of habitual constipation from one of irritation to coaxing, as Dr. Habershon very happily expresses it, is scarcely less marked than that in the treatment of inflammation, from venesection to the occasional use of leeching.

GUY'S HOSPITAL.—In habitual constipation Dr. Habershon thinks it is most desirable, if possible, to avoid the use of purgative medicines and to use those hygienic measures which are likely to induce increased action of the colon, such as horse exercise, walking, etc.; a diet which is stimulating in its action on the mucous membrane, as fruit, vegetables, brown bread should also be partaken of. If these measures be insufficient, then a draught of cold water early in the morning may be used, or Frederickshall water or Pullna water. If medicines be absolutely necessary it is well to use the milder ones first, as dried rhubarb, with carbonate of soda or taraxacum; then to resort to more active drugs. These should be given during a meal or directly afterwards, the watery extract of Barbadoes aloes, with or without the extract of nux vomica, or a small dose of strychnia; but, if more active measures be required, then the extract of jalap, or of colocynth, or the podophyllin resin may be added. There is a great difference in the constipation of young persons and those advanced in life; in both there may be inertia of the involuntary muscular fibre and distension of the colon; but in the latter there is more likely to be impaction of fecal masses in the rectum and sigmoid flexure—in these instances aromatic stimulants, as pepper and guaiacum, are often of great service, and enemata may become absolutely necessary. It is astonishing, however, how in cases of habitual constipation, where drugs may for long periods have been regarded as essential, simple measures, quiet waiting, gentle exercise, and a process of coaxing rather than of irritation, are followed by satisfactory results.

THE LONDON HOSPITAL.—Dr. Ramskill says that obstinate constipation is to be overcome by a study of the condition of the intestines, and of the general health of the patient in whom it occurs. Speaking generally, in thin anæmic persons, a combination of iron, aloes, and nux vomica, given twice daily before meals, acts best; for the constipation depends on a weak muscular coat of bowels, and this combination gives help. Again, in plethoric stout persons, the watery extract of aloes, with soap and antimony, is in practice equally satisfactory, the last drug causing free mucous secretion. Again, in pale, flabby, fat persons, who have pendulous belly to a greater or less extent, belladonna, with quinine and rhubarb, fulfils all indications. These remarks apply to simple uncomplicated constipation. In no case should the dose of aloes or rhubarb be such as to induce a fluid or even semi-fluid evacuation, or to cause more than one. A large single evacuation is the desideratum; and it is to be remembered that, in old persons of spare habit, an evacuation occurring every second day, or in some people every third day, is not constipation. A steady persistence in any plan adopted for at least fourteen days should be insisted on, before any satisfactory result is to be looked for, or any judgment pronounced. Help may be obtained in some degree by increasing the quantity of green vegetable at dinner. Spinach is especially useful; and it is, perhaps, as good a cholagogue as taraxacum. Finally, in all cases of constipation, a habit of kneading the bowels, especially during the period of their action, is perhaps the most valuable help, for obvious physiological reasons.

KING'S COLLEGE HOSPITAL.—The treatment of habitual constipation amongst Dr. Kelly's out-patients is chiefly a matter of diet. Many that suffer from it have been in the habit of taking aperient pills or draughts; and, although relieved for the time, the complaint returns again. When it occurs in those who are leading sedentary lives, it is usual to recommend active exercise when possible, the avoidance of indigestible food, and cold sponging. Brown bread, baked apples, and figs seem to be extremely useful articles of diet, and are often effectual. A dose of sulphate of magnesia (one or two drachms) in cold water

early in the morning is a very useful adjunct, when given once or twice a-week. In cases where women suffer from constipation after delivery, similar diet may be recommended with an occasional dose of confection of senna or of sulphur. Castor-oil, aloes, and rhubarb only relieve for a time, and the bowels are afterwards more confined than before. With children the proper regulation of diet is the most important thing, and is often effectual enough. When an aperient is required, a powder made of equal parts of rhubarb powder and carbonate of soda in five-grain doses is very useful.

ST. BARTHOLOMEW'S HOSPITAL.—These cases are treated by Dr. Duckworth, as far as is possible in out-patient practice by suitable diet, and only the simplest medication is resorted to. To that numerous and most importunate class who crave for "a few opening pills", directions are given to eat brown bread, treacle, oatmeal porridge, fat bacon, stewed fruit, or prunes, as part of their diet, and abstention from excess of over-infused tea—a common bad habit—is enjoined. Inasmuch, too, as a certain proportion of the cases of constipation is due to insufficient dietary, a recommendation for food constitutes the only prescription for these. Attention is directed to the importance of proper exercise and the establishment of defæcation at a regular hour, and elderly patients, especially females, are urged not to be overanxious if the bowels fail to act every day. The ordinary purgative medicines, such as senna, jalap, colocynth, and mercurials, are seldom, if ever, employed in habitual constipation, but in their place twenty to sixty grain doses of sulphur præcipitatum are given early in the morning (best stirred in a cupful of hot milk, according to the practice of Dr. Nevins, of Liverpool), or, instead, a drachm of the confectio sulphuris, Ph.B. In some instances a draught of cold water at bedtime, or first thing in the morning, is sufficient to overcome a constipated habit. In cases where there are atonic dyspepsia, or troublesome flatulence in the stomach and bowels, small doses of quinine or nux vomica are given, combined with compound rhubarb pill or aloes, e.g., one grain of sulphate of quinine, with three to four grains of compound rhubarb pill, or extract of nux vomica a quarter of a grain, with three to five grains of either Barbadoes or Socotrine aloes, once or twice a day before meals, and generally with the best effects. In other cases, especially where there are colicky pains, and tendency to overloading of the colon, where there are morbid growths or conditions interfering with comfortable defæcation; or where hæmorrhoids exist, the extract of belladonna is employed in the form of pill (with liquorice powder) in doses varying from a quarter of a grain to a grain twice a-day. The results with this drug are very satisfactory, and Dr. Duckworth believes that medication by belladonna, alone, in many cases of habitual constipation, deserves to be classed amongst the best efforts of modern therapeutics.

CHARING CROSS HOSPITAL.—Constipation characterised by habitualness, is treated by Dr. Hyde Salter according to its cause; it may be a constitutional tendency—part of the individual, it may depend upon weakness of the muscular wall of the bowel, it may depend on sedentary habits, it may depend on habitual neglect and the diurnal rhythm having been long interfered with. For such cases he prescribes active exercise, a punctual and daily visit to the temple of cloacina, whether called for or not, and, of course, all such things as fruit, vegetables, brown bread, etc. Dr. Salter has known a daily pipe immediately after breakfast determine the action of the bowels, and completely conquer a very obstinate habitual constipation. In cases where habitual constipation arises from weakness of the muscular wall of the bowel, he thinks strychnine is certainly of use; Dr. Salter generally gives it in the form of nux vomica. He has undoubtedly seen also in pale, weakly, and flabby people the action of aperients very much assisted by the sustained administration of iron; as soon as ever the iron began to act and gave the person colour and strength, the bowels became obedient to that which failed to move them before.

MIDDLESEX HOSPITAL.—The following is a brief sketch of the method adopted by Dr. Robert Liveing in dealing with ordinary cases of uncomplicated constipation. The two following general directions are applicable in almost all chronic cases. Firstly, that meals should be taken at regular intervals with a fair quantity of green vegetables and brown bread. Secondly, that the habit of evacuating the bowels at a fixed hour every day should be adopted. There are three forms of chronic constipation commonly met with, each of which requires a different treatment. 1. The ordinary constipation of old people. This is best overcome by the daily use of from one to two grains of the watery extract of aloes taken at about 6 P.M. This pill may be continued for many years without losing its effect. 2. The constipation commonly met with in hysterical and anæmic young women is best treated by combining purgatives with tonics. A pill, composed of the compound assafoetida pill with a grain of extract of nux vomica and a grain of the watery extract of aloes, taken twice a day, is very effectual. In addition to this, a mixture containing carbonate of iron should be given daily,

and shower-baths used. Galvanising the abdomen has sometimes an excellent effect. 3. The constipation met with in men who are over-worked or lead sedentary lives appears often to depend on a want of nervous power, or "tone," as it is called, in the intestines. These cases are almost always benefited by fresh air and exercise, with the internal administration of liquor strychniæ in five-minim doses. Accidental cases of obstinate constipation occurring without any obvious cause should be first treated with a sulphate of magnesia mixture, given in rather small doses, but repeated every hour until the bowels are moved. If this fail, the injection of a very large quantity of warm soap and water thrown up as far as possible into the large bowel is a safe and effectual remedy. In constipation which results from lead-poisoning, a full dose of opium with castor oil should be given. And in all cases of constipation associated with local pain and tenderness, opium and the recumbent position are indicated, with soothing external applications over the seat of pain.

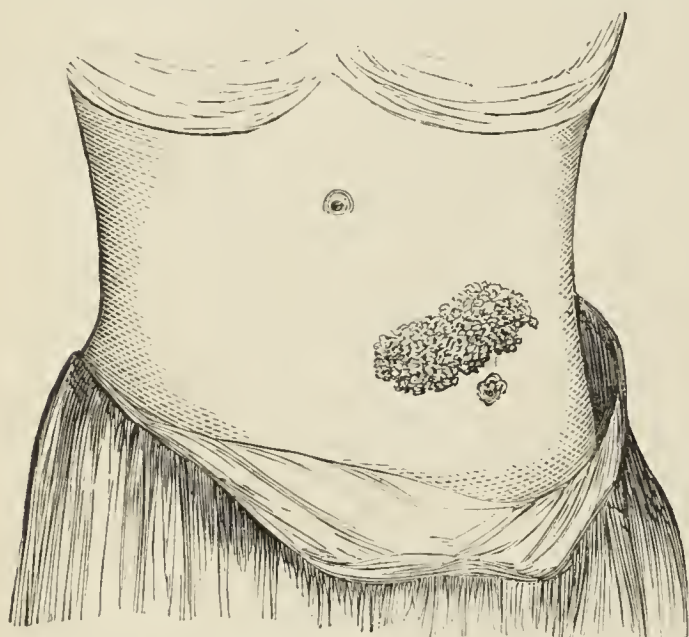
In our next report we shall give further notes of the practice in this matter of Dr. Fuller, St. George's Hospital; Dr. G. Johnson, King's College; Dr. Black, St. Bartholomew's Hospital; Dr. Russell Reynolds, University College Hospital; Dr. Julius Pollock, Charing Cross Hospital; Dr. Broadbent, St. Mary's Hospital, and many others, for which we are unable to find space this week.

WESTMINSTER HOSPITAL.

CONGENITAL PAPILLARY TUMOURS REMOVED FROM A PATIENT
AGED TWENTY: RECOVERY.

(Under the care of Mr. FRANCIS MASON.)

SARAH W., aged 20, a servant, was admitted into the Hospital on August 9th, 1870. At birth, two tumours were noticed on the abdominal wall in the situation indicated by the accompanying engraving.



The larger one measured four inches and a half in the long diameter, and two and a half in the short. The smaller one was about the size of a pea. The growths were perfectly painless, and consisted of an aggregation of papillæ closely packed together, and exuding a very scanty but a most offensive secretion, which prevented her from retaining her situation as a domestic servant. Indeed, this was the only reason why she wished for surgical advice.

On August 9th, Mr. Mason excised the growths under chloroform, including both in the incision. The edges of the wound were brought accurately together with five hare-lip pins and twisted sutures, and the leg was subsequently kept flexed to obviate unnecessary tension on the parts. The patient rapidly recovered. Water-dressing alone was applied—the wound having healed by first intention, except in the track of two of the pins.

Mr. Mason observed that there were several points of interest in this case. The size of the growth was unusual, and its congenital nature was remarkable. It was quite stationary in its character, and perfectly painless throughout. It caused no inconvenience, excepting that arising from the foetor already alluded to.

Mr. Mason then referred to a somewhat similar growth of more delicate structure, having a velvety granular appearance, and occurring on the mucous membranes; and spoke of several cases he had recently

met with. One was a small growth, attached to the left tonsil; another was a tumour fixed to the edge of the soft palate; a third was connected with the uvula; and a fourth with the rectum. All these had been removed successfully—advice having been sought on account of the steady increase of growth, and the consequent irritation induced by their presence.

RICHMOND SURGICAL HOSPITAL, DUBLIN.

NOTES OF CASES OF ANEURISM.

(Under the care of Mr. WILLIAM STOKES.)

CASE I.—*Large Popliteal Aneurism Treated by Compression with O'Reilly's Presse Artère: Successful Result.* (Reported by Mr. Otho Galgey.)—P. D., aged 23, a labourer, was admitted under Mr. Stokes's care, on November 23rd, 1870. About five months previously, he gave his right ankle a twist; and about four months afterwards, while stepping from a car, his foot struck against a broken nail which was projecting from the surface of the cart, and, in endeavouring to recover himself, he violently strained his right foot. He had noticed a slight swelling in the ham a few days prior to the second strain; and from that time the tumour rapidly increased in size till three weeks before his admission, when he was obliged to give up work. Six months previously to his admission he contracted syphilis, for which he was treated solely by mercury. On examination, a large pulsating tumour distinctly circumscribed was found occupying the right popliteal space, somewhat ovoid in shape, and about the size of a lemon, more prominent on the outer than on the inner side. The limb was semiflexed, and any attempt to straighten it was attended with great pain. On applying a stethoscope over the tumour, a *bruit* was heard, which, when pressure was made on the femoral artery, completely ceased, as the pulsation did also. There was no evidence of cardiac complication. On the third day after his admission, the pain in the tumour became extreme; the tumour itself was also larger. At the time of the patient's admission the circumference at the knee was sixteen inches and a half, that of the opposite one being only fourteen inches. The circumference of the knee on the affected side was now increased to seventeen inches.

On November 28th, Mr. Stokes applied O'Reilly's *presse-artère*, which his colleague Professor M'Dowel had kindly lent him for use in this case. The pressure was kept on the artery for four days without any intermission, one of the clinical assistants having, with praiseworthy enthusiasm, remained beside the patient by day and night to see that nothing should occur to alter the position of the instrument. The pressure did not cause any pain or inconvenience. On one occasion during the four days a *presse artère* of another principle was placed on the artery near the groin, Mr. Stokes fearing that the continuous pressure on two points with O'Reilly's apparatus might produce a slough. The pressure of the second instrument was not borne for more than about ten minutes. O'Reilly's instrument had to be replaced, and the patient was almost immediately free from pain again.

On December 2nd, at 11 A.M., Mr. Stokes removed the instrument, and the tumour was found to be perfectly consolidated, without a trace of pulsation in it or pain. For two days the instrument was left loosely applied, and then was taken off altogether, and not the slightest pulsation was perceptible. There was a good deal of oedema of the leg, which rapidly subsided after the instrument was removed. The internal and external articular arteries were felt distinctly and pulsated strongly.

On December 8th, the circumference of the knee was found to be sixteen inches.

In some clinical remarks, Mr. Stokes said that this was, he believed, the first in which this particular form of *presse-artère* had been used, and in no case in his experience had he seen an instrument of the kind borne with such ease and comfort.

ROYAL ALBERT HOSPITAL, DEVONPORT.

EXCISION OF ANKLE-JOINT AND REMOVAL OF TARSAL BONES.

Under the care of W. P. SWAIN, F.R.C.S.,
Surgeon to the Hospital.

ALFRED RUNDLE, aged 11, was admitted into the Hospital on June 16th, 1864, with disease of the bones of the right ankle-joint and tarsus. Three years previously, in jumping from a height, he alighted on his right foot and twisted it. No notice was taken of the occurrence until two years afterwards, when the foot was observed much swollen, and he suffered great pain in walking. Shortly after this, matter formed in the joint, and was evacuated. He then became an inmate of another hospital, and left, because his friends would not consent to amputation of the leg. His condition, on admission, was as follows. He was a

healthy looking, light complexioned boy; he was unable to walk without a stick. The right foot and ankle were much swollen, but not painful to the touch. Two inches above the external malleolus was a sinus, down which a probe could be passed a considerable distance on to dead bone. On June 18th, Mr. Swain exposed the external malleolus by a crucial incision, and, finding the end of the fibula carious, removed it with the bone-forceps. The adjoining surfaces of the astragalus and os calcis were also carious, and the gouge was freely used. The wound, after this operation, nearly closed, but considerable inflammation was set up amongst the tarsal bones; and in August following, the remains of the ankle-joint were removed, and the entire remaining portion of the astragalus gouged away. The boy made a good recovery from this operation; but a constant discharge was kept up, and carious bone could be detected on all sides. On October 15th, Mr. Swain laid open a large cavity in the os calcis, from which he removed a large sequestrum. On January 15th, 1865, another operation was performed by Mr. Swain for the removal of carious bone, on which occasion all the remaining portions of the os calcis were removed, and also portions of the scaphoid and cuneiform bones. On two other occasions small portions of carious bone were removed with the gouge; and nine months after the last operation the wound entirely healed.

The boy's present condition is one of considerable interest. The accompanying woodcuts, taken from photographs, very well portray the



state of the foot. Fig. 1 shows the outer side of the foot, A denoting the original incision over the external malleolus. Fig. 2 shows the inner side of the foot, B marking the incision through which the removal of



the joint was completed. All the tendons in front of the foot are perfect, and he has entire command over his toes. The foot is nine inches long, the other one being ten and a half inches. It is well nourished and quite painless, and he can walk any reasonable distance without distress. The heel is raised about two inches from the ground, and is composed of fibrous tissue, in which there seems to be deposited some

bone, doubtless from the periosteum, left uninjured at the time of the operation. The internal malleolus and the remains of the scaphoid bone are closely approximated, whilst the remainder of the external malleolus seems to rest on strong fibrous tissue connected with the cuboid bone in front and the bony deposit in the site of the os calcis behind.

LEEDS INFIRMARY.

NEURALGIA OF JAW FOLLOWING TOOTH-EXTRACTION: TREATMENT BY PROFESSOR GROSS'S METHOD.

(Under the care of Mr. JESSOP.)

IN the JOURNAL for October 15th is an extract from the *American Journal of the Medical Sciences*, giving a description by Dr. Gross of Philadelphia of a form of neuralgia of the jaw-bones following tooth-extraction, and depending, as he thinks, on compression of the alveolar nerves by the osseous material deposited during the reparative process. The following would seem to be an example of this hitherto unrecognised affection.

Solomon K., a Jew, aged 18, had for some weeks been attending as an out-patient at the Leeds Infirmary on account of excruciating pain in the lower jaw. Six months ago, the left lower anterior bicuspid tooth was removed in a state of decay. In from a week to ten days afterwards, he began to suffer intense pain in the part, and occasionally a little blood oozed from the gum. He sought relief from many sources, but in vain; and during his attendance as an out-patient at the Infirmary, the usual antineuralgic remedies had been prescribed to no purpose. The affected gum was hard, and adherent to the bone; and pressure upon it aggravated the pain, which, though chiefly felt where the tooth had been, radiated to a considerable distance around. After having seen Dr. Gross's statement, Mr. Jessop admitted the young man; and, on October 20th, he cut down upon and removed with bone-forceps and gouge a portion of the alveolar border. The relief was complete, and continued up to October 29th, on which day he was discharged. He has not since been seen.

MUSEUM NOTES.

ANNUAL MUSEUM OF THE BRITISH MEDICAL ASSOCIATION.

WITH regard to the Annual Museum of our own Association we may remark, that it might be well that the College of Surgeons should depute some one to select the objects which would be acceptable. In some instances, duplicate photographs would be obtainable at once, and in others the drawing or specimen could be copied by photography at a very slight expense. We have already mentioned several of the most valuable of those shown at Newcastle. The united fracture of the skull described in our number for August 20th, shown by Mr. W. Emmerson, was well worth reproducing; and the same may be said of an excellent drawing by Mr. Jeaffreson of Newcastle, showing a most unusual form of dislocation of the humerus. Amongst other interesting objects which were exhibited at Newcastle, and which we have not yet described were the following.

Enlarged Superficial Veins of one-half of the Abdomen.—A photograph exhibited by Dr. Charlton well exhibited this remarkable symptom. The enlargement was limited to the left side, and the various branches of the vein were of enormous size. On the other side there was not the least departure from the natural condition. Dr. Charlton's notes stated that the man had no heart-disease. In all probability the enlargement was secondary to obstruction of the left common iliac bone; but, as the patient is still living, its further elucidation must be deferred. We are not aware of any published illustration of this peculiar symptom, or of any dissection in proof of its cause. It is sometimes referred to visceral disease; but when it exists in the very definite way in which Dr. Charlton's patient showed it, it is probably due to more direct venous obstruction. Its non-symmetry also clearly points to the same conclusion. Cardiac disease would not account for one-sided dilatation of the veins.

Specimen and Drawing illustrating the results of Excision of the Wrist-Joint.—Exceedingly few specimens from cases in which the wrist has been excised have as yet found their way into our museums; and we are induced to give special notice of one such which was exhibited at Newcastle. The patient, a man then aged about 26, was under the care of the late Mr. Stanley in St. Bartholomew's Hospital about twenty years ago. Resection of the wrist by the old method of cutting through all the tendons, etc., at the back of the joint was performed. The man lived afterwards for twelve years; but his hand was in the

condition represented in the appended cut, and quite useless. The wrist and metacarpus were ankylosed in one mass, and the fingers were stiff. One sinus never healed. (Fig. 1.) The man at length died of

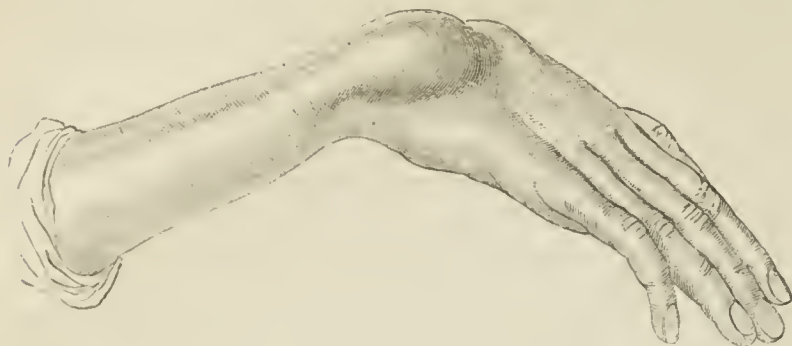


FIG. 1.—The hand after excision of the wrist joint.

phthisis, and his hand found its way to the London Hospital museum, where its skeleton is preserved. The condition of the bones is here shown. (Fig. 2.) There was a portion of necrosed bone close to the trapezium which had been the cause of the sinus. The radius, the remains of the carpal bones, and the ends of the metacarpus, were firmly welded

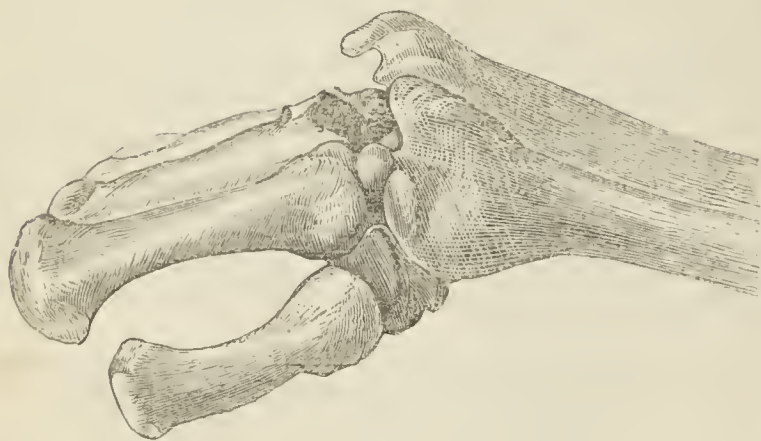


FIG. 2.—Bones of the wrist, carpus, etc., from the same case.

together. We gave woodcuts a few months ago from the casts recently presented by Mr. Hancock to the College Museum, showing an excellent result after removal of the lower part of the radius for a large tumour. No one can doubt that recent improvements in operating and in after-treatment have had the result of making excision of the wrist a much more hopeful procedure than it formerly was. At the time when it occurred, Mr. Stanley's case, so far from being worse than the majority, was one of the best. Of late years, there have been not a few very good results from this operation, though still, we believe, a very large proportion of failures. The operation is still sufficiently *sub judice* for it to be well worth while to substantiate its merits by the exhibition of good drawings of the first condition and of the final result, together with the parts excised; and we hope that some documents of this kind will be produced at our annual museum at the Plymouth meeting next August.

REVIEWS AND NOTICES.

BODY AND MIND: AN INQUIRY INTO THEIR CONNECTION AND MUTUAL INFLUENCE: Specially in reference to Mental Disorders, being the Gulstonian Lectures for 1870, delivered before the Royal College of Physicians, with appendix, by HENRY MAUDSLEY, M.D. Lond., Professor of Medical Jurisprudence in University College. Macmillan and Co., London: 1870.

THESE lectures are eminently interesting in themselves, but they are more particularly so as indications of the direction towards which the steps of the student of mental disease are tending.

We will not dwell on the first lecture, which is mainly a masterly *resumé* of the materio-metaphysical portion of the author's larger work on "the Physiology and Pathology of the Human Mind," showing how intimately mental and bodily functions are connected, and how feeble is the idea of studying the mind apart from the body. If anything, Dr. Maudsley is more pronounced in his medical materialism, and hits out all round more freely at the professors of pure psychology.

Nor is it necessary to linger long over the second lecture, which considers the insane neurosis, the conditions, hereditary and accidental, which tend towards its production, and its evolution in the shape of idiocy and other forms of brain degeneration.

It is the third lecture which requires special mark and mention. In it Dr. Maudsley repeats his own and all other psychological systems of classification of mental disease, and accepts most fully the great dogma of Griesinger, and the system of classification first promulgated by Skac. No more is heard of "effective" or "identical" insanity, with their subdivisions founded on mental systems; on the contrary, we note with great delight the statements (not altogether novel in tone or verbiage) contained in the following extracts from pp. 78 and 79:—"Again, how vague and unsatisfactory the accepted psychological classification of insanity, under which forms of disease distinct enough to claim separate descriptions are included in the same class! It is obvious that we learn very little of value from an account of the treatment of mania generally when there are included under the class diseases so different as puerperal mania, the mania of general paralysis, syphilitic, epileptic, and hysterical mania, each presenting features and requiring treatment in some degree special."... "We must learn to distinguish well, if we would teach well, to separate the cases that exhibit special features and relations, and to arrange them in groups or classes according to their affinities, just as we do habitually with general paralysis, and as I did in my first lecture with epileptic mania." Following out this plan, notice is taken of "hysterical insanity," "insanity of pubescence," "periodic and recurrent insanity," as connected with the sexual apparatus, the "insanity of pregnancy, puerperal insanity, and the insanity of lactation," "sympathetic insanity," "phthisical mania," "delirium of exhaustion," the mania of alcoholism, and "idiopathic insanity." Curiously enough, no notice is taken of senile insanity, or of one or two other well-marked varieties.

It is the utter relinquishing of the psychological and symptomatic systems of nomenclature of mental diseases by Dr. Maudsley, which makes this work remarkable. No doubt it would have been remarkable had not his *magnum opus* been in existence. But it is a greater and a better book (although a smaller volume), in that it resiles from the practical errors of its big brother, and directs the student of mental disease towards the only goal at which he can find a solution of his difficulties.

NEW BOOKS AND NEW EDITIONS.

BALFOUR STEWART'S *Lessons in Elementary Physics* (Macmillan) is one of those really able and skilful elementary books which make one long to be at school again. It is not often that one can take up a school-book such as this and read through a dozen consecutive pages, attracted by the clearness and simplicity of the diction and the reasoning, as if one had taken up a good magazine article or an interesting newspaper. But this is how we have been entrapped. We took up these lessons meaning to skirmish through them and test here and there the method and the proofs, and have been fairly drawn into an hour's consecutive reading of the excellent chapters on Energy and the Forces of Nature. This is an unexceptionally good handbook, in which the whole subject is handled with masterly clearness and insight; and by those who are good physicists it will be found as pleasant reading as it will be profitable to those who wish to become so. If all masters were as complete in their knowledge and well grounded in their method, scholars would be more numerous and less shallow.

Felo-de-se. By J. G. DAVEY, M.D.—In this paper, reprinted from the *Proceedings of the Medico-Psychological Association*, Dr. Davey declares that the act of suicide is at all times and under every kind and variety of circumstances the effect of pre-existing cerebro-mental disease—the mere effect of an antecedent cause. He claims, therefore (as in a paper read before the Association in 1860), the repeal of the present law in regard to *felo-de-se*. He claims for the self-murderer his abolition or freedom from all and every responsibility, and, as a sequence, the non-liability of his heirs or representatives to suffer, either in person or in purse, in any way whatsoever. It is a very humane view.

* "The Physiology and Pathology of the Human Mind", p. 323.

REPORTS AND ANALYSES

IN

MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

S H E R R Y.

THERE is no more powerful logic than that of facts; and we have been much struck, in looking through the returns of the consumption of wines in the United Kingdom, to find that the quantity of sherry upon which duty was paid during the past year was almost equal to the total quantity of wine from other countries than Spain. This is the more remarkable, because the alteration of duties in 1862, which did so much for the wines of France and Germany, had the effect of placing sherry at a corresponding disadvantage, inasmuch as the new scale of duties was 150 per cent. in favour of light wines, such as claret, etc., as compared with port and sherry. The medical profession has no doubt done much also to increase the demand for light wines; and yet, on reflection, it is not difficult to see that there are many reasons which, when taken singly, would not appear to be of much importance, but have, nevertheless, almost imperceptibly influenced the public in their selection of sherry in preference to all other wines for general household use. The almost unlimited quantity of wine produced in Spain has made sherry a comparatively moderate priced wine, while its intrinsic value bears a more definite relation to its selling price than is the case with the growths of other countries where the value depends, to a great extent, upon the reputation of some particular estate, vintage, or district—matters which are at best but uncertain guides to actual value. The produce of Spain has always been shipped to this country under the name simply of sherry; and its price, consequently, has been determined more strictly by actual value. Beyond this, sherry has some decided advantages over most other wines. It does not, like port, deposit a crust, and thus become liable to lose its brilliancy by removal or variations of temperature. As compared with light wines, such as claret and hock, it has the further advantage of economy, from its keeping good in the decanter for any length of time—a matter of considerable convenience, as it is thus always at hand whether required for use at meals or on other occasions. Considered medically, sherry is a wholesome stimulant, more perfectly fermented than malt liquor; and its extractive matters are undoubtedly more digestible than those of either malt beverages or of port and other kinds of wine. Many kinds of light sound sherry have bitter qualities, such as are especially marked in Manzanilla, which make them distinctly tonic and appetising; and it harmonises better than other wines with all kinds of light vegetable tonics and bitters calculated to improve an enfeebled digestion. It admits readily of dilution, without losing its agreeable characteristics. We must confess to have found much interesting information on the subject of wine in a pamphlet published by Messrs. W. and A. Gilbey—*A Treatise on the Wines of the different producing Countries*. The chapter headed “The Chemistry of Wine” contains some statistics and information of special interest to the medical profession, compiled by some of the most eminent analytical chemists of the day. The generally increased consumption of wine is no doubt due to the fact that its present cost is only about one-half of what it was ten or twenty years ago; and this decrease in price is unquestionably owing in a great measure to the fact that wine has become more strictly a commercial article, to be obtained almost every where of grocers or others, just in the same manner as we procure the other ordinary articles of daily consumption; the grocer obtaining his supplies from some well known house of established reputation, and selling at certain fixed prices. We have been turning attention lately to these wines; and the quality of moderate priced wines purchased in this way proves to be of a far higher average than that of wines of greater pretension sold by vintners and small wine-merchants. The subject is one of considerable dietetic importance; and we propose to detail some of the results of the examinations which we have instituted. Cheapness is by no means incompatible with good quality. In the south of Europe, grapes are the most prolific productions of the soil; and there is, indeed, no reason why wine should not ultimately be sold in this country at even much lower prices—the high rate of duty, expense of conveyance, and other intermediate charges, now forming an item much more formidable than the first cost of the wine itself. The best way we know to encourage an honest competition, likely to bring about this desirable result, is occasionally to test and report on the relative qualities and prices of the cheaper wines offered for sale.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, Medical Appointments and Trials, Hospital and Society Meetings, important Inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, JANUARY 7TH, 1871.

1870-71.

SHORT has been the shrift and sharp the doom which fate has pronounced on some of the best conceived and largest projects affecting the interests of medicine during the past year. A large and statesman-like measure of medical reform was suggested to the Government by Mr. Simon, and accepted by Earl De Grey as a Government measure. Its most important principles were rather thrust upon the Medical Council than endorsed by them; and, amid the war of corporations which it excited, it perished under the fires of professional wrath, because it was partly emasculated to avert corporate opposition, and because, in deference to the same influences, and in defiance of the expressed wishes of more than three-fourths of the whole profession constitutionally set forth in petition and embodied by the British Medical Association, the Government desired to postpone without definite pledge the question of altering the constitution of the General Medical Council, and of giving to the profession the right of direct representation in that body. So far as our own Association is concerned, the feeling of its members has been carefully ascertained at successive general meetings, very differently composed in the mass, at Dublin, Oxford, and Newcastle; then at numerous branch meetings; and, finally, at a special meeting of the Association called in London at the very crisis of legislation.

The verdict was everywhere enthusiastic and unequivocal; and the review of the proceedings will show that it is more just to say that the executive have been moved by a sense of fidelity to their constituents and of anxiety to do justice to convictions which more than once culminated in enthusiasm, than that they outstepped their commission in refusing to accept Lord De Grey's Bill as it came to the House of Commons, or that they enforced their own peculiar views. The Medical Reform Committee have, during the year, involved themselves in long and costly journeys, much anxiety, difficult deliberation, and large sacrifice of time and labour, to carry out the unequivocally declared wishes of the great majority of the profession, which they have used all the means in their power to ascertain. It must not be forgotten that, in spite of all, at Oxford the caution shown by the Committee was misinterpreted, and that they were vigorously reproached for slowness in carrying out these wishes. The opposition of the Association induced Lord De Grey to postpone his Bill, as he was not then prepared to consider the matters which the profession at large had declared to be vital. We should regret this if we did not believe that the broad principles which the Bill embodied, and which are those that have always been cherished by our Association, are imperishable and still walk the earth. The next measure of medical reform must embody them, and will hardly fail to deal with the questions last year put aside. The action of our Association has been renewed in the spirit of progress and in the sole view of the broadest interests; and we augur the best results from it.

The amalgamation of the medical societies in the metropolis met with a similar fate, owing mainly, as we believe, to a want of sufficiently liberal consideration of the claims of obstetric medicine to its place in the hierarchy—perhaps, we should rather say, to a want of maturity in the consideration of those claims. For this, too, we anticipate a happier revival.

All efforts to forward legislation on other important subjects in State

medicine were eclipsed almost as soon as they appeared by the overshadowing importance of a great measure of national education. In carrying out this measure, we hope to see our profession take a part suited to their scientific education and intelligence.

Throughout the year, a Royal Commission, mainly procured by the efforts of the British Medical Association and of the Social Science Association, which co-operated with it, has elaborately considered, and is about to report on, the much needed revision of our system, or rather chaos, of sanitary legislation, and on the creation of a scheme of preventive and public medicine. The deliberations of the Dublin meeting laid the basis of this Commission; the scheme was elaborated at Oxford and in laborious conferences of our Joint-Committee, in which Stokes, Farr, Acland, Rumsey, Sibson, Stewart, G. W. Hastings, and many others, took an active part. The document drawn as the basis of the inquiry was among the most complete and suggestive ever laid before the Government; and to the deputation which presented it, our Association contributed the most highly representative names in the three kingdoms. The report of the Commission is about to be presented; and we have reason to believe that, although the inquiry was more limited than could have been wished, a scheme will be proposed, of which the realisation will mark a great epoch in sanitary medicine, and introduce professional changes of primary importance and of a welcome character. No work which the British Medical Association has ever undertaken more highly honours it, or tends more strongly to the elevation of the profession and the public good. The institution of this Commission, in the careful and enlightened way in which it smoothed its labours, and the importance of the results, will be a permanent monument to the usefulness of this Association and one of its enduring claims to professional affection and respect.

We shall merely name the arrested, but now renewed, negotiations of the London corporations for the purpose of establishing a conjoint board; from our knowledge of the existing state of the registration, we fear this will prove but a small step towards the unification of examinations, although it will help to put the introduction to general practice in England on a more satisfactory footing. Medical education has improved under the better regulations adopted by the examining boards in accordance with recommendations of the General Medical Council, notably in respect to clinical examinations, and to the teaching of practical physiology and practical surgery. Much remains to be done in the latter classes, of which we purpose next week to speak.

Mr. Syme, who in some degree led the van on this subject of educational reform, has left the shadow of his loss to darken the same year which has taken from us Simpson, Von Graefe, Clarke, and Copland; their memory will live while medicine lasts; we have done our little best to honour it with pen and graver.

From the shadow of the past we pass out into the sunlight of the future. There is a bright prospect before us. We trust, not without authoritative reasons, to see the British Medical Association make an important contribution to the official settlement of the question of Medical Reform by agreement between the profession,—of which outside of the corporations it is the great representative,—and the Government. We trust to see the strenuous labours of the Royal Sanitary Commission fructify for the good of the state, and for the honour and benefit of the profession in its public duties and relations. We have already sketched a programme of Naval Medical Reform, which the influence of our Branches will, we trust, do much to realise. The forthcoming general meeting of the Association in the south-west of England promises to be both pleasant and profitable. It will take place in a peculiarly lovely and interesting district, little known to most of us, who are more wont to explore the beauties of foreign than of home scenery. The reception offered will, we can already foresee, be generous and warm-hearted; the profession in these counties will, we believe, rally to the honour of their county fame as they have done in the last two years in the north of England; and we have every reason to trust that the visit will be scientifically profitable, and will add considerably to our numbers. The orations cannot fail to be weighty, coming

from Dr. G. Johnson and Professor Lister. In other respects, the programme which we publish will speak for itself.

Looking at what our Association accomplishes, not once a year merely, but in untiring and continuous social, political, and scientific activity; looking at its great works achieved in the past, and those at this moment in progress, and considering what it accomplishes for the profession, in unity, force, and progress, and what it gives to it in value, at the cost of a singularly modest subscription, we believe that it stands unapproached by any other professional association whatever. Its solid onward march, greatly accelerated during the last five years, promises to confederate the whole profession in an honourable and fruitful union, aiming solely at the highest and best purposes, and achieving a sincere, wide-spread, and thoroughly organised co-operation throughout the profession, which numbers, intelligence, and high intent, will render fairly irresistible.

THE POOR-LAW MEDICAL SERVICE OF IRELAND AND ENGLAND.

THE vast services which the dispensary and workhouse medical officers of Ireland have rendered, in improving the sanitary condition and decreasing the taxation of the country, have been recently demonstrated by a conclusive array of facts, logically stated by able writers, and admitted as proved by Parliament and the press. Unnoticed and neglected till 1834, and called upon in 1851 to inaugurate and carry into effect a great system of State medical relief, their skill and devotion to trying, incessant, and ill-paid labours have diminished the sickness and mortality, and reduced the mass of pauperism, debility, and orphanage weighing on the rates, to an extent which could hardly have been hoped, and could not have been expected. Some eloquent figures will attest this. The total number of deaths from epidemic diseases in Ireland for the decade ending 1841 was 381,249; for that of 1851, 553,801; and of 1861, 189,660. In the decade ending 1841, deaths from small-pox numbered 58,000; in the year 1867 there were only 20 deaths, and in 1868 only 23, from this cause. Dr. Rogers has analysed a parliamentary return to the House of Commons, moved for by Mr. W. H. Smith, relating to the five years 1864-68, and has given a comparison of the death-rate, the Poor-law expenditure, and the expenditure on medical relief, in England and Ireland. The inevitable conclusion is, that the smaller death-rate and lower general expenditure on pauperism in Ireland are mainly due to the labours of the dispensary and workhouse medical officers of that country. From the calculations of *Dispensarius*, it appears that, while the available number of practising physicians and surgeons in Ireland is about 2,000, the total number of medical officers in Ireland is about 1,000; in other words, that every second practising medical man in Ireland is a Poor-law medical officer. Of the other moiety, about 800 are in practice in the cities and great towns; so that the maintenance of the health of the inhabitants of the rural districts of Ireland is absolutely dependent on the efforts and talents of the Poor-law medical officers. The average number of the population attended by each appears to be above 1,200, and the area of country which each traverses in rural districts varies in extent from forty to sixty square miles. Charged with duties so large, entrusted with interests so weighty and various, and fulfilling duties so onerous, for insufficient remuneration, and under conditions often peculiarly vexatious and distressing, the Irish dispensary medical officers have resolved to form themselves into an Association, destined to consolidate their means of intercommunication, to advance their interests, to redress their grievances, and to aid in the solution, by professional and public discussion, of the questions affecting themselves and those with whose health and life they are charged. In this they are adopting a course which their brethren in England have already pursued with great advantage to themselves.

The propriety and usefulness of such Associations are confirmed by every consideration of public and private interest. In accepting the proposition to devote space and energy to the objects of the two Associations, we are faithful to the traditions and objects of the British

Medical Association, which aims at the elevation of the profession, the promotion of unity in all its ranks, and the furtherance of its interests. Such efforts tend to the public, not less than to the professional, good. The adequate remuneration of the medical officers would be the just reward and the best guarantee of their complete devotion to their difficult and absorbing duties. The elevation of their status by every means is a boon to the State which employs and relies on them, no less than to themselves; and the discrimination of fit from unfit objects of the relief which they bestow in the name of the State is dictated by the most urgent principles of economy and good government. There are several important objects which we conceive that such an Association may, therefore, usefully aim at effecting. One is, that the dispensary and workhouse medical officers should receive an adequate remuneration. This may be effected partly by a combined political and social pressure in that direction, and partly by the detail in our columns of individual cases, which can be severally attacked in our pages, and brought in turn, by the machinery at our command and at theirs, before the bar of public opinion. Next, that, in the faithful performance of their duties, they shall receive courteous, considerate, and just treatment from the guardians. This is to be ensured by the like means. We shall be prompt to notice individual cases as they are brought to our attention, and shall point out in what way they may be brought under public condemnation, externally to, as well as within, the profession.

The broad and effective plan, which seems to promise in the end the best basis for satisfactory reform, is:

- I. That the whole, not half, of the salaries, at present, should be paid out of the Consolidated Fund by Government; thus giving to the Poor-law Medical Service a status as a branch of the Civil Service; and that the salaries should be progressive, with fixed or permissive superannuation. This would take £80,000 off the poor-rates—a matter worth the consideration of town and county representatives.
- II. That there should be opportunities of promotion from worse to better dispensaries; or, if desirable, from dispensaries to workhouse hospitals, so as to improve the conditions of service as opportunities occur.
- III. That the Poor-law medical officers should be recognised and remunerated as health-officers, or officers of preventive medicine.

This programme seems to us equally applicable and suitable to the Poor-law medical officers of England, to whose attention we commend it.

It has been aptly pointed out that thus much at least has already been done for the medical departments of the army and navy, with the effect of benefiting both these and the objects of their care, although not yet sufficiently. Surely the medical officers charged with the health of the great armies of the sick and destitute, and with the control of devastating cruel epidemics, have similar claims. The national health and prosperity depend in no less a degree, and in some respects more immediately, upon them. To this great programme the Associations of Poor-law Medical Officers in Ireland and England may, we feel satisfied, profitably devote their most strenuous and enthusiastic efforts. They will assuredly do so the more effectually from co-operating so far as the differing circumstances of the two countries will allow, and to the full extent of their close sympathies and parallel interests. We trust that their labours will be rendered somewhat easier and more fruitful by their constant intercommunication in our columns; and we feel assured that, so far as the political and professional influence of the British Medical Association can be brought in aid of these legitimate and important objects, it will never be sought in vain, whether it be appealed to as a whole or in its county branches.

Familiarity with the trials and achievements, the aims and grievances, of the great body of Poor-law medical officers, and the individuals most affected by them, will breed more pressing sympathy, a more clear perception, and a fuller readiness to give ear and help in the public and private efforts of that service, and to its claims for a

higher status and a more just provision from the State, which we have here briefly and imperfectly summarised. Towards this aid we now appeal for the co-operation of each and all of the medical officers of the Poor-law Services of England and Ireland. As our mentors and correspondents, and as members of the British Medical Association, each can contribute an important quota. The mere act of association will confer an impetus and an influence invaluable, and not yet perhaps sufficiently appreciated, and which there has never yet been the like opportunity of exerting.

THE FORTHCOMING REPORT OF THE ROYAL SANITARY COMMISSION.

WE believe that the main object of the Report of the Royal Sanitary Commission will be to simplify and consolidate the local government of the country. With this view it is under discussion to propose to treat the local government of the country as one system, of which the Poor-law is only a part, and that there should be one chief minister over the whole, and that he should have an under secretary for each sub-department; but that he should, as far as possible, employ the same officers to carry out the whole laws. The Board of Guardians, changing its designation to that of Board of Local Government, and incorporating by amalgamation the existing local boards under local government Acts, more than seven hundred in number, would be the local authority in rural districts on all subjects which come under the local government Acts (such as water-supply, the overcrowding of houses, inspection of diseased meat, as well as purely medical hygiene), and their medical officers and others would be employed, as has been suggested by the British Medical Association, both for Sanitary and Poor-law administration. The inspectors of the central department, with whom the existing inspectors belonging to four or five different central departments, would be organised for co-operative duty. The medical officers of health would inspect the administration of the whole law. The district union medical officers (3435 in number) would act also as local sanitary officers of differing grades; rural relieving-officers would also receive duties and salaries as inspectors of nuisances; the number of central inspectors would be increased, and their areas reduced. The Poor-law department would thus become a constituent part of a new department of Public Health and Relief; and the medical officer of the Privy Council would be transferred and would act as principal medical officer of the new department. Being placed thus in direct relation with the existing staff of 3000 to 4000 medical officers above referred to, he would, it is urged, be in a position to receive early information from, and diffuse valuable scientific advice and direction on preventive measures through, this carefully and widely localised body of skilled officers, with great benefit to the public health, and of course much more effectively than can now be done by the Privy Council under the Diseases Prevention Act.

DR. ROBERT BARNES has been elected an honorary member of the Medical Society of Victoria.

MR. SOLLY, after a long period of faithful service, has resigned the office of Surgeon to St. Thomas's Hospital.

WE learn with sincere pleasure, which we feel sure will be shared by our Associates, that Mr. Holmes has now fully resumed his active duties at St. George's Hospital.

WE are glad to see that the Lord Chancellor, on the recommendation of the Lord-Lieutenant of the County of Worcester, Lord Lyttelton, has given directions for the insertion of the name of our old associate, Mr. J. Hyde Houghton, in the commission of the peace for Dudley.

WE learn that the results of the recent examination in Arts for the Membership and Fellowship of the College of Surgeons of England will be communicated by letter to the three hundred and fifty candidates about the latter end of the present month.

WE believe that no essays were sent in at Christmas for the Collegiate Triennial or Jacksonian Prizes of the College of Surgeons. No award for the former has been made since 1858, or for the latter since 1867.

PROFESSOR LISTER'S paper on the antiseptic treatment of wounded soldiers, which appeared in the JOURNAL of September 3rd, has just been translated into French, and published in the *Lyon Médicale* of December 18th. A German translation of this paper appeared some time ago.

A "BRITISH MEDICAL AID SOCIETY" is circularising the profession, seeking to secure offers of cheap medical attendance for the middle classes whose incomes average £300 a year and less. From the terms which it proposes, this Society should more properly be called the British Medical Destruction Society. With appropriate foresight, it proposes, as an inducement, to establish an asylum for its broken-down medical officers and their unhappy families.

It is announced that Miss Elizabeth Garrett, M.D., is about to marry. The problem of the compatibility of marriage with female medical practice, which has been much discussed, will thus be partly tested. In a great city, however, and under otherwise favourable circumstances, it will no doubt offer less difficulties than in smaller towns and rural districts, or where the ordinary hardships of general practice are to be encountered. Comparatively few ladies can hope to attain the exceptional mental and material advantages which Miss Garrett enjoys.

WE believe that the choice of a successor to the vacancy created at St. Thomas's Hospital by the retirement from office of Mr. Solly will probably lie between Mr. W. Mac Cormac, lately of Belfast, who has achieved a considerable surgical reputation in Ireland, and won laurels for British surgery at the hospitals of the war, and Mr. Wagstaffe, a young surgeon educated at St. Thomas's, and who has done excellent work in the hospital for some years, and is known also for good work done under the auspices of the Medical Department of the Privy Council, especially for his Report on Venereal Diseases in London.

A FINE EXAMPLE.

THE corner-stone was last week laid of a building to cost over £13,000, for a new Infirmary at Wigan. Mr. J. Lancaster gives £3000; the Wigan Coal Company £3000; Lord Crauford £3000; and Misses Giddon £2000. The employes of the Wigan Coal and Iron Company have contributed by fortnightly donations £2482 13s. 11d. Altogether there is in hand more than £28,000.

MR. GLADSTONE'S IRISH CHURCH FUND.

IN reply to several persons interested in the hospitals of Ireland, Mr. Fortescue has announced that the Commissioners of Church Temporalities in Ireland will probably be obliged to obtain a large further loan next year on the security of the Church property; and as their first business will be to provide for punctually paying off the interest and principal of their debts, there is no immediate prospect of any surplus of the Church funds from which to make grants to hospitals.

THE BROWN BEQUEST.

NEGOTIATIONS now practically completed have finally secured, for the benefit of science and of humanity, the appropriation of this now important fund for the foundation of an Institute of Comparative Pathology, in which the diseases of animals will be studied in their relation to those of man, under the charge of accomplished experts. In the course of the eighteen years that the Brown legacy of £15,000 has accumulated, it has rolled up an actual capital of £35,000. The conditions of the bequest and the provisions of the Mortmain Act interposed so many difficulties that, had not great energy and liberality been shown by the medical members of the Senate of the University of London in combating the legal difficulties at every step, this fund would have re-

verted, under the eccentric conditions of the founder's will, to the odd purpose of teaching Welsh in the University of Dublin, where few people, we may suppose, would have cared to learn it. Rather than the valuable aid to science now secured should be lost, Dr. Quain, a member of the Senate, recently offered personally to present £2,000 for the purchase of a site. Mr. Cunliffe, the well known banker, has, however, since generously and spontaneously assumed this charge, and has vested in the hands of Dr. Sharpey and Dr. Quain, as trustees, the sum necessary for the purchase of a site, etc. This has been selected, and within no distant period we shall have in London an institution with an income of about £1,500 a year, where the diseases of animals will be treated and studied, and which we may fairly expect to confer not only immediate and material benefits on the great agricultural interests of the country by the elucidation of the causes and relations of epizootic diseases, but probably greater if more remote advantages in the research after the intimate causes and origin of disease in animals, in whom they can be most advantageously studied by methods calculated to shed light on the mysteries of disease in man.

TWO CHRISTMAS TREES.

MRS. PRIESTLEY presided on Wednesday at the despoiling of a Christmas-tree which she had contributed to furnish for the children in the wards at King's College Hospital. Reading this year much of such Christmas-trees, as that of the Crown Prince at Versailles, where bearded soldiers divided the lots, and our diplomatic representative, Mr. Odo Russell, drew the chief prize—an ominous sword-knot—the interest of such a scene as this and its striking surroundings of peace, charity, and tenderness, is but the more impressive.

GOVERNMENT AID TO SCIENCE.

WHILE Mr. Haviland was engaged upon his sanitary maps of the counties, exhibiting chartographically the localisation of diseases, he found, on proceeding northwards of the Mersey, that the government maps were not complete, a large number of them not having the registration-districts defined; whilst for the whole of the north of England the maps were deficient. These defects had to be remedied, and an unexpected outlay of time and money was the result. To defray the cost, he applied to the Lords of the Treasury for a small grant, which, on the recommendation of the Registrar-General, was accorded to him. This graceful and useful act deserves to be put to the credit of Mr. Lowe, whose judicious grant—likewise at the instance of Major Graham—of the sum necessary to distribute the new Nomenclature of Disease compiled by the Committee of the London College of Physicians, will also be remembered to his honour.

THE LONDON SMALL-POX EPIDEMIC.

SMALL-POX killed last week in London 110 persons, being an increase of 28 on the return for the week preceding, and the cases admitted this week for treatment at the temporary hospital are of the severest type, shewing no signs of remission, such as precedes the abatement of an epidemic. We believe that at no previous period since the Compulsory Vaccination Act was passed (1853) has the weekly mortality from small-pox ever amounted to even 100; and that, making every allowance for increase of population, the present epidemic must be regarded as having attained an intensity almost if not quite unparalleled in the metropolis. Indeed, this seems to be the conclusion which the Registrar-General wishes to be drawn when he shows that, taking the five weeks of greatest small-pox mortality in 1863, which was the severest epidemic year we have had since 1838, the weekly average of deaths was 67, while during the last five weeks the average has been 71 per week. True, in 1863 there were 1996 deaths from small-pox in London, while only 958 fatal cases were registered last year; but in the former year there was a higher weekly average maintained over several months, whereas the epidemic of 1870 did not develop itself until late in the year, and then sprang up almost suddenly to a height which, if it be maintained for any length of time, will throw the record of previous years into the shade. Thus the deaths

from small-pox only numbered 99 in the first thirteen weeks of 1870; in the next thirteen weeks they were 118; in the third quarter they were 157; and in the last thirteen weeks of the year 584. There is—or we ought rather to say there was—this one hopeful feature about the present epidemic, that it has been localised to such a degree that, out of 584 deaths, 292 occurred in one section of the metropolis; so that had the guardians done their duty, or the law been enforced, a *cordon sanitaire* would have been drawn round the infected quarter, while the rigorous enforcement of vaccination amongst the unattacked, and of the isolation of all actual cases, would in time have subdued the outbreak. But, thanks to the freedom in which it is the habit of Englishmen to delight, and to the tenderness of our high government officials towards local authorities who neglect their duty, the flame of infection has spread into other quarters, and who shall say when and at what cost of life it will ultimately burn itself out? The Registrar-General draws attention to the subdistrict of St. John, Westminster, where last week out of a total of 38 deaths from all causes, there were 12 fatal cases of small-pox, nearly all the victims being unvaccinated children. The medical department of the Privy Council has a great responsibility upon its shoulders at the present time as regards this London small-pox epidemic; and the public will watch both anxiously and critically the steps it may take or omit to take towards such an enforcement of the Vaccination Act upon the grossly neglectful guardians as will render life in the metropolis comparatively secure against so fell a disease. There is at any rate one obvious fact which is not likely to be lost sight of; namely, that, while the law makes vaccination compulsory on every child born, numbers of parents set the law openly at defiance with impunity from any penalties except those which small-pox itself entails upon its victims. How much longer is this to be permitted?

THE PATHOLOGY OF THE PAST AND FUTURE.

AT the annual meeting of the Pathological Society on Tuesday, Mr. Hilton was elected President; and Dr. Quain, who has admirably filled the chair during the last two years, took his leave of the Society in that capacity in a brief address at once graceful and suggestive. Dr. Greenhow, in proposing the vote of thanks to him, happily characterised the services of the retiring president, and accurately interpreted the feelings of the Society, which applauded with more than usual warmth his terse sketch of the services to the Society by Dr. Quain from the day of its foundation, in which he took an active part, through the long series of years in which he has served successively, for five years secretary, then for eleven years as treasurer, and finally as president. Dr. Greenhow pointed out that the element of stability infused into the management of the Society by the knowledge and experience in its affairs gathered by constant attendance at the Council during seventeen years had repeatedly proved of service. It had been a great element in the success of this singularly flourishing and valuable Society, that it had united conservative with liberal principles. While a few men, who have been willing to give steady attention to its interests, had been retained in office for long periods, the elections to the Council have taken quite as much into consideration the working devotion to its scientific business of the youngest members as the age and rank of the oldest. A very few years of earnest work in pathology have always afforded the most readily admitted reason for inviting any member to a seat in the Council; and to this intelligent study of the real interests of the Society, with the recognition in equal degree of the various kinds of claims, the remarkable success, uninterrupted harmony, and increasing usefulness of the Society may in no small measure be attributed. Dr. Quain, while reviewing the past somewhat in this sense, and dwelling on the value of the vast stores of scientific observations contained in the splendid series of the Society's volumes of *Transactions*, cast a glance towards the pathology of the future, of which he drew a flattering horoscope from the analysis of the signs of the pathology of the past. The great strides which have been made in the exactness, significance, and faithfulness of pathological research during the last twenty-four years entitled us, he thought, to hope that for the question which we now ask in inspecting the morbid structure—What is it?—we

may hope presently to substitute the still more pregnant query—Why is it? And this, too, with a hope of satisfactory reply. Means to this end are visible in the researches conducted by members of the Society in connection with clinical investigation, in the proposed chemical researches conducted under the Medical Officer of the Privy Council, and not least in the working of Comparative Pathology—illustrated by the report of the Cattle Plague Commission; to this department of science the Brown trust, in the hands of the University of London, amounting now to more than £30,000, will greatly contribute. So pathology will more and more completely fulfil its mission of throwing light upon the genesis of disease, and will afford a more solid foundation for therapeutic practice. This pregnant text is an admirable one for the working members of the Society; nor can any one hope for a more brilliant or delightful reward of his labour than to be one day enrolled on the list of those who have effectually worked towards this end.

EPSOM COLLEGE: PROPERT LIBRARY.

THIS library has now been completed and opened. What was the old school-room has been fitted up with handsome book-cases and materials for making a comfortable and useful library. The Debating Society and the Natural History Society hold their meetings in it. We trust that donations of books will now be made by those interested in the welfare of the library. It is intended not to confine the class of books to school-books, but also to include modern classical authors, both English and foreign. The Rev. Head Master at the College, or Mr. Wagstaffe, the Treasurer, 122, Kennington Road, will be happy to receive any such contributions.

WEST LONDON HOSPITAL.

A WING, capable of holding fifty beds, has just been added to the West London Hospital. House-building is going on at a rapid rate in the western districts of the metropolis, and the neighbourhood has lately become an important centre of railway communication. For these reasons the demands which are made upon the Hospital have increased very much during the last few years, and have induced the Committee to develop the resources of the Institution. The new building which has just been erected will not only add to the in-door accommodation, but will also give greater facilities for carrying on the out-patient departments. In order still further to meet the wants of the sick poor of the neighbourhood, special arrangements have recently been made for the treatment of diseases of the eye and of the diseases peculiar to women.

PSYCHOLOGICAL MEDICINE AND COUNTY LUNATIC ASYLUMS.

THERE is, we are gratified to believe, a continually enlarging prospect of the labours of psychological physicians receiving a more general attention in the profession, and imparting to psychological science a decided impulse corresponding with the confirmation of the bases, and increase of the accuracy of our knowledge in other departments of medical practice. In several articles of late years, and notably in the last year, we have endeavoured to strengthen the interest of the profession at large in the research into the philosophy and therapeutics of mental disease, and to extend their sympathy for those engaged in the application of these labours. We grieve to find that in one article referring to shortcomings in some directions affecting large public interests, some expressions have been thought to have a wider application than they were intended to have by their author—an accomplished physician experienced in the superintendence of public asylums, and devoted to medicine in the specialty of an alienist—or than they appeared to us to have as we passed them for publication. In continuing and developing the discussion of questions connected with the progress of psychological medicine and the management of county asylums—one of great professional, humanitarian, and scientific interest—we shall have in view those interests only. The analysis of these questions will be intrusted to the hands of writers eminent and respected amongst psychological physicians, and having no “peculiar” views or personal aims. It is, we hope, almost needless to say that we shall welcome the great

discussion and debate on the subjects treated, amongst which the management of county lunatic asylums will be prominent. Under this head it will be endeavoured to show where such evils as exist have originated, and how they may best be dealt with. Our psychological record will be carefully prepared, and will, we hope, be useful for purposes of reference.

MR. GÖSCHEN AT THE POOR-LAW BOARD.

It is a source of satisfaction that the changes in the Ministry leave Mr. Göschen still at the head of the Poor-law Board, instead of removing him to the Board of Trade. Mr. Göschen has brought to his office not only a high order of ability, but an earnest spirit and real interest in his work. He has already done much to diminish pauperism and improve the condition of the sick poor. In the great changes and extensive reorganisation of this department which we believe to be impending, it will be of great advantage to have so able and reliable a Minister at the helm. The home questions of sickness and pauperism are of paramount importance to the nation; and we are well pleased that they should be recognised as important enough to satisfy the ablest member of the Cabinet. Mr. Göschen at the Poor-law Board is, we are disposed to think, the right man in the right place.

THE COMPARATIVE ENERGY OF ANTISEPTICS.

MR. JOHN GAMGEE writes:—"Dr. Crace Calvert's experiments only prove that any antiseptic such as chloralum must be used in such a way as to produce its effects, otherwise they are valueless. Chloralum is not volatile, and it is therefore futile to suspend a piece of meat over it in a wide-mouthed bottle. Meat and fish have been preserved for weeks and months with a solution so weak as 1 part to 140 of water. Carbolic acid is not applicable to one tithe the purposes for which an odourless and harmless disinfectant like the chloride of aluminium can be applied." Mr. Gamgee has had cotton-wool dressed with it by the London Cotton Mills Company for surgical purposes, and has succeeded in obtaining a disinfecting powder containing 30 per cent. of the chlorine, which can be used in a drawing-room if necessary, and is a very active deodoriser.

HEALTH OF PARIS.

In their recent proclamation to the people of Paris, the French Government say:—"At the present time, the cold is our cruellest enemy"; and that "The extraordinary and lasting severity of this winter season has caused us great suffering for the last eight days." Reading these statements by the light of the knowledge that we have as to the statistics of mortality in the doomed city just prior to the setting in of the severe weather, we cannot but await with intensely painful interest the account which shall next reach us of the death-toll during this terribly inclement period. In the week ending 17th December, the deaths amounted to the enormous number of 2,728, which, taking the present population of the city at two millions, is equivalent to an annual death-ratio of 72 per 1,000! The *Electeur Libre* quotes the present population at 2,300,000; but this, we think, is an exaggeration, inasmuch as the official estimate based on the last census, only gives 1,900,000. We believe 2 million^s is a fair approximation, all things considered. In the same week (ending 17th December), the mortality in London was much above the average, but the annual death-ratio was only 28 per 1,000. If the analysis of that week's mortality in Paris, as published in the *Electeur Libre*, is authentic, the small-pox epidemic had greatly abated; for, whereas the *Daily News* correspondent within the walls quoted the deaths from small-pox at 419 in the week ending 19th November, the number of fatal cases is said to have been only 91 in the week ending 17th December. The *Electeur Libre* seeks "to mitigate the impression produced by these melancholy statistics," by reminding its readers "that we are at the worst period of the year as to climatal influences", and that "the recent variations, of temperature, the sudden transition from moisture to cold, and from dry cold to lukewarm and rainy weather, have had a pernicious influence on the public health." We fail to see anything very reassuring in this when we reflect that in place

of such fluctuation, which at any rate afforded some slight relief from the cold, there has since been a lengthened interval of terribly persistent inclemency, from the effects of which the Government has been powerless to find adequate protection for the poorer inhabitants. The latest correspondence of the *Daily News* states that "typhoid fever is on the increase, especially among the families from the suburbs, who are huddled together in close rooms amid a stifling atmosphere that breeds pestilence." Truly one cannot but be otherwise than deeply moved with pity at the thought of the suffering and misery which envelopes the once beautiful city of Paris on this advent of the year of grace 1871.

ICE-ACCIDENTS AND THE ROYAL HUMANE SOCIETY.

THE continued severe frost, and the good skating condition of the ponds in and around London, during the past fortnight, have resulted, as was to be expected, in a large number of accidents, mostly slight, but in not a few instances severe. The number of cases of street-injuries brought to the various hospitals has been very large; and we may be able by next week to collect some data as to the approximate number. If this can be done, it will afford some interesting evidence as to the state of the streets, and may lead to more energetic means being adopted by our local authorities in enforcing the Street Acts more stringently. We have been enabled, by the courtesy of Mr. Young, the Secretary of the Royal Humane Society, to present what we believe to be a pretty close approximation of the number of ice-accidents occurring in Hyde, Regent's, St. James's, and Finsbury Parks, and the ponds at the Crystal Palace. During the twelve days, from December 24th to January 4th, when the ice was bearing, the total number of skaters and sliders was calculated to have been about 712,000, as many as 54,000 being present in Hyde Park alone on January 1st. During that time, the following accidents were attended to by the servants of the Society: immersions 66, incised and contused wounds 271, fractures 10; making a total of 347. Not a single death has occurred. Several of the cases were severe, including several cases of concussion. A few accidents were attended to at neighbouring hospitals, but by far the greater number were treated by the Royal Humane Society. And here we may be allowed to say a word on behalf of the funds of this excellent institution. During the whole time of the frost, the Society has employed about thirty-five men daily at the various London parks. They have furnished every necessary for the relief of persons immersed or injured, and thus incurred an expense of, we understand, nearly £300; and what has the public, who have taken advantage of this, contributed towards defraying the expenditure? the munificent sum of £1 : 14 : 6! Were it not for its income from invested property, the Society would, of course, have immediately to suspend its various operations throughout the country. As it is they are, we think, shamefully curtailed.

COMING DEBATES.

THE Metropolitan Counties Branch is likely, we hear, to have some interesting subjects of discussion brought forward at its meetings this year. Mr. Fairlie Clarke will open the session with a well considered paper on the Medical Aspects of Poor-law Relief, and the Limitations of Free Hospital Aid to the Population. It is a subject which he has carefully mastered; and the presence of some public men, in and out of our profession, specially likely to eluce practical results from the paper and debate, will add importance to the occasion. Members of other Branches and Societies, and members of Parliament interested in the question, will, we believe, attend. Dr. Sibson will, we expect, at a subsequent meeting, open a discussion on a subject of high professional interest, dealing with Hospital Dietetics. On this matter, his long connexion with a metropolitan hospital, in which he has given especial attention to it, affords him grounds for a valuable statement, strengthened by his known acquirements as a physician and physiologist. We have already referred to Dr. Seaton's proposed paper on Small-pox and Vaccination, which speaks for itself. His knowledge of all the

aspects of the question is unrivalled, and his results and opinions will here be ventilated under circumstances peculiarly favourable to enlightened criticism and debate. The number of important Medical Societies in the metropolis draw off purely scientific papers, and disable this Branch from competing in this respect with the brilliantly successful periodical scientific meetings of several of our great provincial Branches. For the discussion of questions in State Medicine, for which there is no other adequate provision in the metropolis, it has some peculiar advantages; and in one of its Secretaries, Dr. A. P. Stewart, it has the advantage of possessing an officer who has an unsurpassed acquaintance with the principles and facts of public medicine and sanitary legislation, and who has devoted years of skilled labour to the advancement of this cause, in a spirit of pure self-devotion and generous patriotism.

ST. GEORGE'S HOSPITAL.

IN consequence of the occurrence of several cases of small-pox in the wards of the hospital, the Weekly Board have decided for the present not to admit visitors to the wards, except in grave cases, when the friends will be admitted on special order. The Morley Convalescent Hospital at Wimbledon has been closed, for a similar reason, for one month.

CHARING CROSS HOSPITAL.

WE hear that Dr. Douglas Powell, Dr. Thorowgood, Dr. J. Thompson Dickson, and Dr. Franklin Gould, are candidates for the vacant appointment of Assistant-Physician, and Mr. Fairlie Clarke, Mr. Spencer Watson, and Mr. Thomas Bond, for that of Assistant-Surgeon, to Charing Cross Hospital. The new wing of the hospital will be ready for occupation in about a fortnight.

CLINICAL SOCIETY OF LONDON.

THE annual meeting for the election of the officers and other members of the Council will be held at the rooms of the Medical and Chirurgical Society, on Friday, Jan. 13. The following officers and Council have been proposed for election for the year. The gentlemen whose names are marked (*) did not hold the same office during the preceding year. *President:* *W. W. Gull, M.D., F.R.S. *Vice-Presidents:* T. King Chambers, M.D.; T. B. Peacock, M.D.; *G. Owen Rees, M.D., F.R.S.; J. Burdon Sanderson, M.D., F.R.S.; John E. Erichsen, Esq.; Prescott G. Hewett, Esq.; Henry Lee, Esq.; *Campbell De Morgan, Esq., F.R.S. *Treasurer:* E. Headlam Greenhow, M.D., F.R.S. *Council:* A. W. Barclay, M.D.; *W. H. Broadbent, M.D.; *Wm. Cholmeley, M.D.; J. Langdon H. Down, M.D.; *C. Handfield Jones, M.D.; F.R.S.; *Alfred Meadows, M.D.; F. W. Pavy, M.D., F.R.S.; *Sidney Ringer, M.D.; Hermann Weber, M.D.; *Samuel Wilks, M.D., F.R.S.; *G. W. Callender, Esq.; John Croft, Esq.; G. G. Gascoven, Esq.; Christopher Heath, Esq.; Berkeley Hill, Esq.; Carsten Holt-house, Esq.; W. B. Kesteven, Esq.; C. F. Maunder, Esq.; *S. W. Sibley, Esq.; Thomas Smith, Esq. *Honorary Secretaries:* Thomas Buzzard, M.D.; *George Lawson, Esq.

WORKING MEN AND PUBLIC HOSPITALS.

AT an influential meeting held this week, it was resolved to make a general collection in support of the working men's fund for the extension of the Queen's Hospital, Birmingham, in all the factories and workshops of the town, on the last Friday and Saturday in March. Mr. Dixon, M.P., Mr. George Dawson, Mr. Sampson Gamgee (Chairman of the Working Men's Extension Committee), Dr. Heslop, and others, attended. The example of Glasgow, where so large a sum is raised by the working classes towards the support of the hospital by which they benefit, shows how much may be expected from judicious efforts, such as are now being made in Birmingham, towards establishing a truer and more honourable relation between public hospitals and the working classes. The working men of Birmingham are doing themselves honour by entering warmly into the scheme. We commend the subject to the attention of hospital-managers generally.

SMALL-POX AND VACCINATION.

DR. SEATON, President of the Epidemiological Society, whose great authority on the subject of small-pox and vaccination has been secured by long and important services to the State, will read a paper on small-pox and vaccination early in the year at a meeting of the Metropolitan Counties Branch of the British Medical Association.

DRUGS FOR WORKHOUSES.

As illustrating the necessity of the examination of drugs supplied to workhouse dispensaries, Dr. Leeper of Keady states that he has been supplied with train-oil for cod-liver oil; opium so impure as to be almost useless; muriated tincture of iron unfit for use; spirits of wine, which should be 56 over proof, not quite 10 over proof; tinctures which mouldered; and ointments unfit for use. There is at present no inspection in England, any more than in Ireland; and it will be eminently necessary to provide it in the new metropolitan dispensaries. We suggest this subject to the attention of the Poor-law Board.

OUR ANNUAL MUSEUM, 1871.

WE heartily commend to the attention of our readers the communication of Mr. Greenway as to proposed additions to the scheme of our Annual Museum at the Plymouth meeting. In addition to pathological specimens, casts, drawings, new medicines, and new books, deposited for examination by the members and description in the JOURNAL, it is proposed to make special collection of surgical instruments and appliances which are either novel or interesting. Many such are novel to the great majority which are known to the few; and their interest may be either of rarity, or antiquity, or special application, as well as of absolute newness. Mr. Greenway is well known in the profession as having for many years devoted great attention to surgical appliances, and for his excellent inventions of an improved limb-suspender, which plays an important part in many hospitals in the treatment of severe fractures and inflamed joints; his unilateral bed-guard, which removes the weight of the bed-covering; and his irrigator, lately described and figured in the JOURNAL from one which has been found useful in the practice of Mr. Walton at St. Mary's Hospital. He will feel great interest in taking charge of objects forwarded to his care at Plymouth for the Museum; and the opportunity is a very favourable one to inventors, surgeons, and obstetricians for bringing together a highly interesting collection. We may suggest that possibly some of those who exhibit may subsequently desire to add their objects and photographs for permanent display in the surgical instrument collection which, at the instance of Sir William Fergusson, it is proposed to make at the College of Surgeons, London. We should be pleased to find our Annual Museum helping to swell the means for the permanent instruction of the profession in this way.

THE GEOGRAPHY OF DISEASE.

THE following extract from the preface of Mr. Haviland's forthcoming great work on the *Geography of Disease* will well explain the scope of the whole inquiry to which he has devoted so much skill and labour, and will serve as a comment on his lectures on parts of this subject which are now in course of publication in our pages. These labours will undoubtedly render assistance to the profession in a part of practice our knowledge of which has always been more or less imperfect; and we join with him in the hope that their publication here and in the more complete and splendidly illustrated form in which they are about to be issued by our chief cartographers, will stimulate others to collect facts relative to the localisation of disease, and record them so that in time to come the practical fruit, borne by the study of the geography of disease, shall enable it to take its proper position in medical science. We believe that Mr. Haviland's labours will be appreciated by the profession and the public in other countries as well as our own—for whose benefit it is specially designed—and we trust his example will be imitated throughout Europe. He writes:

"It is a remarkable fact that Dr. Farr, in his very first letter to the Registrar-General in 1839, when the Act for registering births, deaths,

and marriages, in England came into operation, made the following statement. 'The registration of the diseases of the several districts will furnish medical men with a series of valuable remedial agents. It will designate the localities where disease is most rife, and where there is the most tendency to particular classes of sickness and infirmity. In recommending a residence to patients, the physician will find the registered causes of death an indispensable directory; and the utility of a sanitary map of the country, such as the returns will furnish, cannot fail to be felt in England, where a part of the population is constantly migrating from place to place in search of health. Much information has been collected respecting the influence of the British climate; but the facts will bring to light many salubrious spots hitherto unknown, and disclose the dangers which infest others unsuspected. Invalids resort to some unhealthy places; families carrying their children in autumn, when small-pox and measles are often epidemical, or go into parts of the country where bowel-complaints and fevers are extraordinary fatal.' After completing the map on heart-disease, I was gratified to find that this prophetic opinion had been expressed by Dr. Farr; and I was stimulated to extend my inquiries not only by what he wrote so many years before there were any data whereon to form such a map, but by his confirmed opinion, when he saw the figures of his office cartographically portrayed."

THE BRITISH MEDICAL ASSOCIATION AND THE MEDICAL BILL.

ON December 27th, a meeting of the Reform Committee of the British Medical Association appointed at the general meeting in Newcastle was held in Birmingham. There were present Dr. Charlton (Newcastle), Dr. Chadwick (Leeds), Dr. Waters (Chester), Dr. Sibson (London), Dr. A. P. Stewart (London), Mr. Southam (Manchester), Mr. Heck-stall Smith (London), Mr. W. H. Michael (Barrister, London), and the General Secretary. Dr. Waters was appointed Chairman. It was resolved to draft a Bill based on the Government Bill of last session, and embodying the principles contended for by the Association; *i.e.*, one portal; compulsory registration; improved examinations; the annulling of honorary degrees; an effective penal clause; and direct representation of the profession to the extent of one-fourth of the Council. A Subcommittee was appointed for this purpose, consisting of Dr. Waters, Dr. Chadwick, Dr. Stewart, and Mr. Michael, with power to act. It is intended thoroughly to test the opinion of the Government on the clauses of the proposed Bill, and to endeavour in the first instance to obtain, if possible, the adoption of the proposed modification of the Government.

SCOTLAND.

A GREAT OVARIOTOMIST.

DR. THOMAS KEITH of Edinburgh has performed ovariectomy with an amount of success which has barely been approached, and has certainly never been surpassed. Some time ago he completed his hundredth operation, and among these hundred cases the mortality has been nineteen. This success has contributed largely to establish ovariectomy as a valuable operation, and has attracted to Dr. Keith and to Edinburgh the admiration of surgeons in every part of the world. Congratulating Dr. Keith on this unequalled success, and holding him in high esteem for his many excellent qualities, his professional brethren and friends wish to give him a tangible expression of their feelings. It is, we learn, proposed to present to Mrs. Keith a portrait of her husband, together with a service of plate. A committee has been formed for carrying out this object, composed of Professor Christison; Dr. Matthews Duncan; Professor Lister; Dr. Carruthers, Cramond; Dr. Warburton Begbie; Professor Turner; Dr. Joseph Bell; Professor Sanders; Dr. Matthews Duncan, Treasurer; Dr. Arthur Gamgee, Secretary. The movement is a private one; but, inasmuch as it relates to public achievements of no mean importance, it is not inappropriate to notice it here, where the notice may give information to some who would desire to join in the work of the Committee.

FEMALE EDUCATION IN MEDICINE IN EDINBURGH.

OUR Edinburgh correspondent writes:—To-day (January 2) the annual meeting of contributors to the Royal Infirmary was held as usual. It

generally passes off in a very quiet and humdrum manner; but to-day an element of excitement was introduced by an attempt, very nearly successful, on the part of the friends of mixed classes to elect a batch of managers who could be trusted to vote for the admission of women into the wards of the Infirmary along with male students of medicine. The Council chambers being far too small to contain the meeting, there was an adjournment to the High Church, in the dark and cold pews of which ancient edifice both sides perseveringly sat for more than three hours. The Lord Provost took the chair, and moved the election of the list of "champions of the women." After several speeches, including a small one from a rather nervous young woman in the elder's seat, Miss Jex Blake herself rose to her feet, and read a lengthened document full of the bitterest and most direct personal attacks on Professors Christison and Laycock and Dr. Andrew Wood. It was, to say the least of it, very indiscreet, was received with marked impatience, and, unless a privilege had been accorded to her sex and to the novelty of her position, would not have been listened to so patiently as it was. Dr. Christison replied briefly, but strongly to the point. A show of hands was then taken, when the sides were so nearly equal that lists were taken, and it was found that the list of managers favourable to the females had ninety-six votes, the other list having one hundred. A scrutiny of the votes as to the eligibility of the voters was then demanded by the losing party. Another motion was immediately brought forward by Professor Charteris, a recent addition to the Faculty of Theology, in favour of the admission of females, but owing to the lateness of the hour, was postponed till Monday, the 16th, when the subject will be again discussed.

THE EDINBURGH UNIVERSITY SCHOOL.

THE traditional reputation of the Edinburgh school is well maintained by the vigour, freshness, and importance of the work achieved there. For many years it has stood unsurpassed, and in some respects unrivalled as a school of practical physiology, as well as in the departments of practical medicine and surgery, in obstetrics, and in psychology. If, in losing the *clara nomina* of Syme, Simpson, and Goodsir, it has suffered a loss which seems irreparable in its magnitude and nearness, it still retains some of its most noted veterans, and boasts some brilliant recruits. Christison, Hughes Bennett, and Laycock, do not rely only on their past achievements, but continually justify the fame which they have won. It is the glory of Edinburgh University that its professors are appointed according to an avowed principle, solely upon the basis of meritorious achievement and pre-eminent skill. The Edinburgh school may, we believe, boast of having trained all four of the leading teachers of practical physiology specially devoted to that subject, who are now occupied in metropolitan schools. Professor Bennett's paper this week is one of the applications to practice of the Researches on Mercury of the Edinburgh Committee, towards which the British Medical Association, at his instance, contributed a grant in aid of expenses. The school of surgery at this moment in Edinburgh seems likely to maintain all the lustre shed upon it in the past, and to gather fresh laurels. We have referred, in another column, to the brilliant achievements of Dr. Keith, and, to mention invidiously other names, we may refer to the doctrines and practice of Professor Lister, as having, perhaps, more than those of any other surgeon, attracted at present the attention of the profession throughout Europe. We regret that the impossibility of finding space, or of curtailing its pregnant sentences, have prevented us from publishing in this issue a paper in hand, from his pen, describing some further researches in the application of the principles of antiseptic surgery, and giving the details of one of those noteworthy cases which leave their mark in practice. We shall publish it next week; and shall further be enabled to publish a series of Clinical Lectures by Professor Lister, at the Infirmary of Edinburgh. Reference to the list of intended contributions from some of the most accomplished teachers and practitioners of Edinburgh and Glasgow will show that these schools are likely to be largely and honourably represented in our pages, in company with their sister schools of Ireland and England.

IRELAND.

IN order to prevent the spread of small-pox in Belfast, the guardians have provided a separate ward for the isolation of paying patients.

THE Report of the Cork Lying-in Hospital just issued shows that, during the past three years, 1,150 cases have been attended without any death. The hospital has been in existence since the year 1798; and we would earnestly commend it to the generous support of the inhabitants, especially of the ladies, of Cork. Its funds deserve a large reinforcement, of which they stand in need.

AMALGAMATION OF THE DUBLIN MEDICAL SOCIETIES.

THE President of the Surgical Society, in his opening address, advocated the union of the various Societies, four of which now meet in different places and at different times.

ROYAL COLLEGE OF SURGEONS.

AT the quarterly examinations to be held this month, the clinical test will not come into operation, the details not having been as yet arranged. The suggestions regarding medical legislation adopted by the conference of medical bodies not having been agreed to, it is said that the College will draw out a Medical Bill, which is thought likely to gain much parliamentary support.

SOUTH DUBLIN UNION.

IT is high time that the Poor-law medical officers of Dublin should take some steps for the formation of an organisation for their own protection, when the following poster has been issued by the Board of Guardians of the South Dublin Union. It can be characterised as little else than a wanton insult to gentlemen who have always performed their arduous duties assiduously and fearlessly, though it appears to a great extent thanklessly. It was unnecessary, because all the information contained in it is printed on the back of each visiting-ticket. It was illegal, because the Committee cannot dismiss a medical officer. It was suggestive, as implying a desire to annoy the medical officers; and the only redeeming quality it possesses is the absence of any signature. Let us hope that shame prevented any member of the Board from attaching his name to such a document. The following is the document referred to.

"The Committee, having learned that it is the practice at the South City Dispensaries to refuse medicine, unless same be applied for at particular hours, have resolved, that this Committee most strongly condemn such practice; and they will visit with dismissal any officer who shall in future refuse medicine or medical advice, on presentation of a red ticket, at any hour of the day or night. All complaints of want of attention, or neglect, to be forwarded to the Committee, at 16, Peter Street."

DINNER GIVEN BY DR. BANKS, PRESIDENT OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

THE President of the King and Queen's College of Physicians in Ireland entertained His Excellency the Lord Lieutenant at dinner on the 20th ult., at his residence, 10, Merrion Square East. The following had the honour of meeting His Excellency: The Right Hon. Lord O'Hagan, Lord Chancellor of Ireland; the Right Hon. Sir William Mansfield, G.C.B., Commander of the Forces in Ireland; the Right Hon. John T. Ball, M.P. for the University of Dublin; the Right Hon. the Master of the Rolls; Sir D. Corrigan, Bart., M.P., Physician in Ordinary to the Queen in Ireland; Dr. Stokes, D.C.L., F.R.S., Physician in Ordinary to the Queen; the Rev. the Provost of Trinity College, D.D.; Dr. Adams, Surgeon in Ordinary to the Queen in Ireland; Dr. Porter, Ex-President of the College of Surgeons, Surgeon in Ordinary to the Queen; the President of the College of Surgeons; Dr. Beatty; Dr. Gordon, Vice-President of the College of Physicians; Dr. James Little, Registrar of the College of Physicians; and others.

ANALYSIS OF THE NUMBERS AND GROWTH OF THE BRITISH MEDICAL ASSOCIATION.

IN the two subjoined tables we submit analyses of the local strength of the Association in the different parts of the United Kingdom, and of its growth in each county of England, and in Wales, Scotland, and Ireland, for each of the five years dating from 1866—the year in which the JOURNAL was moulded into its present form, and from which the Association dates a sudden and continuous increase of numerical strength, amounting to six hundred in 1867, and approaching two thousand in the five years. In these five years it has, in fact, nearly doubled its numbers, and is still in the course of vigorous growth. These analyses will be found, we trust, to be full of valuable and suggestive information; and we venture to commend them to the consideration of the members and honorary officers of the Association.

The first table gives the numbers of the Association for five years. It is taken from the lists published in the JOURNAL.

TABLE I.—*Members of the Association for Five Years.*

	1866.	1867.	1868.	1869.	1870.
Bedfordshire	21	23	27	27	27
Berkshire	22	22	29	31	32
Buckinghamshire ...	24	25	25	21	24
Cambridgeshire.....	32	33	35	38	38
Cheshire.....	71	90	94	101	97
Cornwall	26	24	24	26	37
Cumberland	6	8	59*	68	69
Derbyshire.....	43	46	46	46	47
Devonshire	66	76	75	80	86
Dorsetshire	11	11	12	14	17
Durham.....	52	56	83	104	144†
Essex	18	22	26	30	31
Gloucestershire.....	106	102	117	138‡	144
Hampshire.....	40	48	65	69	73
Herefordshire	11	10	12	12	13
Hertfordshire.....	19	18	16	24	27
Huntingdonshire ...	13	14	14	14	15
Kent	138	139	145	144	153
Lancashire.....	229	246	283	325	329
Leicestershire	34	32	33	37	35
Lincolnshire	47	48	52	62	67
Middlesex	322	418	536	602	614
Monmouthshire.....	7	7	11	14	15
Norfolk	31	29	39	35	32
Northamptonshire ..	41	49	52	48	47
Northumberland ...	24	29	37	48	96†
Nottinghamshire ...	25	27	39	39	41
Oxfordshire	7	9	30	30	29
Rutlandshire	2	2	2	2	4
Shropshire.....	77	77	80	75	81
Somersetshire	101	105	118	124	124
Staffordshire	44	52	81	88	84
Suffolk	50	51	53	61	68
Surrey	82	105	120	134	134
Sussex	59	69	94	91	94
Warwickshire	139	149	168	170	170
Westmorland	1	1	7*	14	13
Wiltshire	20	22	26	30	30
Worcestershire	40	43	51	54	54
Yorkshire	144	161	205	361§	368
Wales.....	94	110	118	132	136
Islands	4	4	4	5	6
Scotland.....	50	55	77	86	102
Ireland	24	386||	376	322	298
Army and Navy ...	—	14	24	40	53
Colonies, etc.	29	46	49	51	53
Total¶ ...	2436	3113	3589	4067	4201

* The Cumberland and Westmorland Branch was formed this year.

† The Annual Meeting of the Association was held this year in Newcastle-on-Tyne.

‡ The Gloucestershire Branch was formed this year.

§ The annual meeting of the Association was this year held in Leeds.

|| The annual meeting of the Association was this year held in Dublin.

¶ The numbers here given do not include subscribers to the JOURNAL who are not members of the Association.

The second table gives the relative percentage of the members of the Association to the whole profession in each county. The data on which the calculations are based have been taken from the *Medical Directory* for 1870, and the list of members published in the *JOURNAL* of Nov. 5th of last year.

TABLE II.—*Percentage Proportion of Members of the Association.*

	Number of members of profes- sion.	Number of members of Asso- ciation.	Percentage of mem- bers of Association.	Branch.
London	3400*	624	18	<i>i</i>
Bedfordshire	74	27	36	<i>q</i>
Berkshire	122	32	25	<i>m</i>
Buckinghamshire	77	24	31	<i>q</i>
Cambridgeshire	105	38	36	<i>c</i>
Cheshire	288	97	33	<i>h</i>
Cornwall	186	37	20	<i>r</i>
Cumberland	109	69	63	<i>d</i>
Derbyshire	164	47	28	<i>j</i>
Devonshire	467	86	18	<i>r</i>
Dorset	114	17	15	None.
Durham	278	144	51	<i>k</i>
Essex	234	31	13	<i>i</i>
Gloucestershire	363	144	39	<i>a g</i>
Hampshire	343	73	21	<i>m †</i>
Herefordshire	81	13	16	<i>g(?)</i>
Hertfordshire	106	27	25	<i>i</i>
Huntingdonshire	28	15	53	<i>c</i>
Kent	539	153	28	<i>p</i>
Lancashire	1101	329	29	<i>h</i>
Leicestershire	121	35	29	<i>j</i>
Lincolnshire	253	67	26	<i>f j</i>
Middlesex (extra-metropolitan) ..	189	28	14	<i>i</i>
Monmouthshire	85	15	17	<i>‡</i>
Norfolk	199	32	16	<i>e</i>
Northamptonshire	113	47	41	<i>q</i>
Northumberland	198	96	48	<i>k</i>
Nottinghamshire	153	41	26	<i>j</i>
Oxfordshire	112	29	26	<i>b q</i>
Rutland	20	4	20	<i>j</i>
Shropshire	142	81	57	<i>n o</i>
Somerset	320	124	39	<i>a s</i>
Staffordshire	269	84	31	<i>b</i>
Suffolk	183	68	37	<i>c</i>
Surrey (extra-metropolitan)	329	96	29	<i>p</i>
Sussex	350	94	27	<i>p</i>
Warwickshire	352	170	48	<i>b</i>
Westmorland	39	13	33	<i>d</i>
Wiltshire	146	30	20	<i>a †</i>
Worcestershire	158	54	34	<i>b</i>
Yorkshire	1082	368	36	<i>t</i>
Wales, North	180	79	44	<i>l</i>
Wales, South	283	57	20	<i>‡</i>
Total, England and Wales	13455	3739	28	
England and Wales, excluding } London	10055	3115	31	
Scotland	2000*	102	5	
Ireland	2400*	298	12	

a, Bath and Bristol Branch; *b*, Birmingham and Midland Counties Branch; *c*, Cambridge and Huntingdon Branch; *d*, Cumberland and Westmorland Branch; *e*, East Anglian Branch; *f*, East York and North Lincoln Branch; *g*, Gloucestershire Branch; *h*, Lancashire and Cheshire Branch; *i*, Metropolitan Counties Branch; *j*, Midland Branch; *k*, Northern Branch; *l*, North Wales Branch; *m*, Reading Branch; *n*, Shropshire Ethical Branch; *o*, Shropshire Scientific Branch; *p*, South-Eastern Branch; *q*, South Midland Branch; *r*, South-Western Branch; *s*, West Somerset Branch; *t*, Yorkshire Branch.

* Approximative calculation.

† In parts. A new Branch contemplated.

‡ Branch about to be formed.

The figures of these tables, especially those of the first, speak volumes for the exertions of the honorary secretaries of Branches and of the honorary secretaries and local committees who have superintended the arrangements of the annual meetings, and to whose exertions are mainly to be attributed the cordial reception of the Association at Chester, Dublin, Oxford, Leeds, and Newcastle. The constant and freely bestowed labours of the Branch secretaries in the cause of the Association are only partly known to the members at large; but it will be sufficiently clear, from the inspection of these figures, that those labours are repaid, for example, in the Birmingham and South-Eastern Branches—where the Branch meetings are most numerous, and the organisation is especially active—by the remarkable and steady growth of the Association in numbers and influence. The great localised accessions of members which marked the meetings in Dublin, Leeds, and Newcastle, corresponds to the generous desire of the profession to welcome the gathering of their brethren, and to the energetic manner in which on each occasion the local committees have brought the objects and advantages of the Association under notice in the adjoining districts, and have set themselves to enrol new members in our ranks. Similar measures are now being organised in the west of England in anticipation of the visit of the Association to Plymouth; and we trust that they will meet with an equally generous and universal response from the profession in those counties.

The northern counties afford a prominent example of the increase of members which follows the effective organisation of new Branches, and the steady and persistent renewal of efforts to make a Branch include in one brotherhood—as it now very nearly does in some of these counties—the mass of the practising members of the profession. The Gloucestershire Branch affords the same lesson on a smaller scale. We trust that the initiative about to be taken by Mr. Andrew Davies in South Wales, and by Mr. W. G. Davis and Mr. Lardner Green in Wiltshire, will be similarly favoured by the union of the profession in those parts of the country.

The table showing the ratio of strength in the various counties and divisions of the kingdom is not less interesting in another way. It shows the reward of the work done in each county, as well as the places where lies the richest harvest for future exertions. Of course, each locality has its own peculiarities; in some districts, the work is favoured by local circumstances, while in others it is impeded; so that it by no means follows that where the percentage is least the work has been smallest. The figures should stand only for their true work; and the local officers and secretaries best know the qualifications which affect their significance. Taken, however, with their just qualifications, and interpreted by those best able to do so, they will, we hope, be found interesting and suggestive.

It is satisfactory to notice how permanent a character is impressed on each large increase of members following local efforts and the annual meetings. The above tables afford, we believe, reason to attribute this, in some notable instances, to the usefulness of the *JOURNAL*. At Dublin, we were told that it could not be expected that the large accession of members moved by a generous impulse to join our brotherhood for the year of reception would outlast that year. In Ireland, no branch organisation has been formed. Nevertheless, the weekly *JOURNAL* has sufficed to maintain and favour the close bonds of fraternal union then happily knit with our Irish brethren; and, while many of the members of the profession in Ireland—and we wish they were more—have been honoured guests at successive annual meetings, the great majority of those who joined in 1867 have continued to maintain with us, through the *JOURNAL*, a close scientific and professional communion. Again, in Middlesex, the members have risen from 332 to 614. In view of discussions which have occasionally taken place, these facts are not without importance.

Without dwelling further on these figures, we leave them for consideration; feeling sure that we need only ask for the co-operation of our members in aid of the extension of the Association, till it includes within its benefits the whole profession, and venturing to remind our associates that they should not rely too exclusively on the generous labour of their honorary officers, but that the great voluntary union and general elevation of the profession, which the Association contemplates and is in course of effecting, will be most largely aided and rapidly completed if each member exert himself to bring its organisation under the notice of his professional friends, and introduce them as members. For this purpose, forms are always obtainable from the local secretaries, from the General Secretary, or from this office.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION OF ENGLAND:—POOR-LAW MEDICAL REFORM.

WE are requested to publish the following official circular.

The Council beg to remind the Members of the Association and all Poor-law medical officers, that Dr. Brady, M.P., will, in the next session of Parliament, introduce a Bill having for its object a very considerable reform in the administration of Poor-law medical relief, and one largely affecting the status of Poor-law medical officers.

It is most desirable that the hands of Dr. Brady should be strengthened to the utmost, and he has pointed out, through the medical journals, the most effectual way of assisting him, viz., by furnishing him with information that will enable him to prove how largely our huge expenditure on the poor is traceable to that short-sighted policy of Poor-law medical administration which has failed to provide efficient means for the treatment and prevention of disease amongst the poor.

One of the chief factors of pauperism is sickness: this has not been sufficiently recognised. Instances in which unchecked sickness and preventable disease or deaths have sent families to the workhouse, or caused them to become chargeable to the rates, supply facts that deserve to be recorded, and medical officers by furnishing such examples, will aid very materially in obtaining a just measure of Poor-law medical reform. In the report of the general meeting will be found extracts from some of the letters already received. It is most desirable that they should be largely added to: the Council undertake that the names and addresses of correspondents will in no instance be revealed unless distinct permission be given.

The Council further beg to inform the Members of the Association that they have, in conjunction with the Irish Poor-law Medical Officers' Association, secured the warm support and influence of the BRITISH MEDICAL JOURNAL, and that a considerable space in that widely-circulated journal will be devoted to further the interests of the Poor-law medical service.

A considerable number of the Poor-law medical officers already belong to the British Medical Association; and it is suggested that the interests of the Poor-law medical service might be further advanced by all the Poor-law medical officers joining the British Medical Association, and enlisting its social, political, and professional influence by bringing questions of Poor-law administration before the several County Branches at their numerous periodical meetings for discussion, and forwarding reports for insertion in the JOURNAL.

The Council earnestly impress upon the county members the importance of placing themselves in communication with their respective parliamentary representatives, in order that they may bring under their immediate notice the objects of the Association, and thus obtain their sympathy and support in the House of Commons.

It is important that the valuable facts and deductions which are contained in the reports of the Association should receive the widest publicity; this may be largely aided by having extracts inserted in the local journals, or by forwarding the reports when read to the editors of local journals, and calling their attention to passages of local importance.

The Council feel that the Poor-law medical officers are capable of rendering the highest service to the commonwealth. Their claims have hitherto been insufficiently recognised, but by pointed and well-directed efforts it is in their power to secure a high and proud position in the estimation of the public. The work of the Poor-law medical officers is honest and catholic, in a word national; by curing sickness and preventing disease they secure the wealth and strength of the country. Disease and poverty are so intimately connected that few can now fail to recognise their inter-relationship as cause and effect. Surely our legislators cannot much longer fail to give to the health-officers of the nation that position and remuneration which the fruits of their labours so richly entitle them to receive.

The Council trust that medical officers will kindly forward to Mr. Benson Baker, Corresponding Secretary, 42, Grove Road, St. John's Wood, London, cuttings from local journals, reports of Boards of Guardians, personal grievances, changes in appointments, vacancies, superannuations, obituary notices of colleagues, and notices of any parochial questions bearing on the medical service. Members will see the importance of having the above information published weekly.

POOR-LAW MEDICAL RELIEF.

SIR,—I perceive that the Edinburgh Association for improving the condition of the poor, in their last report, dated December 1870, draw attention to the imperfection of Poor-law medical relief in that city, and state "that nothing would tend to keep down a poor-rate more than speedy restoration to health from sickness, and the prevention of premature death." They also express their satisfaction "at hearing that the whole subject is now being investigated by the Royal Colleges of Physicians and Surgeons, and they trust that some improved system will be the result of their deliberation." I much fear that, if their action be limited to the Scotch metropolis, only very trifling results will be achieved.

That medical relief to the poor in Scotland is most defective will be demonstrated when I state that £32,858 only is expended on the stipends, etc., of the parochial surgeons, from which they have to find all medicines and appliances for the sick poor of a population of 3,158,125, against £131,000 expended on the same service in Ireland for a population of 5,543,285. That it is false economy, is shown by the fact that by the last return of the Scotch Poor-law Board (that of 1868), the aggregate amount of poor-rate, inclusive of medical relief, was £863,202, or 5s. 7½d. per head of population, against £829,521, or 2s. 11¼d. per head (the cost of medical relief being included) for the sick poor of Ireland; that is to say, in round numbers, the poor of Scotland cost nearly twice as much to maintain as those of Ireland.

That the insufficiency of the stipends, and the generally imperfect character of the service, have attracted the attention of other than merely professional observers, is shown by the fact that at the annual dinner of the Poor-law Medical Officers' Association last July, the Honourable E. S. Gordon, in returning thanks for the House of Commons, said "that he was a member of that body in Scotland which was analogous with the Poor-law Board of England, and he was ashamed to see the miserable stipends paid to men of that profession in return for important services. It was impossible for that Board to pay more; but he believed that attention was being directed to the condition of medical men, and he trusted that remedies would be found for the existing evil."

In point of fact, the Scotch Poor-law medical service labours under exactly the same disadvantages (except that they are a shade more aggravated) that the English service does, and which the Poor-law Medical Officers' Association was originated to remove. Hitherto, as you know, our labours have been attended with the most gratifying results; and we have good reason to believe that, before a great while, most of the grievances of which we justly complain will be largely diminished, or altogether removed.

Now, I would counsel our Scotch brethren to form an Association having similar objects. Surely it is a desirable movement, when it can be shown that an improvement in the status and remuneration of the service would lead to a diminution of suffering amongst the poor, and a curtailment of the excessive expenditure on poor relief. There can be no doubt that an Association, framed on the same principles as ours, would not only effect much local good, but would also be able to render very effective assistance to us, and for this reason: the English Member of Parliament is oftentimes deterred from taking action in our favour, from fear lest he might excite an adverse political influence in the Board of Guardians of the borough or county which he represents. Such a dread of consequences would not affect the member for a Scotch constituency; and, therefore, if locally solicited, he could safely support us. That this view is correct, was shown by the fact that, in the debate on the "Superannuation Bill" several Irish members took a prominent part, to which action they were stimulated by certain dispensary physicians in Ireland, in return for similar good offices from us, when their Bill was under *parliamentary* consideration. Since then, an association of Irish medical officers has been formed, whose members are distributed pretty equally all over this island. With that association we have proposed to establish an *entente cordiale*, with the view to an effective interchange of parliamentary action for the redress of each other's grievances. Now, could we get our Scotch brethren to do the same, we could work the House of Commons in such a way that, though we might accept the aid of the Corporations, we should soon be able to do without them.

In conclusion, allow me to state that, if my suggestion should lead to action, I should be most happy to aid such a movement in every way in my power; and if it be doomed to meet with no collective response, then, seeing that we still have certain common objects, that the Association over which I have the honour to preside will welcome all such Scotch Poor-law medical officers as may be disposed to join us.

I am, etc., JOSEPH ROGERS,

President of the Poor-law Medical Officers' Association of England.
Dean Street, Soho, January 3rd, 1870.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

A MEETING was held in the Rotundo, Dublin, on Dec. 24th, to present Dr. D. T. T. Maunsell with a testimonial in appreciation of his services in the cause of the Poor-law medical officers of Ireland; Dr. OSBREY in the chair. The Chairman having explained the objects of the meeting, Dr. Shortt read the following address:—

"DEAR SIR,—We, on behalf of the medical men of the North and South Dublin Unions, beg leave to present you with this purse, containing fifty sovereigns, to mark the sense of their obligations to you for your great and successful exertions on behalf of the medical men connected with the various unions and dispensaries in Ireland, and at the same time to express their confidence in you for your untiring toil and zealous exertions for the advancement of the interests of the medical officers attached to that service.

J. SHORTT.

A. O. S. SPEEDY.

HENRY J. COULTON, Treasurer."

Dr. Speedy read a letter from Dr. Rogers, President of the English Poor-law Medical Officers' Association, regretting that he was unable to be present, and expressing his sense of obligation to Dr. Maunsell for his assistance in the cause of the Poor-law medical officers of England, adding that "in my efforts to call attention to the wrong doings of our system of Poor-law medical relief, there is not one from whom I have received such valuable information and assistance as from that gentleman."

Dr. Maunsell briefly returned thanks, and explained that an erroneous impression had arisen in some quarters that the formation of the Poor-law Medical Officers' Association in Ireland, with which he was connected, was antagonistic to some of the existing associations. He was extremely anxious to correct this idea, and perhaps the following extract from a contemporary medical journal would have more effect than anything that he could say:—

"The best answer to this resolution (a resolution of the Council of the Irish Medical Association with reference to the new society) is, that twice as many dispensary medical officers have already joined the new association as the older institution can itself number. There is obviously room for both associations. The British Medical Association might as well complain of the existence of the English Poor-law Medical Officers' Association on the same grounds. The fact is, the Poor-law medical officers of England have experienced the great advantage of union for the purpose of advancing their peculiar interests. No one knows where the shoe pinches so well as the wearer; and if the dispensary medical officers of Ireland wish to have their grievances remedied they cannot do better than imitate the action of their English brethren, and unite to support an association for the advancement of their special interests."

In alluding to the Poor-law Medical Officers' Association of Ireland, he had great pleasure in stating that they had secured a powerful ally in the journal which is already the official organ of the most powerful and numerous professional organisation in the three kingdoms. The BRITISH MEDICAL JOURNAL had undertaken to place at their disposal a considerable portion of its space weekly for the dissemination of the facts, views, opinions, and correspondence issuing from the Poor-law Medical Officers' Association relating to their interests and likely to further their views. By using this privilege thus fraternally accorded to them, their efforts would be backed by the important aid which the largest medical circulation can give them. Moreover, they would be working in union with an association numbering over four thousand members, and which had a political organisation of an effective character in every county in England, and had a most influential body of adherents in Ireland. This close contact would assuredly cause sympathy; and he had ample assurances that the British Medical Association, far from feeling any jealousy of the Irish organisation, would always be prepared to give it, as to all other medical associations of a like character, cordial and ungrudging aid. There would be times and circumstances in their future career in which such political assistance would be of great value. They might expect that the communications to that journal would give some useful hints to their English brethren, and perhaps those of the English Poor-law medical officers in its pages might give those in Ireland some as well. It must be remembered that the Poor-law medical officers comprised half the medical men in Ireland, and they were in nearly the same proportion in England and Wales. It was a prosaic consideration, but one which they could not leave out of their calculation, that the BRITISH MEDICAL JOURNAL was the least expensive of the first class medical papers, costing but 21s. a year. It

was hardly necessary for him to say that, without the assistance of the press, in these days it was impossible to succeed; and, as they could not afford to be extravagant, it would be of the utmost importance that their proceedings, notices, etc., should be given and forwarded to their members in the most economical manner. He (Dr. Maunsell) therefore congratulated the Poor-law Medical Officers' Association on this arrangement, which secured for them at once a powerful platform—the widest and most influential circulation of their views in a quarter where they will influence lay as well as medical opinion, as he trusted they would soon find, and would bring them into perfect intercommunication with the most powerful medical organisation in the three kingdoms—namely, the British Medical Association—as well as with the Poor-law Medical Officers' Association of England. In conclusion, he had the pleasure of communicating to them that the formation of the Irish Poor-law Medical Officers' Association was now an established fact in almost every union and county in Ireland, and that the proposed programme would be submitted for their approval at an early date.

Alderman Ryan, M.D., having been asked to take the second chair, spoke in flattering terms of his colleague, Dr. Maunsell; and thanks having been returned to Dr. Osbrey, the meeting broke up.

THE IRISH POOR LAW MEDICAL OFFICERS' ASSOCIATION.

THE Association is steadily and surely taking root in the unions and counties of Ireland, and promises to rapidly prove its importance and usefulness to the Poor-law and dispensary medical officers. The Irish medical officers are quick to learn the lesson taught by the experience of the English Association, that the Poor-law medical officers can best look after their own interests, and that their numbers and importance more than justify them in forming an association having that sole object, without being fairly open to the charge of injuring the interests of any one else. The Council wish that a general meeting of the Association should be held at an early date for the election of the general president. The medical officers of those unions and counties which have not already sent in the names of their representative are begged to kindly send them to Dr. Maunsell, 1, Harrington Terrace, Dublin, without delay. The subscriptions for the year 1871 should be sent to Dr. Speedy, 28, North Frederick Street.

At a meeting of the Dublin Branch of the Poor-law Medical Association, the following resolution was passed.

Proposed by Dr. MOORE, seconded by Dr. SPEEDY, "That the Irish Poor-law medical officers consider they have the strongest claim to be appointed to the contemplated offices in preventive medicine, inasmuch as they have at all times discharged the duties of such office with eminently beneficial results, as seen in the comparative total average mortality, which is in England, 1 in 43; in Scotland, 1 in 44; and in Ireland, 1 in 60; and in the advantageous contrast of poor-rate expenditure, which is in England and Wales, 6s. 11½d.; Scotland, 5s. 7½d.; and in Ireland, 2s. 11¾d. Moreover, their position as sanitary medical officers has been fully recognised by the State in the Sanitary Act of 1866."

THE following letter from the English Poor-law Medical Officers' Association speaks for itself:—

"126, Gower Street, Bedford Square, Dec. 21, 1870.

DEAR SIR,—I am directed by the Council to acknowledge the receipt of your communication concerning the formation of our sister association in Ireland. The Council most warmly congratulate you on the great success already attending your efforts, and beg to inform you that, they will be most happy, at all times, to co-operate with your Association, and work hand-in-hand with you in furtherance of the common good.—I am, dear Sir, yours truly,

"J. WICKHAM BARNES,

"D. Toler T. Maunsell, Esq., General Secretary."

APOTHECARY GENERAL OF IRELAND.

THIS appointment will, we understand, take place immediately after the second meeting of the various Boards of Guardians of Ireland in the present year. We have already expressed our opinion that inspection would have been the better course to adopt. These views have been

borne out by the press, the guardians, and the medical men of Ireland, and we have good reasons for believing that the commissioners themselves are now of the same belief. The number of candidates in the field at present is very numerous; it would be invidious to mention names, but we trust that, as the first step towards the principle of promotion in their ranks, the Poor-law medical officers will endeavour to secure the appointment for a member of their own body. Several able and very efficient men as well calculated to hold that appointment as any are forthcoming, and, although not altogether approving of the nature of the appointment, which we think might have been subdivided after a plan to which we have already referred, we wish them success. We shall have the greater confidence in the appointment, and the greater faith in its working for good, if it be the means of offering a prospect of some reward and promotion to the members of the Poor-law medical service, with which it is connected.

SMALL-POX IN BELFAST: ITS MORAL.

IN our last issue we had occasion to call attention to the official notification of the Poor-law Commissioners concerning the outbreak of this disease in Belfast. This circular assigned their due part in the causation of this local epidemic to importations, and the neglect of the guardians to carry out the compulsory vaccination act with vigour. We have every week occasion to deplore in England the mortality which arises from similar neglect of the law. There is another element in the costly and unnecessary expenditure of health, life (and money), attendant upon this small-pox epidemic. We submit to the consideration of the Belfast guardians, and of the Poor-law Commissioners, the fact that the Poor-law medical officers of Belfast are the worst paid of these hardly-worked and underpaid gentlemen throughout Ireland. They receive but £75 a-year each. There is always imported disease in that city, and this to a very great extent. It is also the manufacturing centre of Ireland: hence accidents cause continual trouble, and make drafts upon their time and trouble. Before they pass any censure on the Poor-law medical officers of Belfast, we would suggest to the inhabitants, guardians, and commissioners, and to our influential brethren of the press, that it would be well to consider whether it will not be just and judicious to try the stimulus of a more adequate remuneration. Why should not these gentlemen receive £125 a-year, as they do in Dublin? Cannot this great and thriving city afford this small primary outlay? In the end it would be remunerative in life and expenditure on rates, the whole experience of Ireland for some years has conclusively proved that the more efficient the application of the system of public and preventive medicine administered by the Poor-law medical officers, the less the preventable and disabling sickness of the population, the less the total outlay of pauper-relief, and the lower the rates. It is only by a just and adequate relation of remuneration given to work exacted and expected from the Poor-law medical officers, that the fullest efficiency can be achieved in the Poor-law medical system, and the greatest relief experienced in the vital and pecuniary burdens of each district or town, and of the country at large.

CORRESPONDENCE.

THE ANNUAL MUSEUM, 1871.

SIR,—The local "Reception-Committee" of the British Medical Association for 1871 having done me the honour to appoint me Manager of the Medical and Surgical Appliance Department of the Annual Museum, I am desirous of introducing a new feature by exhibiting (in addition to the usual collection) diagrams and instruments setting forth the history, from the earliest records down to the present time, of appliances used in a *special* branch of surgery, namely, *in the treatment of fractures*. Such an exhibition would, I believe, prove useful and interesting, and it might also save some future inventor the trouble of working on "trodden ground". I trust, therefore, the profession will kindly aid me in this matter by sending diagrams or instruments, with *short* descriptions appended.

In conclusion, I would venture to suggest the advisability of having special exhibitions of the above character every year. One year we should have midwifery instruments; another year, instruments used in ophthalmic surgery; and so on, until the whole list of surgical appliances had been passed in review.

I am, etc.,

HENRY GREENWAY.

Plymouth, January 2nd, 1871.

NEW BRANCHES.

MR. W. LARDNER GREEN (Tisbury), and Mr. Davis (Heytesbury) will this week propose to the Salisbury Medical Society that the members of that Society do combine to form a branch of the British Medical Association. A meeting of the profession will be held at Swansea on January 18th, to take steps to form a branch of the Association in South Wales. Mr. A. Davies, Russell House, Swansea, is acting as honorary secretary to this movement, and will be pleased to receive adhesions from members of the profession generally in that part of the country.

THE ANNUAL MEETING IN 1871.

THE Local Committee appointed by "The Three Towns," Plymouth, Devonport, and Stonehouse, to prepare for the annual meeting of the British Medical Association in 1871, have much pleasure in acquainting the members that they have succeeded in obtaining the cordial co-operation and assistance of the civil and military authorities; so that every facility will be furnished them for inspecting the naval and military arsenal; Her Majesty's ships of war in the Hamoaze and Plymouth Sound; Her Majesty's dockyards at Devonport and Keyham; the Royal William Victualling Yard and the naval and military hospitals in Stonehouse; the Breakwater and its lighthouse; the Eddystone Lighthouse; the Plymouth Citadel, the Hoe, and the forts recently erected within a radius of five miles.

By the kind permission of His Grace the Duke of Bedford, the Right Honourables the Earl of Mount Edgcumbe, the Earl of St. Germans, and the Earl of Morley, and other gentlemen, opportunities will be offered to the members of surveying the grounds and the extensive views commanded in the parks attached to their mansions on the banks of the Tamar and Plym; whereby they will be enabled to pass in review the objects before-named, as well as the magazines at Bull Point; Antony House, the seat of W. H. Pole-Carew, Esq., whereat is preserved Holbein's portrait of Dr. Butts, Physician to Henry VIII; Ince Castle, the residence (*temp.* Charles II) of the Wit of Cornwall, Killebrew; St. German's Church, the site of Cornwall's ancient Cathedral, and Port Eliot (the ancient Priory); Trematon Castle, the residence of the Norman Earls of Cornwall; the late Brunel's master-piece, the Royal Albert Bridge at Saltash; Landulph Church; Buckland Abbey, the seat of Drake, the great circumnavigator; Maristowe; Cothelie House; Pentillie Castle; Morwell Rocks; Harewood, the scene of the fair Elfreda's treachery; and other objects of interest in a trip of twenty miles by steamboat.

Other excursions will be arranged, with the sanction of the Directors, etc., of the Railways—to Launceston Castle, the ancient Cornish stronghold; to the Saxon Abbey at Tavistock; to Endsleigh Cottage; and to the wild and romantic scenery of Dartmoor.

A most interesting excursion into West Cornwall has also been planned to take place during the Association's visit.

The Royal Institution of Cornwall, under the presidency of Mr. D. J. Henwood, F.R.S., in order that opportunity may be given to the members of the British Medical Association for seeing the most noted and interesting objects in the extreme West of England under the most favourable circumstances, will make its annual excursion on Thursday and Friday, the 10th and 11th of August. Penzance, the approach to which affords an excellent view of St. Michael's Mount, will be the place of rendezvous on the first day; and, after an inspection of this most westerly and mildest of British winter resorts, the party will visit the Logan Rock and Land's End, concluding the day with an evening meeting at St. Just. On the morrow the famous mine of Botallack will be explored, the fine northern coast line will be skirted, and the excursion will terminate in the picturesque neighbourhood of St. Ives, in time for the return journey to Plymouth. The line of route presents a great many remarkable objects of antiquity, especially primeval ones. Those who may wish to return to Plymouth on Thursday, the 10th, will be conveyed to Penzance direct from the Land's End, so as to reach their destination at 10.25 P.M.

A steamer will be engaged to make short trips daily, and at stated hours, during the visit of the Association, thus enabling those members who may not be desirous of hearing the delivery of certain papers, to spend their time agreeably in viewing the rich scenery of the port.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE next meeting will be held at the Midland Institute, Birmingham, on January 12th, at 3 P.M.; Thomas Underhill, Esq., President, in the Chair.

T. H. BARTLEET, *Honorary Secretary*.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.

SATURDAY St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. F. J. Gant, The Lettsoman Lectures on Excisional Surgery of the Joints; The Conditions appropriate for Excision; The Operations; After-Treatment and Results. Lecture 1, "The Knee."

TUESDAY.—Ethnological Society of London, 8 P.M. Lieutenant S. P. Oliver, R.A., "Prehistoric Remains in Brittany"; Dr. Hooker, C.B., "Exhibition of Stone Implements from Queen Charlotte's Island"; Rev. D. R. Thomas, M.A., and T. Mc. K. Hughes, M.A., "Cairn, near Cefn, St. Asaph."—Royal Medical and Chirurgical Society, 8 P.M. Dr. C. T. Williams, "On the Duration of Phthisis, and on certain conditions which influence it"; Mr. J. G. French, "On the probable Cause of the *Post Mortem* Muscular Contractions in Cholera, and on the Philosophical Treatment of the Disease."

WEDNESDAY.—Epidemiological Society, 8 P.M. Dr. Christie, of Zanzibar, "On Cholera in East Africa."—Hunterian Society, 7 P.M., Meeting of Council, 8 P.M. Dr. Hilton Fagge, "On a case of Dilatation of the Stomach."—Royal Microscopical Society, 8 P.M. Mr. B. T. Lowne, M.R.C.S., "On the Anatomy of *Ascaris Lumbricoides*"; H. J. Slack, Esq., "On the Use of Colloid Silica in Preparing Crystals for the Polariscope."

FRIDAY.—Clinical Society of London, 8.30 P.M. Annual General Meeting for the Election of Officers. Mr. T. Smith, "Case of Ulcer following Vaccination"—adjourned discussion; Dr. Silver, "On the Use of *Veratrum Viride* in Acute Rheumatism"; Mr. Teevan, "Four Cases of Operation for unusually Large Calculi."

EXPECTED OPERATIONS AT THE HOSPITALS.

UNIVERSITY COLLEGE HOSPITAL, Wednesday, 1.45 P.M. Amputation of the Foot, by Sir Henry Thompson.

KING'S COLLEGE HOSPITAL, Saturday, January 7th, 1871, 2 P.M. Excision of Knee, by Sir W. Fergusson; Removal of Hæmorrhoids, by Mr. Smith

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

MR. J. SMITH'S (Monkswearmouth) note has been forwarded to the General Secretary.

THE USE OF THE PERMANGANATES.—Mr. Bollman Condry requests us to act as arbiters in reference to an analysis of one of his preparations published in a recent number of a medical periodical, which he declares to be utterly erroneous, and highly prejudicial to his interests. We advise Mr. Condry, however, to seek, in such a matter, arbiters of purely technical qualifications. If we were to accept such an office at the wish of both parties, it would only be with the aid of the highest skilled assessors. We are accustomed to refer all questions of the kind to experts selected for their technical skill and reputation.

WE have forwarded to the General Secretary, Mr. Watkin Williams, 13, Newhall Street, Birmingham, £1:1, received as an annual subscription from Mr. R. T. Hunt, Manchester. It was probably forwarded to us by inadvertence; subscriptions to the Association being payable to the General Secretary, or, together with the Branch subscriptions, to the Local Secretaries.

EXTENSION OF THE ASSOCIATION.—Dr. Shettle, Secretary of the Reading Branch, shall receive 250 sets of documents early in the week, as requested. Dr. Procter, Secretary of the Yorkshire Branch, shall receive 500 copies. Dr. Henry Barnes's (Carlisle) wish shall be complied with.

AN Old Correspondent and Associate has forgotten to give his name; and we do not recognise the handwriting.

DR. CRACE CALVERT (Manchester) can procure the Naval Medical Report, containing Dr. Bernard's article, at Hansard's, Great Queen Street. It is a Parliamentary Blue-book.

MR. P. H. HOLLAND (London).—Full information as to the ambulance tents of the American Ambulance in Paris, has, we believe, been published by Dr. Thomas Evans, of Paris.

DR. HORACE SWETE's paper on "the Position of Medical Men receiving Resident Nervous Patients", shall have the earliest possible insertion.

MR. A. DAVIES (Swansea).—The circulars have been forwarded.

SIR,—Can you, through your "Notices to Correspondents", inform me who Helen Berkley is, and what is the title of the book written by her, whence some extracts are made on pp. 177-8 of Dr. Lory Marsh's recent work, entitled "A Book about Shams." I am, etc., VATES.

SCALPED BY BURNING.

SIR,—The case of scalping in this week's JOURNAL reminds of a very similar case which was shown to me some years ago in the Downham Union by Dr. T. G. Wales. The patient, an old man, had fallen in a fit with his head resting against the bars of the grate. The scalp was so severely burned that the whole of it sloughed away. At the time when he was shown to me, the outer table of the cranium had begun to separate, small pieces exfoliating all round the margin, which was marked out by an abundant crop of granulations. So far as I remember, there was little or no discharge. What the termination of the case was, I do not know. Perhaps Dr. Wales will be able to give us additional particulars of this, which was one of the most interesting cases I have seen.

King's Lynn, December 24th, 1870. I am, etc., JOHN LOWE, M.D.

ENQUIRER and a MEMBER (East Bridgford, Notts) complains that an L.S.A., registered, is behaving very unprofessionally, and has a plate with "Surgeon" on his door. He wishes to know what the law is in such a case, and who should prosecute. We do not think any prosecution expedient in such a case, or that it would succeed. Strictly speaking an L.S.A. has no legal right to call himself surgeon, but a moral right arises out of the past and present muddle of qualifications and long custom; and we are of opinion that in such matters registered practitioners should show kindness and good feeling to each other, and should not endeavour to stretch the letter of the law.

NEW MEMBERS.—Dr. Barnes's (Carlisle) letter shall have due attention. Proper forms of application have been forwarded to Dr. Ritchie (Leek). The alteration suggested by Mr. Hodgson (Brighton), in the last series of documents, was in time, and has been made in them, and will be observed in future cases. Mr. W. L. Green (Tisbury) shall receive further communications with enclosures.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, Dec. 17th; The New York Medical Record, Dec. 22nd; The Boston Medical and Surgical Journal, Dec. 22nd; The Madras Mail, Oct. 24th; The Shield, Dec. 31st; The Birmingham Daily Gazette, January 2nd; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Southey, London; Mr. Wardroper, London; Dr. J. D. Rendle, Clapham; Dr. J. B. Tuke, Cupar, Fife; Mr. T. Read, London; Mr. A. Pope, Lee; Dr. Christian, London; Dr. Grieve, London; Dr. Treutler, Kew; Mr. H. Greenway, Plymouth; Dr. Lanchester, Croydon; Mr. A. H. Dolman, Derby; Dr. Boycott, London; Mr. Wheelhouse, Leeds; Dr. Rumsey, Cheltenham; Mr. Wanklyn, London; Dr. Corbould, Bath; Mr. G. R. Thomas, Midhurst; Messrs. King and Co., London; Dr. Procter, York; The Secretary of the Epidemiological Society; The Secretary of the Ethnological Society; Mr. Bartleet, Birmingham; Mr. P. H. Maud, London; Mr. H. Hemsted, Whitchurch; Dr. H. Barnes, Carlisle; Dr. A. P. Stewart, London; Dr. H. Swete, Weston-super-Mare; Mr. J. Waring-Curran, Mansford; Messrs. Calvert and Co., Manchester; Mr. J. J. Saville, Sunderland; Mr. Tomlinson, London; Surgeon-Major Ross, Calcutta; Dr. Pentland, Drogheda; Dr. Seaton, London; Mr. J. Gamgee, London; etc.

LETTERS, ETC. (with enclosures), from:—

Sir Henry Thompson, London; Dr. J. Hughes Bennett, Edinburgh; Dr. George Johnson, London; Mr. Joseph Lister, Edinburgh; Mr. Alfred Haviland, London; Dr. E. Symes Thompson, London; Our Liverpool Correspondent; Mr. Francis Mason, London; Dr. Joseph Rogers, London; Dr. Robert Barnes, London; Our Dublin Correspondent; Mr. Jonathan Hutchinson, London; Dr. Habershon, London; Dr. Fuller, London; Dr. Savage, Alston, Cumberland; Mr. Wright, Knaresborough; Mr. J. Chapman, London; Mr. H. Smith, London; Messrs. Robertson and Scott, London; Dr. A. Pullar, London; Dr. Falconer, Bath; Our Edinburgh Correspondent; Messrs. J. and A. Churchill, London; Messrs. Cox and Co., Brighton; Dr. Basham, London; Dr. T. J. Aubin, Jersey; Dr. Shettle, Reading; Mr. A. Davies, Swansea; Dr. T. Head, Warwick Bridge, near Carlisle; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Dr. Pilkington, Chorley; Mr. Wm. Mac Cormac, London; Mr. J. H. Mills, London; Mr. Wagstaffe, London; Dr. B. Chevallier, Ipswich; Dr. Heywood Smith, London; etc.

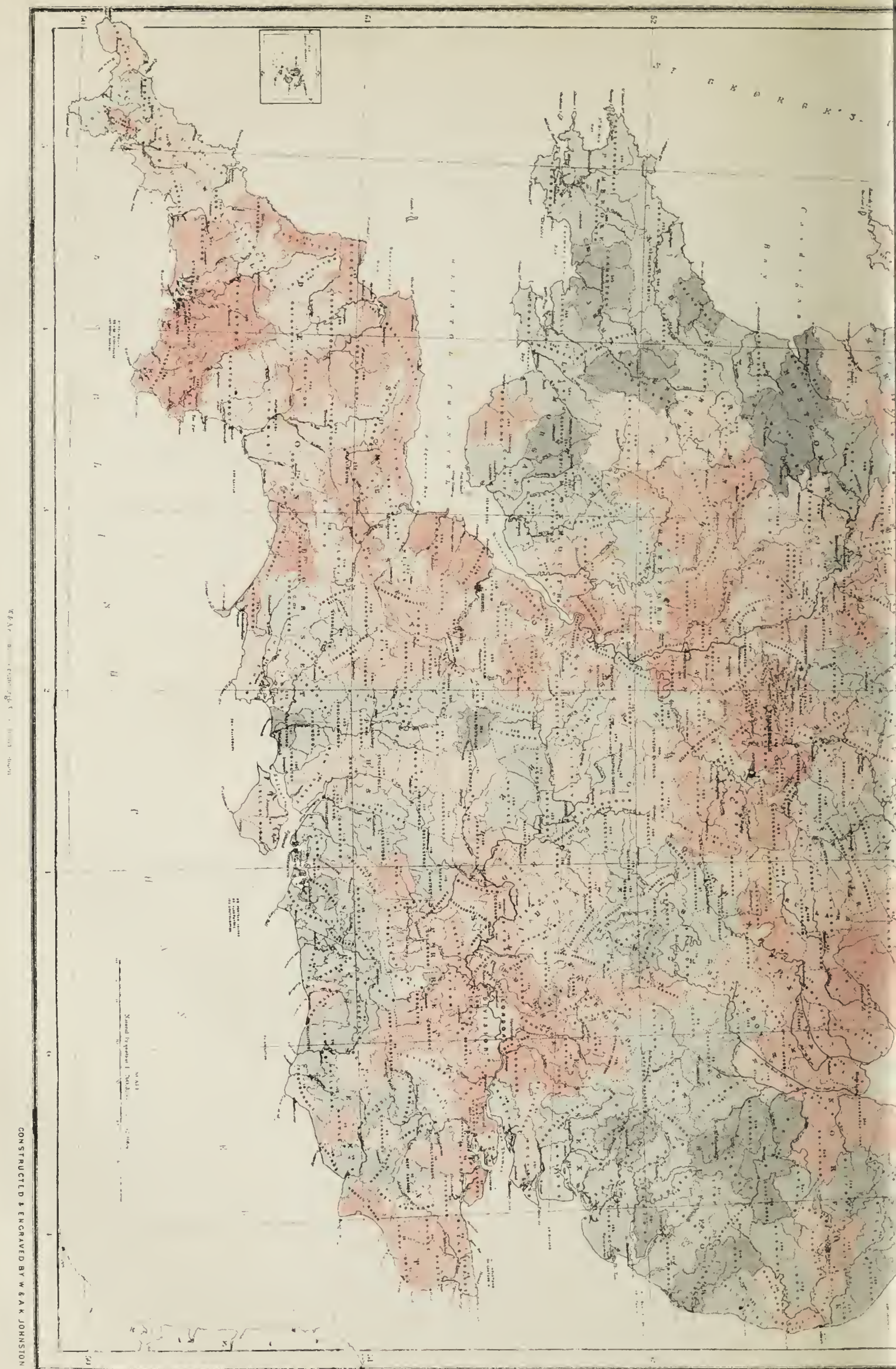
BOOKS, ETC., RECEIVED.

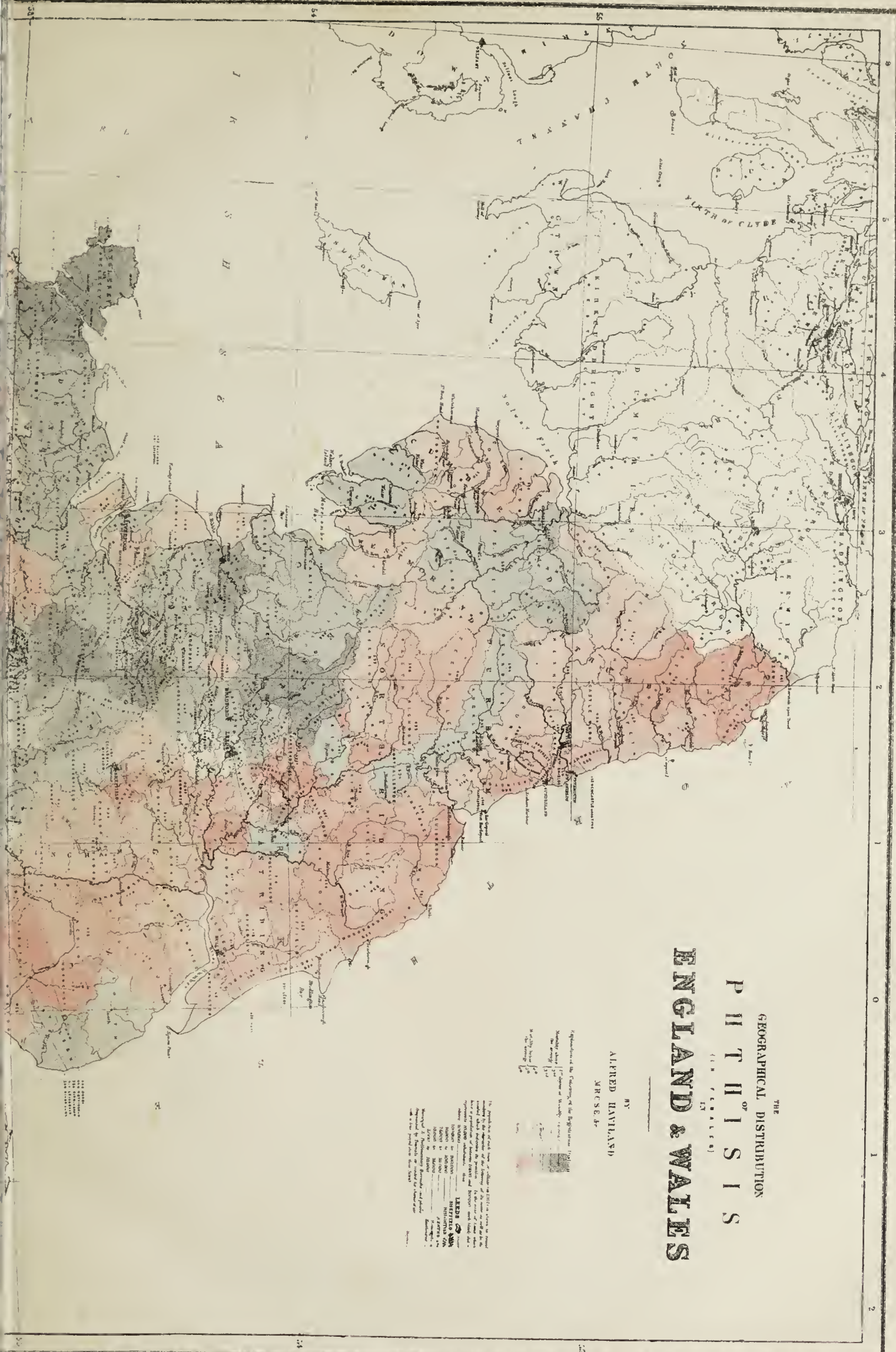
Pocket Diagrams and Notes of Valvular Heart-Disease. Edited by Professor Harvey, M.D. Edinburgh: 1870.

Observations on some of the more Recent Methods of Treating Wounds, and on Excision of the Knee-joint. By E. Lund, F.R.C.S. Manchester: 1870.

Introduction to the Study of Inorganic Chemistry. By W. A. Miller, M.D., D.C.L., LL.D. London: Longmans. 1870.

Descriptive Catalogue of the Dermatological Specimens contained in the Museum of the Royal College of Surgeons, England. London: 1870.





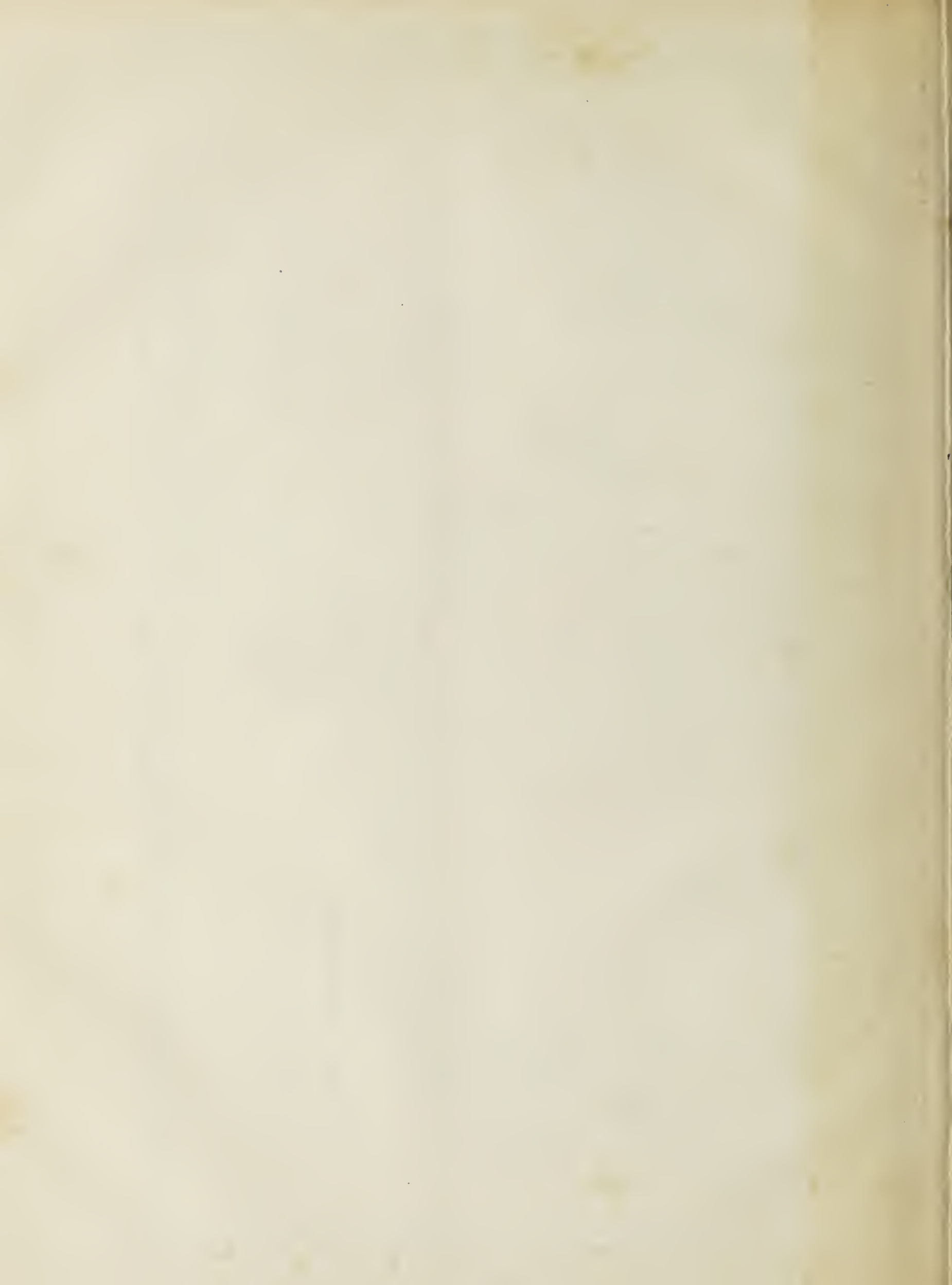
THE
GEOGRAPHICAL DISTRIBUTION
OF
PITHILIS
(IN FEMALE)
IN
ENGLAND & WALES

BY
ALFRED HAVLAND
M.R.C.E.S.

Figures of the Frequency of the Epidemic (1861-1869)
Monthly Mean (1861-1869) of the Epidemic (1861-1869)
Monthly Mean (1861-1869) of the Epidemic (1861-1869)
Monthly Mean (1861-1869) of the Epidemic (1861-1869)

Table with 2 columns: Region, and Frequency of the Epidemic (1861-1869). The table lists various regions of England and Wales and their corresponding frequency of the epidemic.

Region	Frequency of the Epidemic (1861-1869)
London	100
South-East	80
South-West	60
West	40
North	20
Yorkshire	10
North-West	5
North-East	3
Yorkshire	2
North-West	1
North-East	1



A LECTURE ON DIAGNOSIS AND PROGNOSIS IN CASES OF BRIGHT'S DISEASE.*

By GEORGE JOHNSON, M.D., F.R.C.P.,

Professor of Medicine in King's College; Physician to King's College Hospital.

CHRONIC Bright's disease, with the anatomical character of a large white smooth kidney, has in many respects a different clinical history from that which we have just now been considering. Like the small red kidney, it is sometimes the result of an insidious chronic degeneration; but, unlike it, the large white kidney is often a sequel of an acute inflammatory attack ("acute desquamative nephritis"), and we are thus enabled in some cases to determine the exact period at which the disease began. We may learn that, some months or even years ago, the patient had acute Bright's disease and dropsy; that the dropsy disappeared, but the urine never ceased to be albuminous. The history of these chronic cases sometimes extends over a period of many years. One case that came under my observation terminated fatally after albuminuria had continued for more than twenty years, one at the end of eleven years, and one after an illness of ten years. These were all cases of enlarged white kidney. Some writers have stated that the cases of chronic Bright's disease which have the slowest and the longest course are those associated with the small red granular kidney; but this statement does not accord with my experience. I have met with no cases of small granular kidney in which the disease has been known to exist for so long a period as in the cases of the large white kidney to which I have just now referred. It must, however, be borne in mind that the course of the disease which results in the small granular kidney is often so insidious, that it may have existed long before it was recognised or suspected.

In some cases, we may trace back the probable commencement of a chronic renal degeneration to a period when the patient began to be troubled to rise once or oftener in the course of the night to pass urine. This increased frequency of micturition may be a result either of a more abundant secretion of urine, or of some abnormal and irritating quality of the secretion acting as an irritant upon the bladder. With a history pointing to the existence of a large white kidney, the condition of the urine may vary considerably. The most favourable appearances are, a natural sherry colour, with normal specific gravity, a moderate amount of albumen, absence of all sediment and tube-casts, or a light cloudy deposit containing small hyaline casts; the amount of urine secreted being about normal. As the structural changes in the kidney increase, the urine loses its natural sherry colour, and at length it may become almost as colourless as water. The measure of urine secreted



Fig. 7.—Oily Casts and Cells. X200.

varies considerably, being sometimes much in excess of the normal amount, more frequently below it. The dropsical symptoms, as a rule, bear an inverse relation to the amount of urine secreted, and a direct

relation to the drain of albumen from the blood. The dropsical tendency, too, is favoured by the dry and inactive state of the skin which is commonly associated with chronic renal disease.

The gland-cells in the advanced stages may undergo a partial oily transformation, or they may be replaced by unorganised fibrine, which fills the tubes. Both these changes are indicated by the character of the tube-casts: the oily transformation by oily casts and cells (see Fig. 7); the fibrinous exudation by large hyaline casts having a diameter equal to that of the tubes in which they are moulded. (See Fig. 3, *a*.) When urine of pale colour and highly albuminous deposits a copious and rather dense whitish sediment, mainly composed of large hyaline and large granular casts, we may be sure that the glandular tissues are becoming rapidly disorganised, and that uræmic symptoms will speedily occur. I know of no appearances in the urine which are of more unfavourable import than those which I have just now described. The microscopic appearances to which I refer sometimes present themselves in the more advanced stage of a case in which, at an earlier period, oily casts and cells have formed the chief microscopic sediment. This sequence of events occurred in a case which I watched from its commencement to its termination, during a period of ten years. The case was one in which a large white granular fat kidney subsequently underwent a process of atrophy and contraction, the progress of the disease in its different stages being clearly indicated by the microscopic appearances in the urine. (See Figs. 8, 9, and 10.) The preserved specimens from which these drawings were taken I have in my possession, and they still retain their characteristic appearances. The disease began as an attack of acute desquamative nephritis. This passed into a chronic form of disease, with the appearance of oily casts and cells. After a period of nine years, these were associated with, and afterwards replaced by, large granular and large hyaline or waxy casts. The kidneys were much reduced in size, their combined weight being only seven ounces and three-quarters; but their appearance was very different from that of a small red granular kidney. Their cortical substance was pale, and presented numerous yellow oily granulations, showing clearly that in this case contraction of the kidney had followed upon enlargement, with fatty degeneration of the glandular tissues.

I have before stated that the urine in cases of acute Bright's disease is usually more or less tinged by admixture with blood, which probably escapes from the ruptured Malpighian capillaries. During the progress of the various forms of chronic disease, the walls of the minute arteries become hypertrophied, and those of the Malpighian capillaries gradually become thickened. Consequently, the capillaries are less liable to rupture, and the urine is rarely blood-tinged. When the urine is highly albuminous, of low specific gravity, and not only free from blood-tinge, but pale, from a deficiency of its normal colouring matters, there is reason to suspect the existence of advanced chronic renal disease. On the other hand, the appearance of dark coloured, smoky, or blood-tinged urine is, *pro tanto*, evidence of a recent acute affection of the kidney. I must warn you, however, to be on your guard against an occasional source of fallacy. It is this: in the advanced stage of chronic Bright's disease, the blood becomes much deteriorated, partly by the loss of its normal constituents, and partly by the retention of urinary excreta. There is, consequently, a tendency to hæmorrhage from various mucous surfaces—from the nose, the lungs, the stomach and intestines, from the uterus, and sometimes from the bladder. The hæmorrhage from the bladder gives the urine the blood-tinged appearance which it often has in cases of acute Bright's disease, when blood escapes from the substance of the kidney. You may come to a right judgment in these cases by a careful consideration of the past history, together with a close inspection of the urine. You will probably find that there are no blood-casts of the tubes, as there are when the substance of the kidney is the source of the bleeding. You may find some of those forms of tube-cast which point to the existence of chronic rather than recent acute disease: for instance, oily casts (Fig. 7), or large granular and large hyaline casts (Fig. 6). You may also find that the urine, when, after standing for a time, it has deposited the blood, presents the pale colour which is indicative of chronic disease in an advanced stage. When a doubt exists as to the renal disease being of recent origin or of long standing, the evidence of hypertrophy of the left ventricle of the heart, without valvular disease, but with a full and firm radial pulse, the result of excessive resistance to the passage of the blood through the minute systemic arteries, whose muscular walls are also hypertrophied—this evidence points to the existence of chronic renal disease. (Upon this point, see a paper by the author, *BRITISH MEDICAL JOURNAL*, April 16th, 1870.)

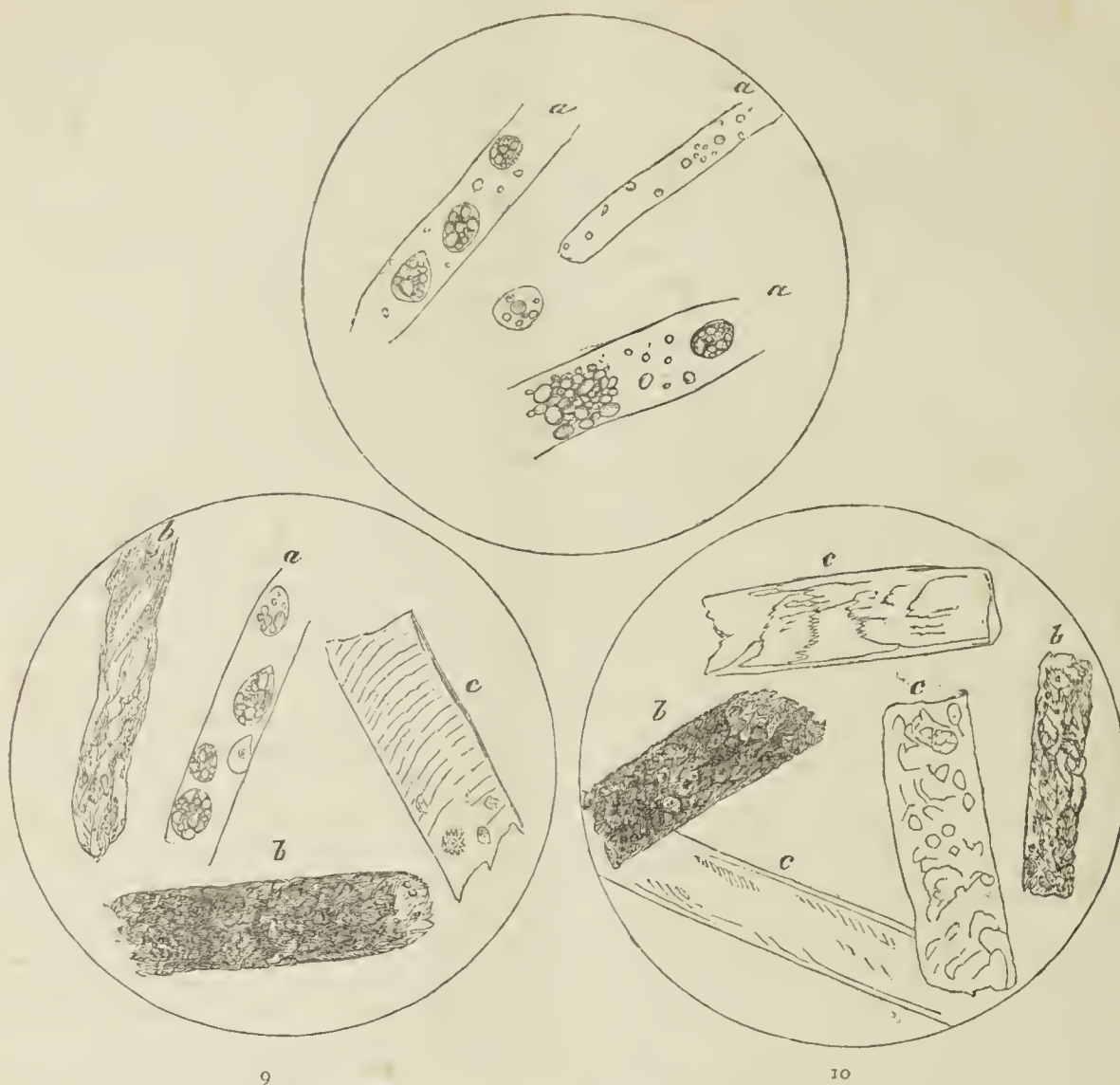
In cases of the large white kidney, the mode of death is usually different from that which is of most frequent occurrence in cases of the small red granular kidney. Uræmic convulsions, coma, and typhoid symptoms, are less frequent; while, on the other hand, an excessive

* Concluded from page 5 of last number.

dropsical accumulation, causing great distension of the skin, often results in fatal inflammation and sloughing of the integuments. In other cases, a dropsical accumulation within the chest, or engorgement and oedema of the lungs, may cause death by apnoea. In all forms of chronic Bright's disease, gastro-intestinal symptoms, vomiting, and

their walls. This serous transudation, mingling with the urine, renders it albuminous. Sometimes the distended capillaries have their walls ruptured, and blood escapes into the tubes and tinges the urine. It is interesting to note the action and reaction of renal and cardiac disease upon each other. In one case I observed the following se-

8



9

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Fig. 8.—Period of Fatty Enlargement of the Kidney.
Fig. 9.—Commencing Atrophy and Contraction.

Tube-casts at three successive periods of the same case.

Fig. 10.—Advanced Atrophy and Contraction. *aaaa*. Oily Casts and Cells.
bbbb. Granular Casts. *cccc*. Large Hyaline or Waxy Casts. X200.

purging, the result of the vicarious elimination of urinary excreta, may induce a fatal exhaustion.

Some recent writers affirm that impairment of vision, the result of degeneration of the retina, with or without hæmorrhage into its tissue, is almost exclusively associated with the small granular kidney. It so happens that most of the cases of retinal degeneration that I have seen have been associated with the large white kidney.

In the advanced stages of valvular disease or degeneration of the muscular walls of the heart, and in cases of emphysema of the lungs, with bronchitis and consequent retrograde engorgement of the systemic venous system, passive congestion of the kidney frequently causes not only dropsy, but also albuminuria and even hæmaturia; the urine containing small hyaline and blood casts. The secondary character of the renal complication is usually apparent from the history of these cases; and the diagnosis may sometimes be confirmed by the fact that, when the circulation has been relieved by rest in bed, by hydragogues and other suitable remedies, while the physical signs of the cardiac disease remain, the albumen disappears from the urine, to return, perhaps, when the circulation again becomes more embarrassed within the chest. I have seen this happen again and again during the progress of the same case.

The mechanism of albuminuria consequent on the passive engorgement of the kidney which results from an impeded return of blood through the veins, may be illustrated by reference to Fig. 11.

When, in consequence of an obstruction at the heart, the systemic veins become overfull, the distension of the renal vein, acting backwards through the intertubular capillaries, causes engorgement of the Malpighian capillaries, and a consequent transudation of serum through

quence of events. A gentleman had acute Bright's disease with anasarca, from which, after many months, he completely recovered.



Fig. 11.—Plan of the Minute Structure of the Kidney. *a*. Artery, sending an afferent branch, *af*, which breaks up into *m*, the Malpighian capillaries. *ef*. Efferent vessel which conveys the blood from the Malpighian capillaries into *p*, the plexus of capillaries between the tubes. These again unite, and form the vein *v*. *l*. The uriniferous tube. *c*. The capsule of the Malpighian body. The course of the circulation is indicated by the arrows.

During the progress of the disease there was developed a systolic bellows-sound over the base of the heart—the result, probably, of uræmic endocarditis. The bellows-sound remained after all symptoms of renal disease had passed away; and in time it became a double basic murmur, with the usual physical signs of incompetent aortic valves. For some years the valvular disease caused but little functional disturbance; but at length, with increasing obstruction of the circulation, dropsy came on, and with it albuminuria from passive congestion of the kidney. Death occurred in about ten years from the commencement of the renal disease. In this case it will be seen that a primary renal disease was the exciting cause of valvular disease of the heart; and that, the renal disease having passed away, the cardiac disease ultimately caused dropsy and a secondary albuminuria, the result of obstructed circulation and passive congestion of the kidney.

ON MUSCULAR ATROPHY (MALADIE DE CRUVEILHIER).*

By J. T. BANKS, M.D.,

President of the King and Queen's College of Physicians in Ireland.

CASE II.—The next case which I propose to detail is that of a lady about twenty-five years of age, in whom the disease commenced about three years and a half since. In the year 1867, she was brought to my house by her brother, a young and well-informed physician, who had closely watched the case, and kindly furnished me with accurate notes. Some time before I saw this lady, she had consulted my friend and colleague Professor McDowel.

In the month of May 1866, this lady perceived that her left hand, particularly the thumb, was so weak that she found it difficult to strike the keys of the pianoforte. On investigation, however, it was found that the hand had been for some time previously much weaker than the other. Up to this time, she had been in the possession of fair average health. Her habits were active; she was of a nervous temperament, highly intellectual, and of a cheerful disposition. The only point connected with the history of her family worthy of notice, is that her father was the subject of locomotor ataxy, which existed for six years, and that his death was caused by apoplexy.

On examining the left hand when the lady complained of weakness, the ball of the thumb was found to have lost its natural plumpness, and the thumb had lost the power of adduction, so that she could not touch the tip of the little finger with it. The treatment recommended by Dr. McDowel and myself was, the syrup of phosphate of iron with strychnia and quinine, with faradisation to the affected part. For nine months this treatment was steadily pursued without the disease being in the least influenced by it, the atrophy slowly but perceptibly progressing.

In the December of 1867, six months after the left hand was first observed to be affected, the same phenomena presented themselves in the right hand; and the order was precisely the same, the thumb being the first part assailed. At the end of one year from May 1867, the left hand and the right were almost powerless, both presenting the peculiar and characteristic claw-like appearance, the "main de griffe." The muscles of the forearm were next invaded, the flexors more particularly, those of the left arm more rapidly changing than the right.

In fifteen months from the commencement of the disease, the lower extremities were attacked. At first, weakness and weariness were experienced on slight exertion, soon followed by inability to move. The atrophy of the muscles of the legs was not very marked; but they were soft and flabby. Finally, there was utter and complete inability to support the body. Two years from the first manifestation of the malady, it was evident that muscles which frequently escape the ravages of this most terrible disease, or are only affected at a very advanced period, were engaged. The pronunciation of labials and dentals became difficult; and, finally, the power of speech was nearly lost. Soon deglutition was impeded; soft solids could be got down better than fluids; but the attempt to swallow is always a struggle most painful to witness. The power of mastication is altogether lost. For the last five months no articulate sound has escaped her lips; her effort to speak is a mumbling occasionally intelligible to her sister, but conveying nothing to a stranger. There is a constant and profuse flow of saliva. The atrophy is now almost universal. The tongue lies motionless on the floor of the mouth. Still there are some muscles which have escaped the devastation of disease. The face does not present the appearance of emaciation. When last I saw this poor lady, I was

struck by the want of correspondence between the face and the other parts of the body; she was reading, and her eyes beamed with intelligence. When alone, I was informed that she managed to turn the leaves of her book with her chin. There has been, it should be observed, no diminution of sensibility, rather an exaltation. Nor is there any difficulty of maintaining the temperature of the extremities. At times, she complained of tenderness of the surface, and pain was felt on pressing the spinous processes of the third and fifth cervical, and the eleventh and twelfth dorsal vertebræ. From the earliest period, although the disease pursued its course, invading in succession the various parts indicated with unrelenting severity, there were short intervals when it seemed to stand still, affording delusive hopes of improvement, soon destined to disappointment. A more painful case can scarcely be conceived; and, in truth, no description can convey an adequate idea of the reality. About a fortnight having elapsed since I saw this lady, I visited her brother to-day to ascertain her present condition. He tells me there exists a painful state of hyperæsthesia, the slightest touch causing pain and spasm. The muscles of the neck are rapidly wasting. She has difficulty of supporting the head, and deglutition is more painfully difficult.

CASE III.—Mr. M., aged 25, a civil engineer, the son of strong and healthy parents, still living, with no hereditary predisposition to disease, was temperate and regular in his habits, vigorous and active, and of a high order of intellect. On obtaining an appointment, he proceeded to India, and arrived at Calcutta on the 25th September, 1866—to use his own words—"in perfect health." In a few days he went to Port Canning, a place notoriously unhealthy; so much so, that higher wages than ordinary are given as an inducement to the natives to reside there. The unhealthiness of the locality was proved to Mr. M. by the prevalence of disease among the people under him, although he learned that the season was exceptionally healthy. The place had been partially cleared of jungle, but it was undrained. The water was brackish, and this the natives used; for the use of the Europeans, water was brought from Calcutta. The surface of the ground was four feet below high water-mark of ordinary spring tides.

Notwithstanding the extreme insalubrity of Port Canning, Mr. M. continued to perform his duties, which obliged him to be out until midday, without observing any change from his ordinary good health until November 12th. He then had an attack, the symptoms of which, he says, were headache and sickness of stomach, with fever. The duration of the illness was four days. On going to Calcutta, he quite recovered in two days, and returned to Port Canning.

About the middle of December, he felt pains which he considered rheumatic in both arms. The pains continuing, he sought advice the following month (January 1867), finding, also, that there had been a gradual diminution of strength in the arms. He observed that the weakness commenced in the right hand.

On January 19th, he found it difficult to raise a full glass to his mouth. The weakness increasing, he consulted physicians in Calcutta; and, by their advice, he employed galvanism, a current being passed from his neck or shoulder through each arm for about a quarter of an hour each time; the arms and legs being also well rubbed by hand each day. He also was directed to take syrup of iron and strychnine. Writing soon became a matter of extreme difficulty; and March 11th was the last entry in his diary. Still he could sign his name; but the operation was performed slowly and laboriously—the pen being fixed between his fingers, and, if ink were required, the pen being removed for him. Gradually the arms became powerless.

On March 26th, a second consultation of physicians was held, and he was ordered to leave the tropics forthwith, an order which he disregarded. For some time he had found that he could only manage to feed himself by means of a spoon or fork, stooping his head near the plate; but on the evening of the consultation, he found it impossible by any means to feed himself. During all the time up to the end of March, he walked each day, taking a considerable amount of exercise, but always finding walking on uneven ground, or going up and down stairs, difficult. He was also unable to rise from his chair without assistance. At length, after falling repeatedly and being unable to get up without assistance, he gave up the attempt to walk alone. He had also been in the habit of riding; and this he continued as long as he could, being assisted on to the saddle; and his horse, which had previously the habit of bolting and other bad habits, became so gentle that he could ride him anywhere with the reins lying on his neck, being unable to hold them, at least with any effect.

Still he remained in charge of the municipality up to April 22nd (seven months), having completed a report of the works while he was in charge, and also a detailed statement of projected works for the following year; and so admirably had he done his work, that he received the thanks of the authorities. On May 7th, he left Port Canning; and,

* Continued from page 3 of last number.

on the following day, he was almost carried on board ship. For the first week after he sailed from Calcutta he could not leave his cabin. He had an attack of ague, with, for two days, such sickness of stomach that nothing remained on it. After recovering from this ague-fit, he gradually gained strength, so that five weeks later, when he arrived at Southampton, he could walk unassisted, and move his fingers better. There was, however, utter and complete inability to raise the arms from the side. He was, however, able to move a book or pull a light chair if he could get a hand on it. The pains which were present early in the disease disappeared altogether when the arms became powerless. There never was the slightest diminution of sensibility in either arm; if an arm were subjected to pressure by lying on it, the sensation of "pins and needles" was experienced.

On June 26th, I was consulted by the gentleman whose history, from his own notes, I have detailed. His arms hung powerless by his side; all the muscles of the arm and forearm, and the muscles around the shoulders, were much wasted; his head slightly drooped. The sensibility was perfect. His legs were thin, but he could walk well. I requested to have a consultation with Dr. Stokes, who saw him with me on the following day. We recommended electro-galvanism, needles being inserted into the skin; and salt water shower-baths, followed by friction to the arms. We also advised him to take a drachm of the syrup of the phosphate of iron, strychnine, and quinine, three times a day. He found that, although the shock was slight, the needles caused sickness; so that he resumed his former mode of applying the current. From the time when this gentleman was seen by Dr. Stokes and myself (June 26th) until the beginning of November, he had an attack of ague about every ten days. Living at the seaside, he took a salt water shower-bath daily, and had his arms and shoulders well rubbed with a flesh-brush. He also continued the electro-magnetism and the syrup. He almost lived in the open air. The treatment he continued up to December. The syrup he ceased to take at the end of September, and the application of the electricity was discontinued in a month afterwards. By the end of November he could feed himself, cut his dinner, pull a light oar, steer a boat, also write freely; but he could not raise a weight, or pull on a heavy coat.

On December 19th, I saw the patient, and was most agreeably surprised at the progress he had made. There had been a manifest increase of muscle, not only of the wasted parts, but of the body generally.

On the 8th of the following month (January), he went to St. Anne's, Blarney. He commenced to take hot-air baths—four in the first ten days, remaining an hour or more in the bath. He found himself weaker, which to some extent he attributed to giving up wine and beer. He subsequently took a bath each day, followed by energetic shampooing, remaining only half the time in the bath that he had done at first. He again improved; and, after a sojourn of two months at Blarney, during which he took a bath daily, he left it decidedly improved, and better able to walk up and down hill than on his arrival.

On March 4th, after a drive about Dublin (the day being very cold), he again had an ague-fit, the first since January 6th. The attack was unusually severe. On this occasion, the shivering fit was followed by very high fever and headache of intense severity. Finding I was out of town, he sent for Mr. Butcher. After some days, he recovered, and went to Bray, where he resumed the use of the hot-air bath. By the middle of April he was able to walk round Bray, and from this date he had no return of ague; and he winds up the notes with which he kindly furnished me by saying, "I feel myself so well that I believe myself now (May 24th, 1868) quite capable of undertaking work again." From this time he has continued well, and is now engaged as engineer of a railway.

THE HOSPITAL FOR SICK CHILDREN.—We are requested to intimate the following liberal arrangements for clinical teaching at this hospital:—"That the practice of the hospital be thrown open gratuitously to the pupils of the different hospitals and medical schools in London; but that not more than four from each school be offered the privilege at one time. That the admission be limited to a period of three months, but be renewable on application. That the pupils so admitted bring with them recommendations from one of the medical officers or teachers of their school, and that they receive from the House-Surgeon a ticket authorising them to attend the practice. That the names of gentlemen so admitted, with the date of their admission and the schools with which they are connected, be entered in a book; and that, if their attendance be regular, they shall receive a certificate testifying to such attendance. That, in order to render such visits more useful, each of the senior medical officers engages to give clinical instruction at the bedside, or after the visit, once a week." This arrangement will commence on Tuesday, January 17th.

ON A CASE ILLUSTRATING THE PRESENT ASPECT OF THE ANTISEPTIC SYSTEM OF TREATMENT IN SURGERY.

By JOSEPH LISTER, F.R.S.,

Professor of Clinical Surgery in the University of Edinburgh, etc.

A YOUNG man, eighteen years of age, was lately admitted under my care in the Royal Infirmary on account of impaired usefulness of the right arm, resulting from an accident which befel him three months previously, when the handle of a winch, revolving with great rapidity, struck the limb at the posterior aspect, about three inches below the elbow, breaking the ulna and dislocating the upper end of the radius forwards, the lower ends of the bones of the fore-arm being tilted backwards to a corresponding degree. He at once sought medical aid; but, strange to say, the nature of the injury was not recognised, and the result was that when I saw him the fragments of the ulna were firmly united at an obtuse angle with each other; a marked depression existing posteriorly over the seat of fracture, while the head of the radius formed a prominence at the anterior and outer aspect of the joint, being securely maintained in its abnormal position through the connection of the other end of the bone with the lower end of the ulna. The elbow could not be flexed beyond a right angle, so that he could not put his fingers to his mouth; and, although the hand could be rotated passively, he was quite unable himself to execute pronation or supination. He also complained that the limb was so weak that he could not lift any heavy object from the ground, and expressed great desire to have this faulty state of matters rectified.

It was plain that before an attempt at reduction of the dislocated radius could be made with any chance of success, it would be necessary to break again the united ulna. But, considering the length of time that had passed since the accident, and the slowness of the leverage that could be obtained upon the seat of fracture so near the elbow, it seemed hardly likely that this object could be attained without a cutting operation. And even supposing the bone to give way, I felt it very doubtful whether the dislocation could even then be reduced, both on account of its long duration and because the angular form which the ulna had assumed implied a shortening of the fore-arm, which at that late period necessarily affected all its textures. On the other hand, there could be little doubt that, if the ulna were exposed and divided, and if, further, the head of the radius were removed, the limb could be at once restored to its proper form. But to do this would be to make voluntarily a compound fracture of the ulna and a compound dislocation of the elbow-joint—a procedure which, under ordinary treatment, I should have regarded as unjustifiable. But with the means now at our disposal of guarding against the mischievous influence of external agents upon wounds, I believed that these two operations could be performed without any chance of mischief resulting. Accordingly, at a clinical lecture on the 12th December, having explained the aspect of the case, and having failed to rebreak the ulna by very forcible measures under chloroform, I first washed the skin of the fore-arm and elbow with 1 to 20 watery solution of carbolic acid, to destroy all putrefactive particles in the epidermis and hair-follicles, and then made a longitudinal incision about two inches long over the back of the ulna where it had been broken, while an assistant threw over the part a cloud of spray of 1 to 40 carbolic lotion by means of Richardson's apparatus; and, having sufficiently detached with the knife the muscles from the bone, and ascertaining precisely with the finger the situation of the callus, I inserted the blades of a pair of strong bone-pliers, smeared with an oily solution of the acid (1 to 10), and, cutting through the bone, used the pliers as a powerful lever to wrench the fragments sufficiently apart, and detach them enough from surrounding soft parts to insure free mobility, the antiseptic spray being meanwhile constantly maintained. A sponge wrung out of 1 to 40 watery solution having then been bandaged upon the wound, I made an attempt to reduce the dislocation of the radius; but, meeting with the failure I had anticipated, I at once cut down upon its head in a cloud of spray, and removed it by nipping through its neck with the pliers, the blades of which had been again smeared with the oil. A folded cloth dipped in the watery solution having been laid upon the wound, I had the satisfaction of finding the fore-arm assume, under moderate extension and coaptation, a perfectly normal shape. The limb was then enveloped in lac-plaster from the middle of the arm to the lower part of the fore-arm, the sponge and cloth having been previously removed under the spray, the wounds being left unstitched, to secure complete absence of tension from accumulating blood or serum. Cloths to absorb discharge, and a roller smoothly applied so as to adapt the

plaster well to the limb, and a pair of Gooch's splints, anterior and posterior, with a special pad in front over the seat of fracture, completed the dressing, the elbow being kept at a right angle.

Next day, the dressings were entirely changed, when it was found that a good deal of blood and serum had oozed into the cloths. The lac-plaster was cut up with scissors along a line distant from the wounds; and, as it was raised from the limb, the spray of 1 to 40 lotion was made to play beneath it. The gaping wounds were found filled with blood-clot, while the limb was free from swelling, redness, or tenderness. The limb having been washed from bloody stain with a cloth dipped in 1 to 40 lotion, while the wounds were kept covered with bits of rag wrung out of the same, oiled silk "protective",* dipped in the lotion to give it a temporary antiseptic film, was placed upon each wound to protect it from the stimulating action of the acid in the lac-plaster, which was then wrapped round the limb in two layers, extending several inches beyond the "protective" in every direction, after which the splints were reapplied as before.

This dressing was left unchanged for two days, after which the patient was again dressed in a precisely similar manner before the clinical class, walking into the theatre and upstairs again to his bed just like a person affected with a simple fracture or dislocation. His pulse was 70, his temperature 98.2, and he was entirely free from pain. The stain on the cloths corresponded to about half a drachm of bloody serum; the clots remained unaltered in appearance in the wounds, and the limb in the vicinity had still a perfectly natural aspect. Feeling sure that the discharge would now be very slight in amount, I left this dressing untouched till the following lecture, four days later, or just one week after the operation, when the wounds were again exposed before the class. All remained the same, except that while there was no pus, and merely a stain corresponding to a few minims of serum as the product of both wounds for four days, the blood-clots had been extensively converted into vascular tissue, while some portions yet unvascularised had assumed a grey or yellowish colour, and in both wounds there was a broad cicatrising margin. Healing, though under a moist dressing, was going on as under a scab; or, in other words, putrefaction being excluded by means of an efficient antiseptic guard, while the exposed tissues were protected from the action of the antiseptic salt by the interposition of a layer of unstimulating material, the disturbing influence of external agency was avoided, and we attained very closely to the conditions of a subcutaneous injury.

On this occasion, instead of the lac-plaster, a folded muslin cloth, of open texture, imbued with a mixture of paraffin, resin, and carbolic acid, was employed to combine the functions of the lac-plaster and absorbing cloth. Hitherto I have been opposed to porous antiseptic dressings, having observed that, when in the form of lint steeped in an oily solution of carbolic acid, the discharge, if at all free, washed out the antiseptic liquid from among the neutral fibres, and opened a way for the penetration of putrefaction. But, having heard reports from various quarters of the efficacy of oakum, I have lately put it to the test with granulating sores, where, if it should happen to fail, no mischief would result, and I have found it more than answer my expectations. The reason for its superiority over oily cloths is readily intelligible. Each fibre of the oakum is imbued with an insoluble vehicle of the antiseptic; so that the discharge in passing among the fibres cannot wash out the agent any more than it can when flowing beneath the lac-plaster, to a narrow strip of which an individual oakum fibre is fairly comparable. I may remark as worthy of notice by those who still cling to the idea that carbolic acid has some unknown virtue distinct from its antiseptic property, that oakum contains none of that substance, but creasote and probably other antiseptic hydro-carbons, the effects of which in preserving smoked meat are familiar.

Oakum not only proved efficient antiseptically, but presented several advantages over lac-plaster. When the latter is left as a dressing for several days together, the discharge, even though small in amount, soaking into the absorbing cloths, loses the carbolic acid it had received from the plaster, and putrefying from day to day, assumes an acrid character, and sometimes produces most troublesome irritation of the skin. This is, of course, avoided by the oakum. Again, the lac-plaster being quite impermeable to watery fluid, keeps the skin beneath it moist, and, in fact, covered with a weak watery solution of carbolic acid, which, I suspect, insinuates itself, more or less, beneath the protective, and maintains a slight stimulating influence upon the parts

beneath it. But oakum, draining away the discharge as fast as it is effused, avoids this source of disturbance. The result is, that if a granulating sore is thoroughly washed with an antiseptic lotion and covered with "protective" and a well-overlapping mass of oakum secured with a bandage, a dressing is provided which nearly approaches the ideal I have long had in view. For, as granulations do not form pus or even exude serum except when stimulated, a persistent antiseptic, combined with an efficient protective, should constitute a more or less permanent dressing under which discharge should cease and cicatrization proceed with great rapidity. Accordingly, ulcers of the leg treated in this way have been found, when exposed after the lapse of several days, either entirely healed or greatly advanced in the process, while the moisture beneath the protective has been of a serous character and the discharge collected in the oakum comparatively small in amount. Lastly, the lac-plaster has this further disadvantage from the moisture beneath it, that it prevents efficient strapping in cases that require it. But under oakum an adhesive plaster retains its hold as well as under dry lint.*

But while oakum has these great advantages, it is disagreeable to many persons from its strong tarry smell; and I have been lately endeavouring to apply the oakum principle in some shape free from this objection. Oakum consists of the detached fibres of old ropes which had been treated with Stockholm tar, among the constituents of which is common resin. I happened to notice, several years ago, that resin holds carbolic acid with remarkable tenacity, so that if one part of the latter be mixed by melting with five of the former, the glutinous mixture which results on cooling communicates only a slight warm taste to the tongue, though containing so large a proportion of the pungent antiseptic. But this material is of itself too sticky for the purpose, and resin is, besides, somewhat irritating to delicate skins. Paraffin, another constituent of tar, is remarkable for its entire absence of adhesiveness, as well as for its perfect blandness; but when pure, though it may be mingled with carbolic acid in the melted state, it separates entirely on cooling. If, however, the three ingredients be melted together, the resin, though intimately blending with the paraffin, still retains its hold upon the acid after cooling, and by a proper proportion between them, a product is obtained which, while intermediate in physical properties between the glutinous resin and the powdery paraffin, is unirritating to the most sensitive skin and highly retentive of the acid, while almost destitute of odour.†

Cheap muslin gauze dipped in the melted mass, and well wrung or pressed while hot, is an elegant and convenient form of modified oakum. It should be folded into about eight layers; and in order to prevent the discharge from soaking too directly through it, a piece of thin gutta percha tissue may be placed beneath the outer layer to guide the fluid towards the edge of the cloth.

Such was the dressing employed a week after the operation. Three days later, the wounds were found still healing rapidly without suppuration, and, on rotation of the hand, the end of the radius was felt moving in its proper place, while the ulna presented a slight convexity backwards, instead of its old concavity. The patient who had been till then confined for the most part to bed, as a matter of precaution, was now allowed to get up, a similar dressing of "protective" covered with antiseptic gauze having been applied.

Four days afterwards, on the 26th instant, the dressing was again changed, when the wound over the ulna was found almost healed, and that over the joint far advanced in cicatrization, while there was still no pus or putrefactive odour, and the general health of the patient continued excellent.

In some respects it would have been more satisfactory if sufficient time had passed to permit reunion of the ulna, so that the usefulness of the limb might be tested. But as an illustration of antiseptic treatment, the case is already complete. In this respect, I cannot but hope that it will be thought instructive. It is an example of a procedure, otherwise highly dangerous, if not unwarrantable, rendered not only legitimate, but entirely free from risk, simply because, from the

* Antiseptic adhesive plaster is readily improvised by dipping ordinary strapping in a hot solution of carbolic acid made by mixing one part of 1 to 20 lotion with about two parts of boiling water. When used in this way, strapping will adhere to a moist skin, so that it may be applied under the spray when circumstance render this desirable.

† The proportions which I have hitherto found to work best are, sixteen parts of paraffin, four parts of resin, and one part of crystallised carbolic acid. I am far from supposing that this first attempt at improving upon oakum affords the best result attainable; and I propose to institute experiments with various other constituents of tar. But it seems worth while to mention the result already arrived at, because, while it certainly works well in practice, its constituents are obtainable where lac plaster may not be so. It has the further advantage of being a very economical dressing. For the gauze loses the paraffin and resin entirely when washed in boiling water, so that it may be used over and over again, while about a halfpenny covers the expense of the ingredients required to charge a square yard.

* This protective is made by varnishing oiled silk on both surfaces with copal varnish, which renders it considerably less permeable to carbolic acid, and when dry it is brushed over with a mixture of starch and dextrine to give it a film of material soluble in water, so that it becomes uniformly moistened when dipped into the antiseptic lotion. It may be obtained of the Apothecaries' Company, Virginia Street, Glasgow. When it is not at hand, common oiled silk may be used as a substitute for it, if smeared with an oily solution of carbolic acid, and used in two layers to make up for its inferior efficiency.

circumstances of the case, and the improved means at our disposal, we could calculate with certainty on avoidance of putrefaction. I venture to draw special attention to the use of the spray. In every wound treated antiseptically, two things are always to be attended to: first, to leave the wound free from living putrefactive organisms, and, second, to employ such an external dressing as shall securely prevent the entrance of such organisms at any subsequent period of the case. The latter point has, in most cases, been for a long time past satisfactorily accomplished; but the former, till we used the spray, was always a matter of more or less uncertainty. A floating germ might enter during the operation into some cellular interstice among the tissues, and, becoming surrounded with a clot of blood, might escape the action of the antiseptic lotion with which the wound was washed, and, retaining its vitality, might subsequently propagate its kind, and spread putrefactive fermentation through the wound. But by help of the spray we operate in an antiseptic atmosphere, and effectually prevent putrefactive organisms from ever entering the wound alive. We thus dispense with the necessity for washing the wound at all with an antiseptic lotion, and in the particular case above related, not even the vapour of carbolic acid penetrated into the deeper parts of the wounds, which were thus left as free from irritation as if they had been made subcutaneously.

The spray is also of the greatest value during the stitching of such wounds as require it, and rids us of the troublesome and uncertain process of distending the wound with lotion by means of a syringe, after the introduction of the last suture. In the changing of dressings, also, the spray is in some cases, and especially in stumps after amputation, a great element of security.

Revision of the proof (Jan. 11, 1871) affords me the opportunity of giving another report of the progress of the case. On dressing the limb yesterday, after an interval of five days, I found the ulnar wound entirely healed, while at the site of the radial incision two or three granulations about as large as pins' heads alone remained to cicatrize, and an odourless serous stain of about a minim upon the gauze was the only appearance of discharge. The ulna seemed already firmly united; and, after performing passive motion throughout the range of the natural movements of the joint, I directed him to try its powers. He could himself pronate and supinate the hand, could extend the arm completely, and readily put his fingers to his mouth; and he lifted a heavy pair of tongs, exhibiting already a strength very superior to that which he had before the operation.

Edinburgh, 31st December, 1870.

OBSERVATIONS ON THE TEMPERATURE OF THE BODY IN HEALTH AND DISEASE.

By WILLIAM SQUIRE, L.R.C.P., London.

No. I.—NORMAL TEMPERATURES.

IN presenting to the profession, through the medium of our JOURNAL, a series of observations on the changes of temperature met with in disease, it may be useful to precede them with some comment upon what is known of the laws of the variations of temperature in health. Without this, not only would the significance of many of the facts bearing upon the natural history of disease lose their significance, but the therapeutic value of many of the practical deductions, always foremost in view during these investigations, would be unappreciable. The attainment of truth even in the simplest inquiries is so difficult that, in spite of the careful attention of most honest searchers after it to this particular question, some obscurity and uncertainty have collected round many of the elementary facts relating to the range of temperature in the human economy.

The limits within which the temperature of the human body may vary in disease is very generally found so closely to correspond with the observations of Andral,* that clinical thermometers are now conveniently constructed to register only from 95 to 110 deg.; and though recent Indian and Abyssinian experience shows that the higher range must be still further extended, conclusive instances are yet wanting of the temperature of the interior of the body having undergone a depression beyond the lower limit.

The normal temperature of man is but little influenced by climate. Observations reported by M. de Blainville show that both in the tropics and the polar regions it is equally maintained at, or near, 98½ degrees (*Comptes rendus de l'Académie des Sciences*, 1838, tome vi, p. 457). Climate does not modify greatly the diurnal variation of normal tem-

perature. Of this, scientific evidence is given in the careful record by Dr. John Davy, of the results obtained upon himself during a winter in England in 1844-45, for comparison with similar observations made in Barbadoes from July 1845 to November 1848; where, with a difference of from twenty to thirty degrees in the air of his dwelling, in both cases the average temperature of the body is 98.4 degrees; in Barbadoes the evening temperatures appear to be higher than those of the morning, a difference traceable to the morning and evening observations having been made at a later hour in the colder than in the warmer climate (*Physiological Researches*; London, 1863, pp. 14 and 44).

The daily range of temperature in the adult has hitherto been taken to be much less than in reality it is. Those observers who have made themselves subjects of experiment, either from having neglected the ordinary exercise of active life, or from some other oversight, have not reached a sufficiently high mean daily temperature, so that their results give a daily range of one degree only, instead of a range of two and a half or even three degrees, as may frequently be found in health.

A diurnal variation of temperature, sufficiently constant to cause a continuous elevation at and after mid-day, and a tendency to depression at and after midnight, undoubtedly exists. This has no direct or necessary relation to the hours of the day, but depends upon quite other causes indirectly related.

Rest lowers temperature; exertion raises it. Dr. Haughton has shown how every elevation of bodily temperature represents so much work done, so much force expended, so much waste; on the other hand, we may see how that every active employment in which we are engaged is accompanied by an elevation of temperature. Rise from a warm bed, dress in the cold air, or bathe in the coldest water, and half a degree Fahrenheit of temperature is gained; the day's duties will before long demand another half degree; out-door exercise still more. Thus it will rarely happen that a temperature of 99 degrees, even in the axilla, is not reached by noon.

Strong out-door exercise will cause an elevation of from one and a half to two degrees of temperature—a fact of which any one may convince himself by placing a self-registering thermometer under his arm during half-an-hour's brisk walk; in this way a temperature of 100 degrees will generally be obtained: this has hitherto been overlooked. Numerous observations, taken both in warm and in cold weather, not only show this, but that an internal temperature of 100 degrees is frequently, if not usually, attained, and is, therefore, within the limits of normal temperature.

The condition on which this high temperature is to be considered normal is, that it should not be long maintained. Age, constitution, health, and training, as well as outward circumstances, influence both the readiness with which this degree of organic heat is reached, and the readiness with which it subsides. Heat from exercise, when rapidly induced, will rapidly subside, rest following after short exertion. A fall of one degree of heat in half-an-hour, or of two degrees in one hour of rest, in this case, will readily follow. During more prolonged exercise or exposure, some moderation of temperature may be observed: perhaps the want of food begins to tell, though a good meal helps to lower the temperature-disturbance, and so favours the coming on of sleep. After this elevation of temperature, there is generally a greater tendency to subsidence. Sometimes the disturbance occasioned may be so great or so prolonged that neither the food nor the rest needful to repair the waste occasioned will at once exert their powerful aid in lowering temperature; and, consequently, one is either too tired to sleep, or has to pay a heavier penalty for over-exertion.

Exercise and activity raise temperature; rest and repose are the most effective agents in lowering it. Rest is most perfect during sleep, and then the greatest subsidence of temperature is found. Fatigue, if not extreme, conduces to rest; hence, probably, the reason why the evening temperature of the body is generally lower than the morning. It has been said that sleep does not lower the temperature. Rest at any part of the day, mere rest of body, will allow a subsidence of temperature almost to the degree found at night or after sleep, and this even while active mental processes are being conducted in quiet: nor does the occurrence of a short sleep in the course of an afternoon's rest seem to make much difference in the degree to which the temperature is lowered; so that though the lowest temperature is usually found at night and during sleep, the one may have but an indirect dependence upon the other. It is to be remembered that while during bodily exertion the respiratory function is very active, during sleep it is reduced far below the ordinary rate, and that mental preoccupation will often interfere with full and complete respiratory efforts. The relation between sleep and a lowering of temperature is certainly a close one; they have this mutual reaction—sleep favours the subsidence of temperature, and a certain subsidence of temperature seems to be a necessary preliminary to good sleep.

* *Cours de la Faculté*. Paris: 1841. Andral gives the lower limit as 35° centigrade = 95° Fahrenheit; the higher as 42° centigrade = 108° Fahrenheit nearly.

RECOLLECTIONS OF WORK IN AN AMBULANCE.

By WILLIAM MAC CORMAC, F.R.C.S.,
Surgeon to the General Hospital, Belfast.

VII.

I HAVE now to speak of resections as performed in the upper extremity. There were but two of the shoulder, eleven of the elbow, and none of the wrist. There was one remarkable case (to be given afterwards in detail) in which I performed resection of both the shoulder and the elbow joints in the same arm. A reference to the table will show the proportion of secondary to primary resections, and the deaths after each, which was much greater in the former than in the latter type of operation. Of the six primary elbow excisions, only two died; while of five secondary, so many as four perished. Resection was performed whenever practicable in injuries of the upper extremity. Amputation was never practised for a gunshot injury of the elbow or shoulder which would admit of excision of the injured joint. On the whole, the results may be pronounced satisfactory. I may, however, quote the particulars of the case of excision of the shoulder, which proved fatal, as an example of how our very best operations died under the pyæmic influence.

CASE XL.—Gaugéard, a nice young fellow, a *sous-lieutenant* in the 53rd Regiment of the Line, was wounded at three o'clock on September 1st, near Balan. The ball passed right through the head of the humerus from before, backwards. The head and three inches of the shaft of the bone were removed by means of a single anterior incision, and carbolic dressings were somewhat carefully applied. On September 3rd, the wound was dressed. It was almost all healed. Some serous fluid flowed from it. On September 9th, he was going on extremely well. He had no fever nor other general symptoms at any time. So runs my brief report. In short, the patient was so far convalescent as to be walking about with his arm in a sling, quite happy and comfortable at the thought of his arm being preserved to him. He was regarded by every one as quite convalescent, when, on the 14th, we noticed beads of sweat upon his face—he had complained of feeling hot before; there was no distinct rigor, but the sweating was very profuse. The skin soon assumed a sallow tint; his eyes became sunken. An attack of secondary hæmorrhage, the prelude to the fatal issue, took place on September 21st; and, on September 22nd, he died. Thus in a short ten days was one of our best and most promising cases killed off; and this is an example of what happened in a dozen similar instances.

CASE XLI.—Gallerand, *Maréchal du Logis* 7th Artillery Corps, was wounded on September 1st by a ball which entered behind the left shoulder-joint, and, passing directly forwards, smashed the head of the humerus, and emerged in front. He was only sent to Asfeld on September 12th. On September 14th, I excised the head of the bone, just as in the last case, by a single anterior incision. Up till September 29th, the patient got on famously, and then symptoms threatening pyæmia made their appearance. He also had sweatings, but no marked shiver. Fortunately these unfavourable appearances soon abated, and Gallerand made an excellent recovery. He left the Hospital perfectly convalescent on October 6th.

I am very sceptical as to any treatment being of much avail in well-marked pyæmia. Some time ago, I had frequent opportunities of trying Professor Polli's antizymotic treatment by the bisulphites of soda or magnesia. It always appeared to me to do a good deal of harm, and never much, if any, good. Diarrhœa was induced by it, as well as vomiting, the abdomen swelled up with flatulence, and food was sooner refused. Perhaps the internal administration or inhalation of carbolic



Fig. 2.—Professor Esmarch's Splint for Resection of the Wrist.

acid, which in the hands of some would seem to prove an universal panacea, might succeed better. It would be well worth a trial, although I did not feel disposed to accord it one at Asfeld. For myself, I can place but little reliance in anything save quinine and opium, and plenty

of fresh air, and not much even in them, for staying the progress of pyæmic poisoning. When once developed, it is very rarely checked.

We had, as before mentioned, no cases of excision of the wrist-joint, but I may take this opportunity of mentioning the excellent apparatus of Professor Esmarch, who has treated cases of resection of the wrist with great success. The hand and arm are placed in a prone or semi-prone position on the splint (fig. 2), whose form is such as to leave the wrist exposed, and easy to be got at for the application of dressings. The whole apparatus *en fonction* consisting of a suspending rod, a plaster of Paris bandage, and the splint, is represented in fig. 3, and

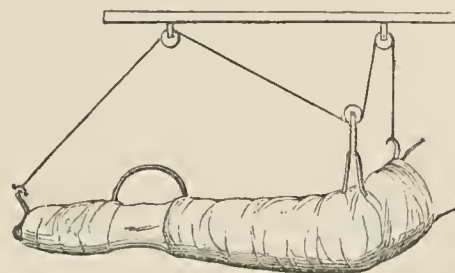


Fig. 3.—The Splint applied.

the facility with which the patient could move about in bed, or adjust the position of his arm, is at once perceived. Dr. Patrick Heron Watson's anterior splint for resection of the knee-joint, and the American anterior fracture-splints, are similar in principle and application.

A modification of this apparatus might readily be applied in cases of resection of the elbow. But, unless for purposes of transport, it is not often necessary, nor even, I consider, desirable, to apply splints of any kind to excisions of this joint. The after purpose of the operation is to secure free motion in the new articulation, and the arm and elbow can usually be adequately and well supported by pillows. I myself never used any form of splint after excision of the elbow, and I found that great comfort to the patient, and great facility in applying new dressings, were thereby secured.

Besides those cases operated upon in Hospital, several cases of resection already performed were sent to us, and in some of these a very rough and ready method had been adopted for entering the wounded joint. The operator had cut transversely across the back of the elbow from one side of the limb to the other, sacrificing the ulnar nerve, of course, and making a huge unsightly wound. Pott's plan of a single longitudinal incision was the method I adopted in all save one instance, when I used the H-shaped cut, on account of the nature of the wound. The single incision may cause the operation to be perhaps somewhat more tedious, but it gives plenty of room, inflicts less damage on the soft parts, and the cicatrix is more satisfactory than after any other operation. This incision should be made towards the inner border of the olecranon, and, by keeping the edge of the knife close to the bone, the ulnar nerve need be neither exposed nor endangered. In several instances, amputation was performed for injuries of the elbow, but then the injuries were so extensive as to preclude the idea of saving the limb, and had been ordinarily produced by the explosion of a shell.

The number of cases of penetrating wound of the elbow under our care was very considerable. In the great majority, resection was performed usually at once, as the secondary operations did so very badly. In a few cases of elbow wounds, for one reason or another, expectant surgery received a trial.

CASE XLII is an example of recovery from penetrating wound of the elbow-joint without operation. Vivien was wounded by a ball which entered half way between the internal condyle and the olecranon process of the left arm, and emerged in front of the articulation over the head of the radius. The joint was therefore traversed from behind, forwards and outwards, and slightly downwards. An examination revealed but a small amount of damage. The patient was a young healthy man, and it was decided to give him the chance of getting better without operation. The case turned out in every way satisfactory, and he left the hospital convalescent.

CASE XLIII.—Auguste Soitel, 89th Regiment of the Line, presented another example of penetrating wound of the elbow, in which recovery took place. He was struck on September 1st by a ball which entered the posterior surface of the elbow, just over the head of the radius, breaking the bone. The ball emerged, after traversing the joint, a little above the internal condyle. No particular symptoms were manifested, and the man soon left hospital.

The following may be taken as an example of the cases sent into us from without, in which an operation for excision of the elbow had previously been performed.

CASE XLIV.—Louis Deroy was wounded on September 1st by a ball in the right elbow-joint. An operation had been performed in a Prussian field ambulance, on September 3rd, for removal of the injured joint by means of a single transverse incision across the back of the articulation. The patient was admitted to Asfeld on September 5th. The case did not get on well; and, on September 20th, the arm was amputated most skilfully by Dr. Wyman, and the patient eventually recovered, leaving Hospital on October 6th.

CASE XLIV.—Fauvartel was operated upon in a manner precisely similar for a shell wound of the elbow; but in his case a fatal result ensued from exhaustion, without further operative interference.

CASE XLV deserves special mention, as it is of unusual interest, and, I believe, unique in operative surgery. Louis St. Aubin belonged to the 3rd Chasseurs d'Afrique, a corps which has distinguished itself for extreme gallantry in every action in which it has been engaged. This young man, only twenty-three years of age, had his horse shot under him after receiving a bayonet thrust on his left cheek, the only one I saw amongst all the cases that came under my notice. He then got separated from his comrades. They had been in action all day. It was the fatal first of September, and the French troops were routed and flying towards Sedan. St. Aubin, though wounded and alone, had no notion of turning his back upon the enemy; he provided himself with one of the numerous Chassepôts lying about, and shortly after fell in with a small party of marines, a corps who have proved themselves amongst the very finest troops in the French army. These brave fellows, a mere handful, started forward to meet the enemy. But they had not gone far before the deadly fire from the Prussian batteries laid several of them low, and amongst the rest St. Aubin, who was struck by the fragments of an exploding shell on the right arm, which severely wounded both the shoulder and elbow joints. He came under our care on September 12th, having not in the interval received any special treatment. On examination, we found both the head of the humerus and the elbow joint extensively shattered. The soft parts were in both regions lacerated and contused. The injuries were so extensive that amputation seemed almost imperative, but I determined to attempt to save the limb if the extent of the deeper seated injury would at all admit of it. The poor fellow himself would not consent, all we could do, to take chloroform, so much afraid was he we might take advantage of his being asleep to amputate his arm, a mutilation which, under any circumstances, he refused to hear of. The operation had therefore to be undertaken without it; and, on September 14th, I proceeded to excise the shoulder-joint. It was only needful to extend the original wound, which had torn the deltoid muscle on its outer and anterior aspect, and through this I removed, in large fragments, nearly three inches of the upper end of the humerus. The operation was necessarily a protracted one, and the brave fellow bore it throughout, including the sawing of the bone, without a single murmur. I never saw such powers of endurance. It was, however, too much for my courage to inflict so much needless suffering; and, after faithfully promising to him that I would not amputate his arm, I succeeded, almost having to use violence, in making him inhale chloroform, before I attacked the elbow. I found the injury was here chiefly confined to the radius, and the ulna, which was a good deal split up. I cut off a thin slice of the condyloid end of the humerus, and cut out the fractured portions of the bones of the forearm. The original wound was here, also, on the back of the joint, in such a position as to afford of its being utilised in making the preliminary incision. The operation completed, the patient was removed to bed, and the injured arm laid carefully on a pillow. Antiseptic dressings and careful syringing of the wounds constituted the after treatment. St. Aubin's courage never flagged; he never complained. "J'ai du courage, moi," he used to exclaim; and when he was at the very worst, he would always assert "J'en guerirai."

Up till September 23rd, he got on well, and then pyæmic symptoms declared themselves. His temperature rose very high; his skin was yellow; he had rigors, and was delirious for a time. Then a deep abscess formed high up in the left side of the neck. I thought he was going the road so many others were travelling just about this date. However, he rallied, as such a brave fellow deserved to do; the abscess was opened, and a quantity of unhealthy pus discharged; the wounds began to look extremely well, and his spirits and appetite regained their wonted sway.

On October 8th, he was transferred, with the few other remaining patients of the Caserne d'Asfeld, to the Dutch ambulance just then arrived in Sedan. The Dutch surgeon, to whose care he was entrusted, courteously communicated to me the report of his condition up to November 21st. He says: "St. Aubin does not make much progress. The wound of the shoulder is healing up quite well, but at the elbow large abscesses have formed, which have undermined his constitution considerably. However, during the last few days he was improving

again. He is now in the Civil Hospital at Sedan, under the care of Dr. Duplessy, Surgeon-in-Chief of the Military Hospitals."

A short time since, I had the satisfaction of receiving a letter dictated by the poor fellow himself, in which he says, with grateful expressions:—"J'espérais écrire moi même, mais mon bras est plus malade depuis votre départ. Il est très enflé, de plus il s'est formé au coude quelques abcès qui me font souffrir, cependant j'ose vous le dire, Monsieur, je ne me laisse pas abattre, j'ai du courage. Si vous étiez là j'en aurais davantage. J'ai bon appetit, je n'ai qu'à me louer des soins dont je suis l'objet, je me trouve bien à l'hôpital."

It is to be hoped, for many reasons, that this brave young Frenchman will completely recover; and it will become an interesting question to learn what amount of usefulness an arm, from which both the elbow and the shoulder joints have been excised, will possess. I trust I shall be in a position, at some future time, satisfactorily to solve the problem.

CASE OF A RARE FORM OF PULMONARY HÆMORRHAGE: WITH BRIEF REMARKS.

By J. B. BRADBURY, M.D., M.R.C.P.Lond.,
Physician to Addenbrooke's Hospital, Cambridge.

THE following case appears, owing to its rarity, to be worthy of record; and I am indebted to the kindness of Dr. Paget for allowing its publication.

J. S., aged 52, married, brickmaker, residing at Wisbech, was admitted into Addenbrooke's Hospital on November 30th, 1870, under the care of Dr. Paget. The patient was rather emaciated, and stated that he had been ill for four months, complaining of symptoms chiefly referable to the stomach; viz., a capricious appetite and intense pain after eating. He had had slight nausea, but had never vomited either his food or any blood. There was diffused tenderness in the epigastrium. He also complained of great pain across his loins. He had no cough or other symptoms indicative of disease of his lungs, and there was no abnormal cardiac murmur. The urine did not contain albumen. Ten days after admission, about an hour after taking his tea, *florid* blood suddenly commenced to flow from his mouth in quantities so considerable that a chamber-utensil was soon filled. During the bleeding, he had a violent fit of coughing. The hæmorrhage could not be controlled, and the patient died within twenty minutes from syncope.

I could not ascertain that the patient had suffered from any contusion or concussion of the thorax.

Autopsy.—The stomach contained a large quantity of black blood, but there was no evidence of any organic disease of this organ or of the duodenum. The mucus and blood clung to the stomach very tenaciously; and one spot, rather larger than a crown-piece, was tinged of a dark-green colour. (This appearance was probably due to some tincture of the perchloride of iron administered by the house-surgeon with a view of checking the hæmorrhage.) The heart was about normal in size, firmly contracted, and all its cavities were empty. The left ventricle was slightly hypertrophied, but the right was not so. The valves of the heart were all quite healthy, but the aorta was atheromatous. The base of the left lung, on being incised, was found to be infiltrated with blood; and at one point the texture of the lung was completely destroyed, and a cavity of the size of a hen's egg formed, which contained liquid and coagulated blood. In other respects, the lungs appeared quite healthy, being free from tubercles. The kidneys, liver, and spleen, appeared free from disease.

REMARKS.—The form of pulmonary apoplexy described above is, according to Niemeyer, exceedingly rare (*vide* Niemeyer's *Text Book of Practical Medicine*, seventh edition, translated by Drs. Humphreys and Hackley, vol. i, p. 162). I can find no mention of it in Wilks, or other English works on pathological anatomy. I am inclined to agree with Niemeyer, that the cause of the profuse hæmorrhage in such cases is atheromatous degeneration of the pulmonary artery, inducing its aneurismal dilation and final rupture. This view of the nature of the disease is to some extent supported by the considerable atheromatous deposit in the aorta in this case. Such instances of profuse hæmoptysis are, according to the authority above quoted, almost always rapidly fatal. The blood found in the stomach after death had, doubtless, been swallowed by the patient.

I am aware that cases of extensive and suddenly fatal hæmoptysis, due to rupture of an aneurism of a branch of the pulmonary artery in its passage through a vomica, have been recorded by Drs. Cotton, Quain, and others (*vide* BRITISH MEDICAL JOURNAL, Oct. 24th, 1868; and Pathological Society's *Transactions*, vol. xvii, p. 79); but the above

case seems to be altogether of a different nature, as no evidence of tubercular disease of the lungs existed.

The most curious circumstance connected with the case is the fact, that the patient's complaints were chiefly connected with the stomach; indeed, the symptoms were not unlike those of chronic ulcer of the stomach. The house-surgeon also thought, and not without some reason, that the hæmorrhage was from the stomach, although the fluid character of the blood and the cough certainly militated against that view. Dr. Paget had not an opportunity of seeing the case subsequently to the supervention of the hæmorrhage.

Cambridge, December 1870.

COD-LIVER OIL.

By J. M. WINN, M.D.,

Senior Physician to St. George's and St. James's Dispensary; late Resident Physician to Sussex House Lunatic Asylum; etc.

THE utility of cod-liver is so universally admitted, that it may seem idle to say anything more in its favour; nevertheless, its *modus operandi* is so imperfectly understood that I make no apology for offering a few remarks which have occurred to me whilst watching its effects on the various forms of hereditary disease that have lately come under my notice.

Some of our best writers on therapeutics attribute its efficacy chiefly if not solely to its dietetic properties; in fact, they regard it rather as an article of food than as a medicine: they apparently come to this conclusion principally on account of the very trifling quantity of iodine and bromine found in the oil—these amount to only .05 per cent.; and it is, indeed, scarcely to be supposed that so small a proportion of these elements could have any appreciable effect. However this may be, the marvellous curative power of cod-liver oil cannot be explained by any theory based on its chemical constituents. Its effects, as an active remedy, are unmistakable; and it seems to have especial power in arresting the morbid force which obtains in phthisis, scrofula, skin-disease, and other hereditary affections.*

The prevalent notion that cod-liver oil acts chiefly as a nourishing article of food, has often led to the neglect of its use in cases where the disease is not attended with loss of fat and muscle, and it has also led to its administration in unnecessarily large and nauseating doses. Experience, however, has shown that very small quantities suffice to produce beneficial results. I never myself prescribe more than one drachm for a dose.

The following example is a remarkable illustration of the value of cod-liver oil in a case that appeared, at first sight, an unpromising one for its use.

A child, six years and a half old, was brought to me dreadfully disfigured by an eruption of eczema impetiginodes over the forehead, nose, lips, and left cheek. She was one of the largest and most robust-looking children I ever saw, and her muscles were firm and well developed. She was the daughter of Jewish parents; and I was informed that her brothers and sisters were all on the same large scale. Attributing the disease in a great measure to a plethoric condition, I prescribed aperients and alkalies; and as she was in the habit of eating very heartily of animal food, I reduced her allowance of meat. After continuing this plan for a fortnight, there was no amendment: I then changed the treatment, and ordered one small teaspoonful of cod-liver oil three times a day. The effect was immediate, and in about a fortnight the eruption had disappeared, and the child was quite well in every respect.

A case which I am now attending will serve to show that all the beneficial effects of cod-liver oil may be produced by the use of very small quantities, even on full-grown persons of very large proportions. The patient is an ex-Life-Guardsman, above six feet in height, suffering from tubercular disease. He appeared to be in a sinking state, but has now rallied far beyond my expectation from the use only of one drachm of the oil three times a day.

From these and similar instances of constant occurrence, I infer that cod-liver oil does not act as a mere article of food; neither is it a simple tonic, like iron or gentian, but that it has a specific virtue of its own—in short, I would suggest that cod-liver oil is to hereditary affections what quinine is to zymotic diseases.

Harley Street, December 20th, 1870.

* On the principle that cancer and struma are mutually convertible, I have lately been testing the effects of cod-liver oil in cases of cancer, but have not tried it long enough to arrive at any positive result.

CLINICAL MEMORANDA.

OBSCURER DISEASE OF THE CÆCUM.

I HAVE recently met with a case which bore a close resemblance to those described under the above title, by Dr. Chambers, in the last number of the JOURNAL; and, on account of the peculiar nature of this affection, a few details may be interesting.

The diagnosis between a tumefaction arising either from a fæcal collection or an organic tumour, and that from the affection alluded to, will probably not be very difficult; but it is a much more puzzling matter when we come to decide whether the swelling be due to the formation of an abscess in the perityphlitic tissue, or to the much less serious affection described by Dr. Chambers. Of this difficulty the following case is, I think, a good illustration.

A gentleman of middle age had been travelling a good deal, exposed to cold, and more or less "out of sorts" for three weeks. Some days before I saw him, he began to complain of tumefaction and pain in the right iliac region, the pain sometimes extending down the thigh and into the testicle of the same side. There was no history of constipation; and the bowels had been freely acted on by castor-oil. He had at this time nausea and a furred tongue; the pulse was 88, and temperature 100.8 deg. The next day, he complained of having had a very restless night, and also of more pain at the seat of swelling; the pulse had risen slightly; and the temperature was 101.8 deg. He was ordered to have a warm hip-bath and a chloral draught at bedtime. From the combined effect of these he experienced much relief; he slept soundly, and awoke, as he said himself, "altogether better." When I saw him in the afternoon, the iliac swelling had decreased; pressure there was much better borne; the bowels had acted naturally; and the temperature had fallen to 96.6 deg.; it remained between this point and 97 for five days (time of observation, 4.30 P.M.), except on one occasion, when, during spontaneous free action of the bowels, it rose to 98.8. During this time of low temperature, the swelling and pain gradually subsided, and convalescence proceeded without a relapse; quinine and iron being the remedies used. In this case, up to the time of the sudden improvement and fall of the temperature, I certainly feared the formation of an abscess. Subsequently, I thought it must have been due to a fæcal accumulation; though the absence of any history of constipation, the high temperature, and the character of the stools, always rendered this explanation unsatisfactory to me. Since the perusal of Dr. Chambers's communication, I am inclined to look upon this curious affection as being of the nature described by him.

Hull, January 9th, 1871.

GEORGE F. ELLIOTT, M.D.

EPILEPTIC MANIA CHECKED BY CHLORAL HYDRATE.

THE patient was a retired publican, 60 years of age, rather given to drink. She had suffered from epilepsy for very many years—generally the *petit mal*, which attacked her in her sleep. She had only had three attacks of the *grand mal* before the present one. I saw her only in this last and the last but one; this latter occurred twenty months since. She was universally convulsed, insensible, and bit her tongue. The convulsions lasted about an hour and a half. She was maniacal and sleepless for sixty hours; and drugs had no effect on her.

I was called to see her on December 18th, at 11 P.M. She had been in perfect health up to 5 P.M., when she complained of headache and went early to bed, quite sober. At 10.30 P.M., when asleep, she was suddenly convulsed; and I saw her at 11 P.M. She was lying on her back; the lips and eyelids were half open, the lips drawn to the left side. She had clonic spasms of all her limbs, most marked on the left side. The conjunctiva were insensible. She continued in this state till midnight, when she became partially sensible, and I gave her a draught containing twenty-five grains of chloral hydrate. She soon fell asleep, and slept soundly till morning, when she was sane, and only complained of weakness. She is now (Dec. 22) well.

This may be contrasted with the case of a man who in a fight received a fall, and has since (fourteen days) been suffering from pain in his head and complete loss of the use of words. He was sleepless for the first few nights; but I found that chloral, instead of giving him rest, made him restless and excited, so that, after repeated trials, it had to be given up. There is no external injury to his head, but he cannot express himself at all correctly. He can say words, but they simply escape from him without his having any control over what may come. He cannot read aloud, but understands to some extent the power of words, and can tell if they be read.

Alston, Cumberland.

GEO. H. SAVAGE, M.D. Lond.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN
THE HOSPITALS OF GREAT BRITAIN.

NOTES ON THE TREATMENT OF HABITUAL CONSTIPATION AT THE LONDON HOSPITALS.

ST. GEORGE'S HOSPITAL.—In the treatment of obstinate constipation, Dr. Fuller lays especial stress on the management of the routine of his patient's daily life. His impression is, that in the majority of instances the constipation originates in a neglect to attend to the calls of nature, whereby the bowel ultimately becomes insensible to its natural stimulus. Therefore he insists, as preliminary to all treatment, that the patient shall go to the water-closet daily at a stated hour, and shall remain there with his mind directed solely to the object of his visit for at least five minutes; there being no doubt, in Dr. Fuller's mind, that any diversion of the thought tends in many instances to diminish or draw off the nervous influence which would have sufficed for defecation if the mind had been directed solely to the act. This being strongly insisted on, Dr. Fuller is guided in the choice of his remedies by the result of his inquiries in each individual case. If the tongue be clean and not unduly red, and there be no apparent derangement of digestion, he ordinarily suspects inactivity of the large bowel, and orders an enema to be used once a week, prescribes a pill containing aloes and nux vomica to be taken twice a day before meals, and advises the use of brown bread. If the secretion be unduly pale or unduly dark-coloured, indicating inactivity or derangement of the liver, he adds to the pill a small dose of podophylline, or prescribes a pill to be taken occasionally, containing two grains of calomel and a grain of colchicum, both of which agents appear to him to exercise a stimulating influence on the lower bowel. If, on the other hand, the lower bowel appear to be acting freely—in which case the enema will prove to be of little or no service—and if, at the same time, the tongue be red and possibly chapped, indicating an unhealthy and congested condition of the mucous membrane, Dr. Fuller prescribes a dose of Pulna, or some other saline aperient water, before breakfast, and calls to his aid a wet compress on the abdomen. Again, if the lower bowel be acting freely, but the tongue, instead of being unduly red, be pale and flabby, he prefers a pill two or three times a day containing iron, aloes, rhubarb, and nux vomica; and, if there be much tendency to flatus and spasm, he adds to this pill a small dose of belladonna. In some of these cases he has found electricity useful, whether in the form of a strong continuous current applied for a short time daily, or in that of a Pulvermacher's chain, worn constantly day and night. But in many instances of constipation the fault appears to Dr. Fuller to lie in inactivity of the liver and of the secreting apparatus of the digestive organs, rather than in mere torpidity of the muscular coat of the bowel. These cases are characterised by a coated tongue, a foul breath, congestion and yellowness of the conjunctiva, and a tendency to headache and occasional nausea. In these cases, the secret of successful treatment lies in a proper regulation of the diet, and on the taking of sufficient active bodily exercise. Abstinence from fatty and saccharine matters, together with a diminution in the daily allowance of alcohol: a diet in which green vegetables and fruit play a conspicuous part, together with active exercise and the occasional use of a Turkish bath, will generally suffice to rectify this form of constipation. The drugs most serviceable for its relief are rhubarb, colocynth, scammony, and podophyllin, combined, if necessary, with a twelfth of a minim of croton oil, and occasionally a dose of calomel; but these are only temporary expedients for the relief of a condition which is clearly induced by excess in eating and drinking, improper food, or inactive habits, and which can be easily counteracted by careful attention to the points above mentioned.

In cases of extreme constipation, terminating in temporary obstruction of the bowels, Dr. Fuller gives two pills composed of equal parts of scammony, calomel, and colocynth, to which he adds a minim of croton oil. After these have been taken about two hours, he puts the patient into a hot bath and administers a copious enema of warm water; and, if that fail, he gives an enema containing an ounce of turpentine and an ounce of castor-oil. If this prove ineffectual, he follows the pills by a senna draught or a full dose of castor-oil, and then gives an effervescing saline every three hours, containing a drachm of sulphate of magnesia. If much sickness exist, and the pills be rejected or do not act, he gives ten grains of calomel in powder and applies a mustard-poultice to the epigastrium, and then repeats the effervescing saline

and sulphate of magnesia. This treatment, however, is applicable only to extreme constipation, not to obstruction of the bowel.

KING'S COLLEGE HOSPITAL.—With reference to the treatment of habitual constipation, Dr. George Johnson remarks that, with some persons, constipation is habitual, without being attended with suffering or inconvenience. In some subjects, an action of the bowels every second, third, or fourth day, is as regular a habit as in others is a daily evacuation after breakfast. When constipation is not attended with obvious suffering, medicinal treatment is of doubtful advantage; and in all cases it is better, if possible, to promote a regular action of the bowels by daily active exercise either on foot or on horseback, and by a carefully regulated diet, including a sufficient proportion of vegetables, than by the employment of medicines. With our present knowledge of the close relationship between respiration and the secretion of bile and urine, few will deny that the free respiration of oxygen, which active exercise insures, is a better cholagogue than blue pill. With regard to the use of aperients for habitual costiveness, as a rule saline aperients are to be avoided; and the daily or frequent administration of a gentle aperient is better than giving occasional drastic doses of stronger drugs. The combination of a tonic with an aperient is often very efficacious; and, amongst tonics for this purpose, the nux vomica is one of the most useful. Half a grain of the extract may be given with a daily dose of compound rhubarb pill, or pilula aloës Socotrinæ (P.B.) The dose of the pill is to be determined only by experiment in each case. The combination of the tonic extract with the laxative should be given either with a late dinner or at bed-time. In anæmic subjects, the addition of iron to the aperient is very efficacious, and for this purpose the pilula aloës et ferri of the *Pharmacopœia* is convenient. When a lodgment of feces in the colon is the cause of obstruction, enemata given by means of a long tube are obviously the best means to be employed. In all cases of obstinate constipation, the use of purgatives by the mouth requires much care and caution; their unguarded employment may irritate and inflame the bowel, and excite pain and vomiting. When obstruction of the bowels, from whatever cause arising, is associated with distension, pain and tenderness of the abdomen, and with frequent vomiting, the most suitable treatment, as a rule, with few exceptions, consists in giving every four or six hours, according to the urgency of the symptoms, from one-third to one grain of opium in pill, either by the mouth or rectum, with hot fomentations to the abdomen, and abstinence from all purgatives. Opium, in this class of cases, is often a life-saving remedy. Dr. Johnson has met with one remarkable case, in which opium, given to relieve the pain of a dry pleurisy, caused a fatal obstruction of the bowels. Obstinate constipation, distension of the abdomen, and vomiting, followed the relief of the pleuritic pain. After death, the descending colon was found greatly dilated, and its muscular walls thin. The immediate cause of the obstruction was atony of the muscular walls of the colon, and this had probably been increased by the opium. The patient was a gentleman about sixty years of age, seen in consultation with Mr. Paget and Dr. Waggett.

UNIVERSITY COLLEGE HOSPITAL.—Dr. Russell Reynolds, in treating cases of obstinate constipation, even when there has been stercoraceous vomiting and all ordinary means have failed, has sometimes succeeded in completely removing the obstruction by placing the patient under the full influence of chloroform, and when in that condition administering a copious injection of warm water.

CHARING CROSS HOSPITAL.—Dr. Julius Pollock thus treats habitual constipation. Diet should be carefully attended to, and consist of a free allowance of green vegetables, water-cresses, salads, fruit, etc., with good plain meat, fish, or game. Brown bread should be substituted for white, and all articles tending to confine the bowels, such as potatoes, farinaceous puddings, rice, etc., should be avoided. Plenty of fluid ought to be taken with the food, and a glass of cold water night and morning is often very useful. He believes many cases of constipation arise from the food being of a too solid or dry character. Dr. Pollock deprecates altogether the use of strong purgative medicines in these cases; and advises small doses of the compound rhubarb pill, say two or three grains taken at dinner; or the occasional use of five grains of compound aloes pill at bedtime; and possibly now and then an enema may be given with advantage. Want of tone in the muscular coat of the bowel is, he believes, a frequent source of habitual constipation, and therefore preparations of nux vomica, strychnine, steel, etc., are often very useful. Moderate exercise should be enjoined.

ST. MARY'S HOSPITAL.—Dr. Broadbent begins the treatment of obstinate constipation by unloading the lower bowel by means of enemata. When the rectum is packed with hard scybala, warm olive oil is, as he learnt from Mr. Paget, much the best medium for softening them down. In out-patient practice, enemata have usually to be dispensed with, the patients being unable to purchase the necessary instruments, and drugs and diet have to be relied upon alone. In all cases, with or without

the assistance of enemata, the medicinal treatment he employs is the administration of aloes usually in the form of pill with soap, in doses of ten grains of the mass taken daily after dinner. He never increases the dose, very rarely gives it more than once a day, but insists on regularity in taking it. Dr. Broadbent adds, at times, extract of belladonna, or extract of nux vomica (or strychnia), or sulphate of iron, or quinine, according to indications which need not be specified, trusting, however, mainly to the aloes and soap. When the dose above mentioned fails to induce action of the bowels, as is not uncommonly the case at the outset of the treatment, he orders one or two drachms of sulphate of magnesia with two grains of sulphate of iron, and five minims of dilute sulphuric acid, in an ounce to an ounce and a half of mint or dill water to be taken every morning; or sulphate of magnesia with ammonia and gentian once or twice a day. After a short time, the aid of the saline is usually no longer necessary; and later, the dose of aloes can be diminished, then it may be taken only on alternate days, and ultimately given up altogether. The diet is, of course, regulated, and the importance of a regular and patient attempt to empty the bowel at a certain definite time is insisted upon. A large cold water compress over the abdomen, and friction and kneading in the course of the colon, or one of Pulvermacher's chains, Dr. Broadbent has found useful accessories, the latter more particularly, in cases of hypochondriasis.

MIDDLESEX HOSPITAL. —Dr. John Murray deprecates the employment of purgation to relieve the bowels in habitual constipation—a method of procuring relief which is temporary, and followed in many cases by increased paralysis of the gut. The very habitualness of the affection alone seems to point to the conclusion that gradual means should be taken to meet it effectually. As a general rule, drugs ordinarily employed to produce purgation, if given frequently and in doses such as do not produce loose motions, are followed by beneficial results in habitual constipation. The value which any one of these different remedies possesses in the treatment of habitual constipation depends on the individual case to be treated. Careful selection is often necessary—more so than used to be bestowed by some practitioners—in the selection of a purgative. Speaking generally, the ordinary remedies employed by Dr. Murray are the liquor strychniæ or nux vomica: the former with iron, in debilitated persons, produces frequently marked benefit. The pilula aloës cum nuce vomica of the Middlesex Hospital *Pharmacopœia*, composed of a quarter of a grain of extract of nux vomica, half a grain to a grain of extract of socotrine aloes, and a grain of hyoscyamus, forms an excellent remedy in numerous cases of long-standing constipation. A pill composed of about two or three grains of compound rhubarb pill, and an equal quantity of compound assafoetida pill, taken daily, is generally followed by very good results, especially in flatulent constipation of stout persons. In many cases, belladonna taken in small doses is followed with the best results; and in urgent cases where it is found necessary to employ enemata, the addition to them of a grain or two grains of belladonna with a drop or two of oleum rutæ, is most valuable. Dr. Murray also uses largely an electuary, composed of sublimed sulphur, acid tartrate of potass, and senna—a combination which answers well in ordinary cases. Regularity and temperance in life, selected diet, and exercise, should be enjoined: they are of as much importance as all the pill masses in existence put together.

[The Notes on the Treatment of Habitual Constipation, published in our Hospital Reports last week (and continued in the present number), appear to have excited a good deal of interest. We shall still be happy to receive similar communications on the subject for insertion in the JOURNAL.—We shall shortly publish an abstract of a clinical lecture on this subject by Dr. Black of St. Bartholomew's Hospital.]

LEEDS GENERAL INFIRMARY.

ANKYLOSIS OF THE HIP-JOINT, WITH GREAT DISTORTION: SUBCUTANEOUS DIVISION OF NECK OF FEMUR.

(Under the care of Mr. JESSOP.)

THE following report will be especially interesting in connection with Mr. Adams's paper, which appeared in the JOURNAL of December 31st.

Margaret R., aged 22, came to the Infirmary on the 1st of August, 1870, seeking relief of the deformity and great inconvenience attendant upon complete fixity of the right hip-joint, in such a position that the femur formed with the trunk an angle somewhat more open than a right angle. She walked in a crouching attitude, preferring that mode of progression to the employment of crutches. Her complaint was stated to have originated in an attack of rheumatic fever three years ago, in which the main suffering had fallen upon the right hip and knee. All the joints had recovered completely with the exception of the right hip, which, having gone through a long process of medical treatment, including repeated blisterings, had at length become freed of active disease, but firmly fastened in the position mentioned above.

In the hope that the ankylosis might prove to be due to fibrous bands of adhesion, which would yield to forcible extension, Mr. Jessop placed the woman fully under the influence of chloroform, and, with the help of assistants, applied as much weight upon the pelvis and femur as it seemed likely the latter would bear without breaking. When it became clear that the case was one of firm bony ankylosis, it was determined to adopt the ingenious method of treatment recently devised by Mr. W. Adams.

Accordingly, on the 25th August—having previously, in the absence of any published description of the details of the operation, experimented upon the dead subject, with the view of arriving at the best mode of reaching and acting upon the part to be divided—Mr. Jessop proceeded to saw through the neck of the femur. The long narrow knife, which, with the saw, had been devised for the purpose by Mr. Adams, was introduced at a spot three-quarters of an inch behind the great trochanter, and at an equal distance below the posterior superior angle of the same process, and was pushed straight forwards until its point impinged upon the neck of the femur, near its upper border, immediately behind the head. The point of the knife was then carried forward over the neck, so as to clear a passage for the saw, which, with the exercise of some force, was introduced by the side of the knife, until its serrated blade could be felt to rest upon the bared bone. The knife was then withdrawn, and the sawing process commenced. In from ten to twelve minutes, when from the direction of the handle of the saw it was thought that the blade must have all but completed the severance, an attempt to extend the limb was made, and the few remaining fibres of the bone readily gave way with an audible snap. The limb could now be moved with the utmost freedom in all directions, and a rough grating crepitus was distinctly heard as well as felt at each movement.* During the operation, a few drachms of dark venous blood escaped from the puncture. The patient was simply put to bed without any mechanical restraint upon the limb. At each subsequent visit, she complained of some pain both in the hip and knee.

On September 8th—a fortnight having elapsed since the operation—free passive motion of the joint was commenced; and this was repeated daily, sometimes twice daily, during her entire stay in the Hospital; she was, moreover, encouraged to move the leg frequently and freely. During any movement of the joint she stated, if asked, that she had pain in both hip and knee; but there was nothing to indicate that this was at all severe. On September 24th, she was ordered to move about the ward on crutches, and frequently to swing the limb backwards and forwards; and as, when standing upright, the heel was raised, the anterior part of the foot only reaching the floor, a thick-soled and high-heeled boot was ordered for her.

On October 21st, she was sent to the Convalescent Hospital at Cookridge for three weeks. At this time she could extend and flex the limb readily, but still complained of pain in both hip and knee during any movement. She was able to place the foot on the floor, but could not bear any appreciable weight upon it. Crepitus was still distinct. Through the kindness of Mr. Seaton, the honorary surgeon to the Cookridge Hospital, daily movements of the joint were faithfully continued. When she returned to the Infirmary on the 11th November, a marked improvement had taken place. The range of motion in the new joint was not diminished, and her command over the limb had increased. She could now place the foot somewhat firmly on the ground, and could distinctly bear a little weight upon it. The attempt to use it in progression gave rise to some pain, but this did not prevent her from persevering. The crepitus was now less grating, and gave one the impression that the surfaces in contact were neither rough nor hard.

During the remainder of her stay in the Infirmary, which terminated on the 6th December—nearly fifteen weeks from the time of operation—the improvement continued. She became able to get along from bed to bed, without the use of a crutch or stick, in a half hop, half walk, and quite erect. It was calculated that she was able to bear from one-fourth to one-third of her weight upon the limb. By measurement, the femur was an inch and a half shorter than the sound one.†

* It may here be stated that Professor Lister's rules for accomplishing the exclusion of septic germs were fully carried out. The hands of the operator, the skin of the part to be operated upon, and the instruments to be employed, were all carefully smeared with carbolic oil (1 in 5). Throughout the entire operation, a very efficient supply of a saturated watery solution of carbolic acid was directed upon the wound from two of Dr. Richardson's ether-spray producers; and immediately upon the completion of the operation, the wound and neighbouring parts were enveloped in carbolic lac-plaster, which was secured in its position by means of a pad of cotton wool and a roller. On the following day, and again on the 27th of August, the dressing was renewed under the protection of the spray. When examined on the 28th, at the expiration of the third day after the operation, the wound was found to have quite healed; and as neither swelling nor infiltration of tissue could be discovered, all dressing was discontinued.

† The ultimate result of this case shall hereafter be published.

MEATH HOSPITAL, DUBLIN.

CASE OF MALIGNANT DISEASE OF THE LIVER AND STOMACH:
AUTOPSY.

(Under the care of Dr. STOKES.)

FOR the notes of this case we are indebted to Mr. W. Reed Murphy.

John W., aged 45, a shoemaker, was admitted into the Meath Hospital on December 12th, 1870. He was a man of rather temperate habits, and had been generally healthy until late in August last, when he began to suffer from lowness of spirits and a feeling of general illness, without any particular local pain or distress. He gradually lost his appetite, and began to lose flesh and to sweat at night. He continued to grow gradually worse; and in September last, one day while dressing, he discovered for the first time what he described as a hard lump in the centre of his epigastrium. Soon after this he began to suffer occasionally from severe pain in the left shoulder; he described this pain as shooting from the lump of the shoulder. Later on, he suffered from pain in the right shoulder, but this was never so severe as that in the left. He had never had a feeling as of weight upon the shoulder. He had had several sharp attacks of diarrhoea, in the intervals between which his bowels were greatly confined. Early in October, his abdomen began to swell, and soon afterwards his feet: this swelling gradually increased until his admission, when his condition was as follows. His face, thorax, and upper extremities, were exceedingly emaciated, and presented a strong and curious contrast to his abdomen and lower extremities, which were very oedematous. The abdomen was greatly distended with fluid; there was also considerable oedema of the abdomen, which ended rather abruptly about the level of the ensiform cartilage. There was no oedema over the upper part of the body. The face was very thin, the eyes sunken, but the expression was not markedly that said to be characteristic of malignant disease. The feeling of fluctuation in the abdomen was remarkably distinct. Upon percussion, it was universally tympanitic, except over a region where by ballottement and careful pressure an evidently greatly enlarged and nodulated liver could be felt. The veins over this region were very varicose, and they evidently anastomosed with the mammary and intercostal veins. There were no varicose veins on the left side. There were two distinct hard-feeling tumours—one in the epigastrium, the other in and below the right hypochondrium, the connection between which, owing to the great ascites, was not easily traced. The man stated that the epigastric tumour was the first to appear; and, although closely questioned, said that he did not believe that its origin was in any way connected with the pressure constantly applied to that part owing to his trade—that of a shoemaker. He complained of very little pain, but much of the feeling of distension and of some dyspnoea. His bowels were confined; and the urine was rather scanty, of a specific gravity of 1.22; it contained no albumen or sugar, and no precipitate was found upon the addition of nitric acid. Tapping was performed in the usual situation upon December 17th, about an hour after breakfast, when about 50 ounces of a thin claret-and-water-coloured fluid were drawn off. All flow then ceased, although the feeling of fluctuation remained most distinct. The cannula was withdrawn and the wound dressed. He was somewhat relieved, but very weak. He was ordered a full opiate and twelve ounces of wine, also a diuretic mixture. The fluid was carefully examined by Dr. A. W. Foote. It was of specific gravity 1.12, albuminous; it contained a few blood-cells, but a large number of cells closely resembling lymph-cells. Dr. Foote gave it as his opinion that the omentum was adherent, and that a lacteal or vein had been tapped.

The man went on very well for some days, without any pain or symptom of peritonitis, until the 21st December, when severe darting pains in the tumour set in. He became rapidly very weak. Sudden and severe purging began on the night of the 22nd December, and he died unconscious in the early morning.

Before proceeding to the *post mortem* examination, the abdomen was tapped low down upon the right side, when more than two gallons of a fluid similar in appearance to the former was drawn off. The tumours in the abdomen now became very evident; they were found to be four in number. The epigastric and hypochondriac tumours stood prominently forwards; and below and on a plane much posterior were two smaller tumours. The abdomen was opened, by cutting carefully to one side of the wound made by the trocar; through which, on removing the dressing, a structure closely resembling an umbilical cord was found protruding about half an inch. On raising the abdominal wall and looking in, the inferior border of the small omentum was found slightly adherent to it. The right extremity was pushed through the opening made by the trocar, evidently plugging it. The four tumours consisted of large nodulated offsets from the liver, the largest of them being formed by the left lobe. The whole surface of the liver was

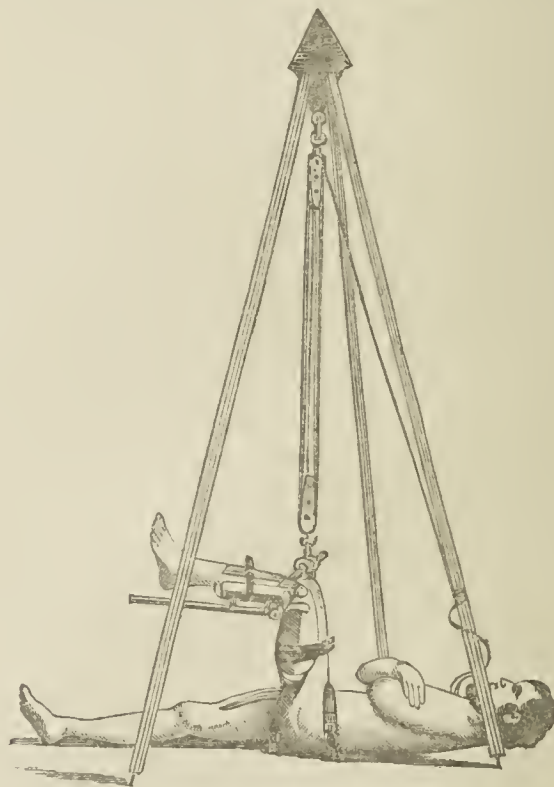
nodulated, and was a very fine specimen of encephaloid. None of the tubercles upon its surface were softened or cystic. Both the cava and vena porta were carefully examined, and were found quite patent and unaffected by the disease. The lesser curvature of the stomach, and for about two inches down upon its surface in front and behind, was one mass of gristly schirrhous; the greater curvature was unaffected, but dilated. The stomach was strongly adherent to the liver. Neither the pylorus nor the cardiac orifice was narrowed; but the interior of the lesser curvature and upper part was black, sloughy, and ulcerated; yet there was never a gastric symptom except loss of appetite. The mesenteric glands were not enlarged; the intestines were healthy; there were no deposits in the lungs.

REPORTS AND ANALYSES

IN

MEDICINE, SURGERY, DIETETICS, AND
THE ALLIED SCIENCES.TRIPOD APPARATUS FOR THE REDUCTION OF
DISLOCATIONS AT THE HIP.

THE woodcut below is copied from one given in Dr. Bigelow's (Massachusetts) excellent monograph on the *Hip-Joint*, and represents an apparatus devised for the purpose of angular extension. The pelvis is seen to be buckled to the floor; and the limb, flexed at the knee and hip, is suspended by cord and pulleys from the leathern cap which fits on the summit of the tripod. A transverse rod passes across the front of the knee through rings in the pair of angular splints. The projecting ends of this rod afford the means of effecting powerful rotation of the femur; and a similar rod, placed behind the leg and in its axis, supplies



the means of producing "another useful movement, called by the French *bascule* or tilt." By vertically raising this rod at its upper extremity, Dr. Bigelow holds that the head of the bone may be carried from the dorsum or pubes in the direction of the tuberosity. Dr. Bigelow is a strong advocate for the flexed position in the reduction of all dislocations at the hip, and writes of his ingenious tripod: "Although the need of this apparatus may be rare, it will prove occasionally efficient in reducing a luxation of long standing or complicated with fracture. At any rate, I cannot believe that the period is remote when longitudinal extension by pulleys to reduce a recent hip-luxation will be unheard of." We fully agree with the author as to the importance of the flexed position, and would suggest that the tripod part of his apparatus might easily be dispensed with in cases in which the roof of the room, or a doorway, affords a convenient beam for the reception of a strong hook. The rest might also be extemporised by any one who understood its principles.

APPARATUS FOR COMPRESSION OF THE SUBCLAVIAN ARTERY.

AMONGST the improved surgical instruments exhibited at the Annual Museum at Newcastle was an ingenious apparatus devised by Dr. Heath of that place, for effecting compression of the subclavian artery. It consists essentially of a pelvic metal girth, from which an upright bar passes, which is steadied by straps, and to which the rod carrying the compressor is adapted. It has, we believe, been used successfully. Dr. Heath, as is well known, is a warm advocate of the compression-plan of treatment, and has had some remarkably successful cases of compression under chloroform.

IMPROVED ARTIFICIAL LEG.

MR. KEMPNER of St. John Street, Westminster, has devised an ingenious form of artificial leg suitable for mid-thigh stumps. It is made of leather, with hinges, and is extremely light. Mr. Kempner has himself lost his leg, and necessity has been with him the mother of invention. He has taken great pains to discover the exact position at which the hinges should be placed to secure easy motion, and how the problem of combining lightness with strength might be best solved. We have seen him walk, kneel, etc., in his leather leg, and he does so with remarkable ease and quickness. His leg has also the advantage of being cheap; and we can strongly recommend a trial of it to all who need such help.

NEWNHAM'S CONDENSED MILK.

AN analysis of the condensed milk contained in one of Newnham's tins has furnished the following results.

Water ...	...	...	...	...	...	19.0
Caseine ...	...	...	...	...	...	10.0
Ash ...	...	...	...	...	...	2.0
Fat ...	...	...	...	...	...	69.0
Milk-sugar ...	...	...	...	...	...
Cane-sugar ...	...	...	...	...	...
						100.0

The water was determined by drying at 212 deg. Fahr. The caseine was determined directly, the result being verified by the employment of Wanklyn, Chapman, and Smith's ammonia process. The ash was, as usual, determined by ignition. There appeared to be about as much fat as caseine. From the analysis, it follows that the degree of condensation of Newnham's condensed milk is between three and four; that is to say, that one pound of the condensed milk contains the solid constituents of from three to four pounds of fresh milk.

THERAPEUTIC RECORD.

TRANSFUSION OF BLOOD IN POISONING BY CARBONIC OXIDE.—Professor Hüter of Greisswald related, at a meeting of the medical society of that place, a case of poisoning by carbonic oxide, in which he successfully employed transfusion of blood. The patient was a gentleman, aged 26, who had been exposed for four or five hours to the noxious gas, and was found insensible. Attempts to resuscitate him by means of artificial respiration, by compression of the thorax, abduction of the arms, and the application of electricity to the phrenic nerve, were made, but without success. When Dr. Hüter came to him, respiration was very superficial and intermittent, the pulse small and frequent; the pupils did not act, and the cornea was quite insensible. This was his state about half an hour after he was found. Dr. Hüter obtained at once a pound of blood from a student and from an officer's servant; and, having defibrinated it, injected it into the right radial artery just above the wrist, at a time when respiratory movements had quite ceased. A vein in the patient's left arm was opened when about two drachms had been injected; a few drops only of blood escaped. Artificial respiration by compression of the chest was kept up while the injection was being made. After about half the blood had been injected, the blood flowed more freely from the opened vein. At the end of the injection of the entire pound, the pulse had become fuller and slower, and natural respiration had returned. In half an hour, the pupils were sensitive to light, and the patient moved his arms a little. For four hours it was necessary to hold the tongue forward, on account of its tendency to fall back; when this ceased, consciousness returned. There was still some drowsiness on the following day. Recovery was complete on the fifth day. In commenting on the case, Dr.

Hüter insists on the necessity of using a sufficient quantity of blood, e.g., a pound; and says that injection into the arteries is in such cases much preferable to that into the veins.

GORRHOEA TREATED BY TANNIN AND GLYCERINE.—Dr. Schuster of Aix-la-Chapelle describes, in Pick and Auspitz's *Archiv f. Dermatologie und Syphilis*, a method of treating gonorrhoea and gleet, to which he was led by observing the results of a similar plan in uterine catarrh. Tannin, when mixed with glycerine, forms a waxy mass, which soon becomes smooth, hard, and brown, but readily dissolves under a gentle heat. Dr. Schuster has made rods, three or four inches long, consisting of tannic acid 2 parts, powdered opium 0.12 part, with a sufficiency of glycerine. These are soft in the summer, but become very brittle in the winter. The rod, moistened with hot water, is introduced into the urethra, and a piece about an inch and a half long is left in: it melts down and forms a whitish mass with the mucous secretion of the canal. The rod may, after remaining from five to ten minutes, either be removed by the finger or be expelled by the stream of urine. The remedy is applied twice or thrice daily. Dr. Schuster treats gonorrhoea in all its stages in this way; a cure follows in a period varying from seven to eighteen days.

CHLORIDE OF LIME IN RODS.—Dr. Köbner of Breslau describes (*Berlin. Klin. Wochenschr.*, No. 47, 1870) a method of making solid rods of chloride of zinc. Two parts of the chloride are fused with one part of nitrate of potash, and formed into rods, which are kept in tin-foil in a well-stoppered bottle. They will last for week. The combination forms, says Dr. Köbner, an excellent caustic, holding a place midway between nitrate of silver and caustic potash. It is recommended for use in lupus, and in syphilitic and scrofulous ulcers.

GLYCERINE INHALATIONS IN CROUP.—The *Wiener Medizin. Wochenschr.* for November 19th, 1870, gives an analysis of a pamphlet by Dr. G. Stehberger of Mannheim, who recommends the treatment of croup by inhalation of pure glycerine through Siegle's apparatus. He was led to try this remedy in croup from observing its good effects in cases of hoarseness and loss of voice. In 1869, after an epidemic of measles, there were numerous cases, in the practice both of Dr. Stehberger and of other practitioners in Mannheim, where, whether the symptoms were those of true or of false croup, the good results of the inhalation soon became evident. The cough became more free and moist, and the children were able to sleep almost immediately after being relieved by the inhalation. In severe and advanced cases, however, these results were not so evident; and it is doubtful whether they occur, if the remedy be not applied early and repeated sufficiently often. The glycerine is used unmixed, if it be pure; if not pure, it is diluted with a little water. The inhalations are repeated, according to the urgency of the case, at intervals varying from half an hour to an hour and a half, for about fifteen minutes at a time. Dr. Stehberger ascribes the effects of the glycerine to the fact, pointed out by Dr. M. Sims, that it increases the secretion of the mucous membranes, and thus reduces tumefaction.

HÆMOSTATIC COTTON-WOOL.—Dr. Ehrle describes (*Berliner Klinisch. Wochenschr.*, No. 57, 1870) a hæmostatic cotton-wool. The cotton is soaked for an hour in a solution containing 4 per cent. of soda, then washed and dried. It is then dipped one, two, or three times in a dilute solution of perchloride of iron, dried, and pulled apart by the fingers. It is hygroscopic, and is said to be an excellent dressing for wounds.

IODIDE OF POTASSIUM IN BRIGHT'S DISEASE.—Professor Crequi of Brussels has given iodide of potassium with good result in the second stage of Bright's disease. He says that those who have previously tried this remedy have failed because the doses have not been sufficiently large. He begins by giving from one to three grammes (fifteen to forty-five grains) daily, increasing the daily quantity by a gramme, until an amount varying from seven to fifteen grammes (or even more, if the symptoms appear to demand it) is reached. Favourable results from the use of the iodide in severe albuminuria have also been noticed by Dr. Bandon and Dr. J. Semmla of Naples. Dr. Caspari of Meiningen has (*Deutsche Klinik*, No. 27, 1870) given the iodide of potassium in five cases. A good result followed in three: the urine became free from albumen, the dropsy disappeared, and the patients regained strength. The other two patients died. The explanation offered of the action of the iodide of potassium in Bright's disease is, that it diminishes the exaggerated productivity of the connective tissue, which is manifested in parenchymatous nephritis by the production of spindle-cells around the Malpighian bodies.—*Wiener Med. Wochenschrift*, Nov. 12th, 1870.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, Medical Appointments and Trials, Hospital and Society Meetings, important Inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, JANUARY 14TH, 1871.

THE GROWTH AND DISTRIBUTION OF THE BRITISH MEDICAL ASSOCIATION.

IN presenting last week tabular analyses of the growth and strength of the British Medical Association, we accompanied them with some remarks having for the most part a general bearing; pointing out, preliminarily, to which causes the general progress of the Association appears to be chiefly attributable. We now propose to supplement those observations by some comments bearing on the increase of the Association in the several localities, with the view of ascertaining in what localities additional efforts seem to be most demanded, and what additions or amendments of the present local machinery are suggested by the inspection of figures.

Referring to the first table, it will be seen that the increase has been most marked in Middlesex, the Northern Counties, and Ireland. This has arisen in no small degree from the holding of the annual meetings of 1867, 1868, 1869, and 1870, in Dublin, Oxford, Leeds, and Newcastle; and from the formation of a new Branch—the Cumberland and Westmorland—in 1868. In other parts also there has been a fair increase, due in a considerable proportion to the energetic action of the Secretaries of Branches and other members of the Association, who have exerted themselves to persuade their professional friends to avail themselves of the advantages arising from membership of the Association.

A bare statement of numbers, however, such as is given in Table I, does not show the whole of the facts; for, while an apparently stationary condition of the Association in a district may be compatible with the presence in its ranks of a fair proportion of the members of the profession resident in the locality, other districts showing an increase in the number of members may not yet have raised the number to so high a percentage as in the former case. Table II gives information regarding the *relative* strength of the Association; and we will here note down some of the reflections which have arisen in our mind from a consideration of the figures of the table.

It will be seen that, in the whole of England and Wales, about twenty-eight per cent. of the medical practitioners belong to the British Medical Association. Excluding London, where the proportion of members of the Association to the profession is necessarily smaller than elsewhere, owing to the active competition of the numerous medical and semi-medical societies, the percentage is 31. The percentage in the several counties varies from 63 in Cumberland to 13 in Essex; and, as a general rule, the largest percentages are found where the operations of the Branches have been carried on most vigorously and steadily.

We must here, however, point out that in some cases the apparent percentage of members in a county does not fully represent the activity of a local Branch. Thus, in Gloucestershire, there is an apparent percentage of 39; a very fair proportion, but which does not accurately represent the effect produced by the Bristol division of the Bath and Bristol Branch—well known as one of the most active of our local organisations. Taking the numbers of members of the Association and of the profession in Bristol and Clifton—where the operations of this Branch mostly lie—we find a percentage of about 53; while, in the remaining part of the county, the percentage is 29. A similar condition would probably be found to exist with regard to Bath, Birmingham, Manchester, Liverpool, and other large towns.

Again, from a cursory glance at the second table, it may at first sight appear that in some districts, where actively conducted branches flourish, the percentages are comparatively low. This is especially the case in the South-Eastern Branch, where the plan of subdividing the Branch into districts has been originated and followed. To understand correctly what has been done in this district, reference must be made to Table I, where it will be seen that, especially in Surrey and Sussex, there has been a marked increase in the number of members during the last four years. The formation of districts in Surrey and Sussex, and the appointment of local secretaries, within the last four or five years, have been productive of much benefit to the Association.

It will be seen that several counties—notably those in the North of England, together with Warwickshire (where the Birmingham Branch is in operation) and Shropshire (where there are two Branches)—present percentages of members considerably above the average. Here there have been in operation the influence of general meetings of the Association, the active zeal of the Secretaries, and, in several instances, the comparative concentration of the influence of the Branches on the members of the profession in one or more large towns, and the holding of frequent meetings. On the other hand, the lowest percentages are mostly found, either where there are as yet no Branches, or where the district is too extensive for efficient management from a single centre. This, we would venture to observe, is especially the case in the South Western District. Our friends in Plymouth, who are preparing a cordial reception for the Association at its next annual meeting, will, no doubt, influence a large number of members of the profession to join our ranks; but it would be very desirable, in our opinion, if in this and the other large districts, such as that included in the Birmingham and Midland Counties Branch, in the Metropolitan Counties Branch, and in Yorkshire, measures were taken for the appointment of additional Secretaries in the towns distant from the present head-quarters, and for the organisation of local meetings on the plan followed in the South-Eastern Branch. Thus, the appointment of active Secretaries at Plymouth, Barnstaple, and in Cornwall, at Stafford and Worcester, at Leeds, at Durham, in Essex and in Hertfordshire, would be productive of great benefit to the Association. There are, too, Branches where the number of Secretaries is sufficient, but where great benefit might arise from the holding of district meetings. This is especially the case in the Midland Branch; which, comprising four counties, visits, at its one meeting in the year, each county in succession.

We have not offered any comments on the condition of the Association in Scotland and Ireland. As yet, our numbers there are but small; but it is to be hoped that before long energetic men may take up the matter in various parts of those countries, and bring a large accession of members to the Association.

In making these remarks, our object has been to point out some of the directions in which exertions for the increase of the Association are most required and may be most usefully made. Those gentlemen who so liberally and devotedly give their time as Branch Secretaries, and those who fill other honorary offices of the Association at no small cost to themselves, deserve the best thanks of the Association for their labours; and we are sure that they will readily appreciate the advice which we have ventured to give to them and their constituencies. Our Association has become a great and powerful body; yet, not so great as it ought to be. More exertions, both general and individual, to bring members to its ranks, are indeed required: our colleagues in the North of England have shewn what can be done. We ought not to rest from our labour until we have brought into the Association all respectable members of the profession.

NAVAL MEDICAL REFORM.

WHILE men are flocking to the army, a fair supply cannot be obtained for the navy. If we look to the causes which operate to produce this deficiency, we shall have to note first the natural dislike to sea-service of men not reared to it; then the superior prospects of advancement in

the army, and constant full pay; the uncertainty or insecurity of Admiralty medical regulations, which are often marked by a disregard of relative equality of rank with civilian officers; the disadvantage at which medical officers are placed by having to acquire by years of actual service what is given to executive officers by their seniority on the list, regardless of actual service. The failure of the last order in Council on promotion and retirement to provide for medical officers equality with those of similar grade in other classes has caused disquiet in the profession. The insufficiency of candidates at the last two examinations has proved the impossibility of filling the naval medical ranks under present circumstances and on the existing terms. Inducements must be offered without adherence to the terms that attract men into the land-service.

At a very useful juncture, Dr. F. J. Brown of Chatham—who has a peculiarly complete knowledge of the subject from former connexion with the navy, and has on many occasions rendered tried and valuable services—has produced a pamphlet in which he reviews the present state and prospects of the Naval Medical Service, with suggestions for its improvement. Dr. Brown's pamphlet may, we think, be accepted as an official statement of the views and wishes of the service at large; for means have been taken to ascertain how far the suggestions which he makes would smooth away existing difficulties, and there is good ground for saying that this scheme would be welcomed by the service. In its broad features, it tends to remove those points of objection to which we have adverted in recent articles. The surgeon would be recognised as such on entry, and the prefix of assistant would be dropped. Equality of rank would give equality of privilege, except in the matter of executive command, which is sacred. An improvement of pay and half-pay is required, especially to officers of long service; greater scope for promotion than at present; improved retirement; allowance to accord with rank; pensions to active and retired officers in the same proportion as to the military branch. We do not now enter into particulars, because they are worked out in detail in Dr. Brown's pamphlet. We shall wait to see what reception this claim on behalf of the naval medical officers receives, before discussing or advising the kind of action which it invites.

THE CONJOINT COMMITTEE OF THE COLLEGES OF PHYSICIANS AND SURGEONS AND THE SOCIETY OF APOTHECARIES, LONDON.

THE conference of the Conjoint Committee of these examining bodies on Friday advanced the question of instituting united examinations one step further. A joint subcommittee was appointed to draught once more a scheme for such examinations. A section of the Committee seem by no means as yet fully to realise the only grounds on which the profession show any interest in these proceedings, and the grounds on which they can hope to make the new qualification popular and useful. We have already pointed out—and the universal expression of professional opinion has supported our view—that the only large interest involved is that of simplifying, and yet rendering uniform, satisfactory, and complete, the mode of obtaining the diploma of practice and registration in this country. No small part of the value of the proceedings of the Colleges is lost by their failure to obtain the co-operation of the Universities, which, there is abundant ground to believe, would have been liberally accorded. It still remains open to the Committee to confer a benefit on the profession, and to help forward the cause of education, by making this first general examination, which is to be the qualification for practice and registration, a condition preliminary to their individual and higher diplomas. This would be a step in advance, for which we should all owe them thanks. We believe that a resolution to this effect was brought forward, but has been postponed. It is, however, a very vital matter; and the institution of the diploma on any other conditions would, we think, stamp it as a failure. If this examination is to be a thing eschewed by men seeking the higher

diplomas and looking to advancement in the profession, it will be an inferior qualification, which men will shun, rather than seek. We do not want any new ear-marked qualification, but a scheme for making the minimum examination, which shall confer a right to register, a respectable, honourable, uniform, and satisfactory test of ability, which all shall pass through in the first instance, before they go on to higher grades.

THE MEDICAL SCHOOL OF GLASGOW UNIVERSITY.

THE winter session having now gone through a considerable part of its course, it may be proper at this period to consider the suitability of the new arrangements. We believe that we are within the mark when we say that the inconvenience of having the Hospital at a distance of not less than two miles from the University, is very seriously felt by a large number of students. It not only gives rise to considerable inconvenience in the matter of conveyance from the one place to the other, which is not entirely overcome by the service of omnibuses in the morning; but there is the further disadvantage, that the out-door dispensary practice must be entirely neglected by the students, because it is impossible to return to the Hospital in the middle of the day, the dispensary being held at 2 P.M. These inconveniences have arisen from the delay which has occurred in the erection of the proposed new Hospital in the neighbourhood of the University. The continual delay in the erection of this Hospital has been to many for some time a source of astonishment, and a certain amount of anxiety for the position of the Medical School. We were, however, somewhat reassured on the point by the public announcement some time ago that the specifications for the building were already out, and that operations would commence immediately. We have been expecting to be able to inform our readers that the first sod had been turned long ere this; but our expectations have been hitherto disappointed. If this method of working be persisted in, we have no hesitation in saying that the Medical School in Glasgow will soon have cause seriously to regret the want of energy shown in the matter. The complaints of students are being already loudly expressed; and should the cause continue, we have grave fears that the number of medical students will at least not increase in the manner which was expected from the advantages of the magnificent building just entered. Already there are disquieting rumours of considerable reductions in the number of students, arising from many going to other schools to finish their curriculum. We are glad to inform our readers that these rumours are as yet unfounded; that the number of students this year is only one less than last year; and that these two years stand considerably above all the others of the last decennium. But the mere fact of the existence of such rumours is sufficient to cause uneasiness to those interested in the Glasgow University, and they have no doubt arisen, as we have hinted, in the delay in commencing the new hospital. Nor is there any reason, that we are aware of, why the works should not go on at once. The University buildings have been entered free of debt; and surely this is a sufficient guarantee that funds will be forthcoming for such a necessary institution as a hospital—necessary not only to the school, but in as high a degree to the public, who cannot find anything like sufficient accommodation in the crowded wards of the Infirmary. We hope the University authorities will at once take the matter seriously in hand; and, when the facts are put before the generous public of Glasgow, we have no doubt that any appeal will meet with a liberal response.

DR. PROTHEROE SMITH has been elected a Corresponding Member of the Imperial Academy of Medicine of Rio de Janeiro.

DR. MICHAEL FOSTER and Mr. Watts are engaged in translating Kühne's *Physiological Chemistry*.

MR. SPENCER WATSON informs us that he does not intend to present himself as a candidate for the assistant-surgeoncy of Charing Cross Hospital.

DR. WOOD has been appointed Lecturer on Chemistry at St. Mary's Hospital Medical School.

SIR WILLIAM FERGUSSON will deliver the Hunterian Oration on Tuesday, the 14th proximo; and, early in the ensuing month, Professor Wilson will resume his lectures on Dermatology.

It is understood that Government intends to grant £200 annually towards the endowment of a chair of Geology in the University of Edinburgh. Together with the endowment bestowed by Sir Roderick Murchison, this will make up an income of about £700 a year.

MR. JAMES F. WEST has announced himself as a candidate for the office of Assistant-Surgeon to St. Thomas's Hospital. Mr. West is a former pupil of St. Thomas's, and is one of the surgical staff of the General Hospital, Birmingham, where he holds an excellent position in the estimation of the profession. Mr. F. Churchill, Surgical Registrar of the Hospital, will also offer himself as a candidate.

DR. LANKESTER held an inquest last week on the body of a domestic servant, named Jemima Hall, aged 22. The girl had complained to her mother that her work was too hard for her, and on Thursday last she left her situation and went home. She had not been home long before she suddenly fell to the floor and died. The medical evidence showed that her chest and lungs were quite deformed by tight-lacing, and that she died from the effects of it. The jury returned a verdict in accordance with this evidence.

DR. LATHAM of Cambridge, who has rendered great services to the Association as Honorary Secretary to the Cambridge and Huntingdon Branch, having retired, has found an able and efficient successor in Dr. J. B. Bradbury of Cambridge. The thanks of our associates are eminently due to Dr. Latham, not only for his services to the Branch, but for those which he rendered on the occasion of the annual meeting at Cambridge, of which we shall long retain agreeable recollections in the Association.

SICK-CLUBS.

THOSE connected with clothing-societies for sick-clubs will do well to imitate the Belfast ladies, who never give out any clothing to the poor in Christmas or New Year's week, knowing the temptation there is to pawn them at this season of the year.

QUEEN'S HOSPITAL, BIRMINGHAM.

AT the meeting of the General Committee of the Queen's Hospital, Birmingham, held January 6th, 1871, the following resolution was moved by the Rev. Dr. Wilkinson, Rector of Birmingham, seconded by Mr. Furneaux Jordan, Surgeon to the Hospital, and carried unanimously:—"The Committee of the Queen's Hospital have received with regret the communication from Mr. West of his intention to make application for the post of Honorary Surgeon to St. Thomas's Hospital, London, as they fear, from his distinguished attainments and special qualifications, he will probably be successful in his application, and they would in such case be deprived of the services of an officer, who has discharged his duties in this hospital to the great advantage of the institution, and to the benefit of the patients who have been placed under his charge; nevertheless, they cannot withhold the expression of their best wishes for his success in his application."

THE AMERICAN REBELLION.

THE *Medical and Surgical History of the American Rebellion*, now approaching completion, includes the tabular statements, discussions, and histories of typical cases, with illustrative wood-cuts, of 29,572 cases of amputations, and 4775 excisions. These records will also be found peculiarly instructive in that they trace the ulterior results of the more important cases, and the remote effects of injuries and mutilations. None of our European reports of a similar character trace the cases beyond the date of discharge or pension.

REFORM COMMITTEE OF THE ASSOCIATION.

WE last week referred to the proceedings of the Reform Committee of the British Medical Association. We have since received the following official memorandum on the subject.

The Reform Committee of the British Medical Association, appointed at the annual meeting held at Newcastle, met on Tuesday, December 27th, and decided:

1. To accept the responsibility which the withdrawal of the Medical Bill of the Government last September was declared by members of the legislature to have thrown on the Association; of preparing a Bill for the ensuing session of Parliament.

2. That the withdrawn Bill of the Government, with such modifications as the principles advocated by the Association demanded, should form the basis of the proposed Bill of the Association.

3. That Clause XVIII of the original Bill of the Government, which was expunged in the House of Lords, should be restored.

4. That the General Medical Council should be made representative of the whole body of the profession, as well as of the Government, of the Universities, and of the Corporations.

5. That the Council should, with this view, be constituted on the principle of containing representatives of the Universities and Corporations in the proportion of one-half of its number, nominees of the Government in the proportion of one-fourth, and representatives elected by the registered members of the profession residing in the United Kingdom also in the proportion of one-fourth of the Council.

6. That the enactments of the Council so constituted should, as regards preliminary and medical education, be binding on the Universities and Corporations.

7. That provision should be made for rendering the professional examinations practical.

A Subcommittee was appointed to carry out the above resolutions.

HEALTH OF PARIS.

UNDER date of January 3rd, we have details of the mortality prevailing within the city during the last week of 1870, which have a painful significance not to be disregarded at this present critical period of the siege. It will give additional interest and value to these details if we contrast them with the corresponding facts for the same week given in the Registrar-General's weekly return for London.

	London.			Paris.		
Small-pox	110	...	...	454	...	...
Measles	29	...	...	19	...	...
Scarlatina	110	...	...	6	...	...
Diphtheria	8	...	...	12	...	...
Whooping-cough	49	...	...	(?)	...	...
Croup	15	...	...	16	...	...
Typhus fever	10	...	...	250	}	
Typhoid fever	21	...	...	
Simple continued fever	13	...	...	
Diarrhoea	6	...	...	98	...	...
Dysentery	1	...	...	51	...	...
Erysipelas	10	...	...	10	...	...
Phthisis	185	...	...	(?)	...	...
Bronchitis	265	...	...	258	...	...
Pneumonia	105	...	...	201	...	...
Heart-disease	88	...	...	(?)	...	...
Puerperal affections	11	...	...	8	...	...
All other causes	724	...	...	1897	...	...
Total deaths	1760	...	...	3280	...	...

Estimated population... 3,200,000 2,000,000

Relatively to the population of the two cities, the deaths as given above for the week ending 31st December, were equivalent to an annual mortality of 29 per 1000 in London and 85 per 1000 in Paris. It appears, however, that this astounding difference by no means represents the full measure of the contrast, inasmuch as the Paris returns take account only of deaths in private houses, and do not include those occurring in the hospitals, ambulances, etc. The total mortality of the week to which we are referring is estimated at 4000, which would raise the death-rate to 104 per 1000! In the comparison of fatal diseases for which we have given the data, it needs to be remembered—in fact it is obvious—that the nomenclature is not in some cases uniform. The destructiveness of small-pox, and the great prevalence of fever, diar-

rhœa, and dysentery, are the special characteristics of the Paris return. Coupled with the fact that in twenty-two days of December the temperature was below freezing-point, is the excessive mortality from bronchitis and pneumonia; and no doubt a considerable proportion of the 1897 undistinguished causes of death was due mediately or immediately to the action of cold and privation. He must be an optimist indeed, who can see in the present condition of Paris a single ray of hope shining through the dark cloud now hanging over her.

NEW POINTS IN THE CHEMISTRY OF MILK.

SOME important observations recorded in the first number of the *Milk Journal*, indicate that the specific gravity of milk is a very uncertain guide to its strength. It appears that mere keeping for three or four days in a closed vessel determines a change in the density of milk—that in point of fact milk *expands* on being kept, so that its specific gravity falls sometimes even below that of water. An explanation of this strange phenomenon was sought in the assumption that fermentation of the milk-sugar had taken place, and that by this means the milk had been charged with alcohol, which would, of course, render it lighter. Direct experiment, however, failed to detect the least trace of alcohol. The spontaneous expansion of volume must therefore be due to some strange molecular change in the caseine, and possibly also in the milk-sugar.

MANAGEMENT OF INFANTS.

SOME very sensible rules for the general management of infants have been drawn up by the Infant Mortality Committee of the Obstetrical Society of London. They will be published in a form suitable for cheap distribution among the poor. They contain nothing new to medical men, but epitomise clearly and sensibly the most approved rules for washing, clothing, ventilation, sleep, air and exercise, feeding, suckling, feeding of nursing mother and wet-nurse, weaning, and hand-feeding. They have been compiled after much correspondence and with considerable care.

MISS GARRETT.

WE are informed that Miss Garrett has no intention of resigning her seat at the School-Board in marrying, nor do her friends entertain any expectation that she will be called upon to do so. She will continue to practise, taking the name of Garrett-Anderson. Mr. Anderson was Treasurer of the Executive Committee which conducted her election, and has been for some years an active member of the Managing Board of the East London Hospital for Children, to which Miss Garrett is attached as visiting physician. Mr. Anderson has a sister who is one of the seven besiegers of the medical schools of Edinburgh.

AN IMPORTANT ECONOMY.

LIEBIG reckoned the amount of nutritive juice lost in salting at one-third of the meat. Mr. Whitelaw of Glasgow has applied himself on a large scale to utilise both the matter in solution and the nutritive constituents of the meat. He proposes to dialyse the brine either in chambers fitted up with diaphragms, or by filling a series of ox-bladders with brine, fitted with gutta percha mouth-tubes stretching across and into vats of water. The liquid contained in the bladders is pure juice of flesh; two gallons of brine are found to yield one pint of solid extract of meat.

REDDITCH NUISANCES.

REDDITCH seems to be favoured with some sanitary officers of a peculiarly independent turn of mind. The Registrar has informed the Board flatly that he will not furnish them with returns of deaths unless they pay him for them, and the Registrar-General has informed the Board that he considers the Registrar quite right; and, on the principle that work done ought to be paid for, we concur with the two Registrars, general and local. The health of Redditch is, however, anything but satisfactory; and, as it is afflicted with bog-holes and surface-wells, some of the sources of its fevers are not far to seek. The In-

spector of Nuisances, Mr. Baylis, seems greatly elated with his sagacity in making so great a discovery. He writes to the Medical Officer of Health: "I yesterday inspected the premises where *you* yesterday reported to *me* (!) several bad cases of fever;" and state that the bog-holes have been "cleaned out through my interference." He then observes that the surface-wells previously dry have become filled by water draining through a contaminated soil; that he has examined some of the drinking-water in the houses where the fever broke out and now is spreading, and he finds it unsatisfactory on microscopic inspection. No doubt the water is contaminated with sewage-matter. Mr. Baylis is evidently a very intelligent man, and with a degree of knowledge and education above that enjoyed by most men holding his office. His superior education and intelligence should, however, prevent him from parading his reports to his medical officer and superior before the Board offensively, or from addressing him as though their positions were reversed. The pollution of the water of surface-wells is so constant an element in the causation of enteric fever, that to look for it is now the *a b c* of the sanitary alphabet; and to discover it, although an important service, is not an extraordinary feat. The Board should authorise Mr. Brunton to procure a chemical and microscopical report on the water-supply of Redditch by an expert; and meantime the use of the water from the surface-wells should be rigidly prohibited.

VACCINATION ARRANGEMENTS.

A POOR-LAW medical officer writes to us: "The present frightful epidemic of small-pox seriously demands the attention not only of the medical profession, but of the legislature. The greatest achievement in modern medicine is the power which we most certainly possess of stamping out small-pox by vaccination. To what cause, then, is the present epidemic due? Certainly not to the defective protective power of vaccination, but to the system of vaccination as carried out in this country. Let us see what is the system adopted in London, where small-pox is rife, and contrast it with that in the city of Dublin, where small-pox is unknown. The want of organisation, division of authority, and antagonistic interests, are the fruitful causes of failure in every department in life; and this is most palpably evident in the unsystematic way in which vaccination is bungled in this country. If those who direct the vaccine arrangements desired to bring discredit on the immortal discovery of Jenner, they could not have succeeded better than by permitting that condition of things which has brought small-pox to our very doors. Those to whom the guardianship of the health of the nation is entrusted have obtained from the legislature a compulsory Act, which fully recognises the value of vaccination on the one hand as an efficient preventive of small-pox, and, on the other hand, sanctions such arrangement for the working of this Act as defeats the very object in view. The first essential to full protection for the nation is that every child should be vaccinated, and every adult re-vaccinated within certain well ascertained limits, so that one and all may be rendered unsusceptible of small-pox. The first step to insure this desideratum is to secure the registration of every child, and that the possession of this registration should be in the hands of the vaccinators, so that there may be no defaulters unknown to the authorities. How is this sought to be accomplished? First, by appointing a registrar independent and isolated from the vaccinator, and the vaccinator isolated from the registrar, thus creating two offices in place of one, both officers badly paid, and both working in the dark. Hence so many defaulters, and hence the small-pox epidemic and hence the demand for small-pox hospitals. How is this to be remedied? By following the simple and efficient system which has worked so admirably in Ireland; viz., by the amalgamation of the offices of registrar, vaccinator, and dispensary physician. In Dublin, these offices are held by one person, whose duty it is to forward half-yearly to their Boards a list of those who ought to be vaccinated and have not been. These the Board then prosecute. The dispensary physicians can trace each case, as they register the birth, and, if death take place, they register the death also; if the vaccination have been performed in the district by any other medical man a cer-

tificate is furnished to them. If they do not receive a certificate of vaccination, and have not registered the death, they inquire the reason why; and, if not answered satisfactorily, they prosecute. Hence their success; for this service a whole country is grateful, and has been spared the scourge of small-pox, and the necessity of building huge small-pox hospitals, and the expense of maintaining numbers of widows and orphans. The nation must look to the Poor-law medical service, not only to cure disease, but to the more productive portion of their ill-requited labours, the prevention of it. This especially applies to small-pox, where, by universal vaccination and re-vaccination, they can render the state certain protective service. It would appear that we have, by taking the vaccination out of the hands of district medical officers, still further diverged from the plan found to work so admirably in Ireland."

MIDDLESEX SUICIDES.

IN analysing the statistics of inquests held as Coroner of Central Middlesex, Dr. Lankester points out, in his seventh annual report just prepared, that the proportion of suicides to the population in England and Wales is 1 in 12,000 of the population, while the proportion in Central Middlesex is about 1 in 13,000 of the population. The figures seem to show that of all causes of death suicide is the most constant. The proportion in which the sexes commit suicide is nearly everywhere the same. It may be stated that the proportion of males to females is as five to two. The ages at which suicide is committed are for the seven years nearly the same. One in twelve are young people under 20 years of age; a larger proportion amongst people above 60; and the remainder, nine-tenths of the whole, are equally divided amongst people from 20 to 40 years of age. A further analysis of the cases shows that, as a rule, women prefer taking poison and drowning themselves. Of the twenty-three cases of female suicide in 1868-9, six were from poison and ten from drowning. Women seldom cut their throats or hang themselves, whilst, of the sixty-six cases of male suicide, exactly half chose these methods of self-destruction. Men are also more given to jumping out of windows and from the tops of high places.

A RARE ENTOZoon.

DR. COBBOLD describes, in a note which we publish in another column, an entozoon which, if not actually, is practically unknown to the most experienced helminthologists. The *Stephanurus dentatus* is a species of strongylus which has hitherto been described only by the late Professor Diesing of Vienna in the *Annalen des Wiener Museums*, a scarce book to obtain. It is not fully described in any of the systematic works, and appears never to have been seen by Kuchenmeister or Von Siebold. The interest of this observation consists less in the ready identification of the parasite by Dr. Cobbold, than in the abundance with which, according to Dr. Fletcher of Indianapolis, who forwards the specimen for examination, it is found in the hogs slaughtered in that part of the world. The bearing of this observation on the extension of parasitic disease remains yet to be determined. The suggestions arising out of Dr. Cobbold's observation will, no doubt, be followed out by local inquirers; and we shall expect to hear more of this hitherto rare, and probably interesting, stranger.

SMALL-POX IN THE HOSPITALS.

WE understand that there are now seventeen cases of small-pox in St. George's Hospital, which have all occurred within the wards of the hospital; and in one or two other cases doubtful symptoms have appeared. The cases have occurred in the different wards, both male and female, on the medical and surgical sides. All the officials have been vaccinated; the patients generally have not been vaccinated. The small-pox cases are carefully isolated in wards set apart for the purpose, at the top of the house, commonly used as convalescent wards. Meantime, until the disease shall have been stamped out by isolation, the number of patients has been reduced as much as possible; and the admissions also are limited to cases of extreme urgency. There have been twenty cases of small-pox in the London Hospital, which have been treated in isolated wards; and at present the wards are free.

There are three cases of small-pox at Guy's; and a few cases have broken out at other London hospitals. We print in another column a letter from Dr. Roberts of University College Hospital, raising the question of revaccination in lieu of isolation of patients.

THE LONDON HOSPITAL.

THE authorities of the London Hospital have determined, since the recent outbreak of small-pox, to increase extensively their accommodation for infectious cases. During the last three months, about twenty cases of small-pox have been treated. Half of these contracted the disease in the hospital, while the others were admitted for symptoms of fever which developed themselves into those of small-pox. These patients were placed in an isolated building, ordinarily used for erysipelas, detached altogether from the general hospital, and, when convalescent, were removed to separate wards in a distant part of the general hospital. These patients have now left the hospital, and immediate steps are being taken to erect the new isolated wards as soon as possible in the same position as the present ones. They will afford accommodation for forty beds. In the meantime, two excellent wards have been fitted up for male infectious cases in the old school.

DEATH OF DEAN ALFORD.

THE news of the death of the Dean of Canterbury, which occurred this (Thursday) afternoon, from congestion of the lungs, will be received with regret. His merits as one of the most distinguished scholars of the English church will no doubt be duly recognised elsewhere. Our motive for mentioning him here, independently of admiration for his talents, is to recall to the minds of our associates the graceful interest which he took in the Association during its visit to Canterbury ten years ago, and the good will which he manifested on the occasion. His splendid and hospitable reception of the members at the Deanery, and the generous disposal of his time and learning in giving a clear and able demonstration of the Cathedral and its antiquities, were among the most notable and gratifying events in the history of the meeting.

SICKNESS-RETURNS.

THE New York Board of Health collects its information as to zymotic diseases after a somewhat arbitrary fashion. By a resolution of the Board of Health passed on the 23rd of August last, physicians were required to send them a certificate of the death of every patient within twenty-four hours afterwards, in addition to that furnished the undertaker, under a penalty of one hundred dollars for each neglect to do so. A "*Delinquent Doctor*" writes to the *New York Herald* (Dec. 13th) to know whether it is the intention of the Board of Health to enforce the law compelling medical men to report deaths occurring in their practice. There were some three hundred notified to call upon the attorney of the Board of Health, and nearly all did so. The attorney explained to them the law, and assured them that the Board had no wish to fine them for the first offence, but hoped that they would yield a ready compliance with the law, as these reports were very necessary in a statistical point of view.

SCOTLAND.

THE EDINBURGH UNIVERSITY ENDOWMENT ASSOCIATION.

THE annual meeting of the Edinburgh University Endowment Association was held in the Physicians' Hall on Monday, the Lord Justice General, the president, in the chair. It was stated at the meeting that Dr. Neil Arnott, who has already founded a Scholarship in Physical Science, had announced his intention of presenting £1,000 to each of the four Scotch Universities during the present year.

NEW FEVER HOSPITAL AT BELVIDERE.

GLASGOW having acquired the ground of Belvidere estate, for the purpose of erecting on it a permanent fever hospital, temporary accommo-

dation is being in the meantime provided to meet the present epidemic of relapsing fever. This has been done in the shape of long wooden pavilions, covered outside with felt. Four such pavilions have already been occupied, and four others are in the process of erection. Each pavilion is divided into two wards, each of which is furnished with twenty-four beds. The heating of these wards is effected by means of open stoves, placed at a distance of several yards from each end of the ward. These stoves present in front the appearance of a broad open fire-place, while, as they are placed away from the walls, and the chimney is in the form of an iron cylinder, passing straight to the roof, there must be much less loss of heat than by the ordinary fire. These stoves are also utilised for the purposes of ventilation. The fire is surrounded by a chamber, which is in communication at the bottom with the external air, and at the top with the atmosphere of the ward, so that the air coming from the outside is sent into the ward in a heated state. These arrangements have been severely put to the test during the late extremely severe frost, and we understand that, considering the wards have only a thin wall of wood and felt, the heating has been on the whole satisfactory. The wards themselves present a clean appearance, and are formed somewhat after the model which Dr. Russell has brought to great perfection at the Fever Hospital in Parliamentary Road. It will, of course, take some time before the whole arrangements at this place will be in perfect working order. With this new accommodation added to that which has been now provided at the hospital in Parliamentary Road, the number of beds at the disposal of the city will soon amount to seven hundred; and we must confess that we look with some degree of satisfaction on this display of vigour after the tardy policy which has been so long in vogue in the Town Council. Meanwhile relapsing fever shows, since the onset of the frost, some signs of diminishing, and the numbers are already not much in excess of the hospital accommodation.

GLASGOW ROYAL INFIRMARY: ANNUAL MEETING.

THE annual business meeting of this institution was held on the 2nd instant. It appears, from one of the reports read there, that, while the numbers admitted during the year are again in considerable excess of the preceding year, there is no distinct diminution in the demand for beds. The report in every part bears on its face the necessity for increased accommodation, and we hope that this will not now be long delayed. One marked feature of this report is the considerable number of small-pox patients which have been treated in the hospital, more especially in the late month. And in connection with this it may be stated that small-pox is at present much more prevalent in the city than it has been for some years. The considerable increase in the number of patients, and also certain new arrangements in connection with the clinical teaching, has caused a slight deficit in the income of the house last year. This is only to the extent of £150, so that a very small effort ought to cover it. In this hospital it is the habit to carry the legacies and donations to the stock-fund, and last year these reached the very handsome sum of £5,336.

IRELAND.

SURGICAL SOCIETY OF IRELAND.

THE discussion on the "Unity or Duality of the Venereal Poison," raised by Professor Morgan, was continued on last Friday, and again postponed to the next meeting.

DUBLIN HOSPITAL COMMISSION.

It is said that the office of Secretary to this body is likely to be vacant owing to Dr. Phelan's illness, and that Dr. Madden, of the Rotunda Hospital, will be elected to it. By the course pursued by the Poor-law Commissioners, many candidates have been put to fruitless and considerable expense in canvassing and advertising.

HEALTH OF DUBLIN.

THE deaths during the past week by bronchitis have been 53, against 29, the average of the corresponding weeks of the past seven years. The cold and wet weather may partly account for this, but it must be mainly attributed to the wet state of the streets of the city.

THE LATE MAURICE H. COLLIS, M.B., SURGEON TO THE MEATH HOSPITAL.

THE numerous friends of this much-talented and estimable member of our profession have resolved to erect a memorial bust of him in the Meath Hospital, to which institution he was much endeared, and in which he received the wound that led to his untimely end. The following gentlemen form a committee for the carrying out of the above object:—George H. Porter, M.D., Surgeon to the Queen in Ireland; Philip C. Smyly, M.D.; James H. Wharton, M.B.,—former colleagues of Surgeon Collis; Geo. B. Owens, M.D., J.P.; and Edward B. Stanley, Secretary, Meath Hospital.

MEAT AND DRINK.

THE dairymen of Dublin are in a sad predicament. They can neither sell their diseased cows for the purpose of human food, as was formerly their practice, and is now largely practised by their happier and less oppressed brethren in London, nor can they, like them, peaceably mix 30 or 40 per cent. of water with their milk. The dire activity of Dr. Cameron, the Health-Analyst, and of Professor Fergusson, the authority under the Contagious Diseases (Animals) Act, has cut them off from both of these traditional sources of emolument. Cut off from watering their milk and dressing diseased cows for market, they have had to face the position, and announce that they cannot sell milk for less than one shilling and fourpence a gallon—a rise of fourpence, but representing, it is stated, the market value of unadulterated milk. The Dublin people are satisfied. It is hopeless to expect that equally energetic means will be taken to extinguish the abominable practice of adulterating milk and dressing diseased cows in London; but, as the City Analyst has rendered services so great to the people of Dublin, we may suggest to Cork, Belfast, and other cities of Ireland, that they might do worse than look out among their citizens one capable of fulfilling the duties of analyst and inspector, and endeavour to save themselves and their children from this plague of adulterated and diseased food, from which Dublin is fast being delivered by Dr. Cameron.

POISONOUS SWEETMEATS.

THE Public Health Committee of the City of Dublin have recently summoned a confectioner for having sold sweetmeats which, on chemical examination, were found to be impregnated with chromate of lead. The deleterious substance in question had been employed as a yellow colouring ingredient in the preparation of "sugar-peaches". The defendant, having through his counsel pleaded ignorance of the poisonous properties of the colouring matter, and having undertaken to give up its use, was dismissed on paying all costs. Still more recently, summonses have been issued by the same Committee against, and fines inflicted on, several vendors of various articles of sugar-confectionery, which, on examination, were found to contain poisonous substances in greater or less quantity. Certain lozenges contained a sort of fuller's earth (terra alba) to the amount of 10 to 12 per cent. Another specimen of sweetmeat was coloured with vermilion (bisulphide of mercury). In this case, an ounce of sugar-stick contained four grains of the mercurial preparation. Dr. Cameron, the City Analyst, stated that there was no necessity for impregnating sugar-confectionery with these dangerous colouring agents, as saffron gave quite as beautiful a yellow, and cochineal a red, as chromate of lead and vermilion. The price, however, of saffron was just forty times as great as that of the chromate of lead. Cochineal, on the other hand, was fully as cheap as the sulphide of mercury.

NOTES OF THE WAR.

THE WOUNDED AND SICK AT ORLEANS.

WE have received the following from Mr. R. W. Parker of the Anglo-American Ambulance at Orleans.

In anticipation of the fighting, which ended in the retaking of Orleans by the Prussian troops, we had fitted up a large church as a hospital, which we called the Loyd Lindsay Hospital. Our first care had been to provide and fix up stoves to heat it. This was our greatest trouble, the weather having been exceedingly cold, the thermometer marking ten and twelve deg. centigrade below zero. We next had to devise some means of lighting it; oil-lamps and candles only serving to render the darkness more conspicuous. It was decided to have gas laid on, which was accordingly done, and so now we have ample light all night long. The church presents a very novel and unusual appearance, especially in an evening, with its long rows of beds, and gas-jets burning brightly overhead.

The extreme cold has prevented our ventilating the church as thoroughly as we should have liked; and, in consequence, we have now and then seen simple wounds, apparently going on well when they were taken in, assume an unhealthy appearance, and commence to slough; the patients have had rigors, a high temperature, with other symptoms of blood-poisoning, which in one or two cases have been followed by death.

A very large number of wounded men have passed through Orleans. At one time, there were between six and eight thousand under treatment in this town alone. In our own hospital, we were compelled to have two patients in one bed, so great was the need. Communication with Germany has since been opened, and a great number of the more lightly wounded have been sent away home.

Among our cases in the Ambulance, there was one of peculiar interest, a gun-shot wound of the tibia. A chassépôt bullet had drilled a hole completely through the head of the tibia without fracturing the shaft; it was just as though a hole had been punched into the bone. The posterior tibial artery was injured, and, as there had been hæmorrhage on several occasions, the femoral artery was ligatured. The patient died of gangrene three days afterwards.

Professor Langenbeck is here very busy at work; he has done a large number of subperiosteal excisions of joints. Most of the cases are doing well. He prefers, however, amputation of the thigh in lower third to an excision of the knee-joint, which he only performs under special circumstances.

A medical society, under the presidency of Professor Langenbeck, Dr. Loeffler, and Dr. Müller, has been organised for the discussion of medical affairs in connection with the field hospitals; it holds its meetings twice weekly. Preparations are also shewn. At the first meeting, tracheotomy as a prophylactic operation in bullet-wounds about the neck was discussed. It was argued that, where œdema was present, with any difficulty of breathing, this operation was indicated at once, as death had been known to follow very quickly and very suddenly after the first symptoms had set in. At the next meeting, pyæmia and septicæmia were discussed. So many conflicting statements were made, that I abstain from entering into particulars; in fact, I should have the greatest difficulty in giving you an idea of the conclusions which were ultimately arrived at respecting these diseases.

The sanitary condition of the town generally is very far from being satisfactory. The promiscuous overcrowding of houses—firstly by the French, and then by the French troops, together with the want of cleanliness and ventilation, will easily explain this. There is a very large number of cases of small-pox. In the Hôtel Dieu alone, there are upwards of five hundred cases; the mortality has been considerable. Typhus and typhoid are also at work, with their usual success.

Provisions are now very scarce; sugar, coffee, bread, and such like domestic comforts, are selling at very advanced prices; and, seeing that there is no commercial communication between this and other towns not worse off than ourselves, it is a matter of division and subtraction to find out how long a limited quantity will last even at these prices.

The weather continues exceedingly cold, which tends, I am afraid, to make the want of provisions still more felt.

January 3rd, 1871.

PRINCIPLES OF MEDICAL BILL PROPOSED BY THE ROYAL COLLEGE OF SURGEONS, IRELAND.

Basis of Medical Legislation.—That the necessity for medical legislation appears to be due to the absence of uniformity of curriculum, of examinations, and of fees required by the various medical authorities from candidates for their licence to practise.

That, without such uniformity, competition, pecuniary and educational, will be certain to continue, to the injury of the public, the detriment of the medical profession, and the hindrance of scientific progress.

That, with the view of securing uniformity of education, the framing of a curriculum sufficiently comprehensive should engage the earnest attention of the several medical authorities.

That the several medical authorities could entertain no valid objection to the enactment of such a curriculum as would be satisfactory to all; as their object should be to qualify for practice, not the unlearned or unskilled, but those who shall have been duly prepared and fitted for the discharge of duties of vital importance.

That, to satisfy the medical authorities that the curriculum so agreed upon should be strictly observed, representatives from each should constitute a board for the examination of candidates for licence.

That an Examining Board so formed should be provided for each division of the United Kingdom, so as to guard against the delay and inconvenience likely to ensue from the formation of a single board authorised to hold examinations in succession or rotation.

That, with such a curriculum and Examining Board, the public would be secured against the admission to the profession of any but well informed and skilled practitioners.

That candidates who shall have passed such Examining Boards should alone be entitled to register; and that no candidate who shall have failed to pass any such Examining Board should be permitted to present himself for re-examination until a period of six months shall have elapsed.

Principles of Medical Bill.—1. That the General Medical Council should be remodelled either as suggested (a) by the Council of the Royal College of Surgeons, Ireland, or (b) by some other plan which, whilst preserving to the medical authorities their due share of representation on the General Medical Council, should provide for a more direct representation thereon of all registered medical practitioners.—2. That the powers of the General Medical Council, so remodelled, should be increased to such an extent as to enable them to enforce the following arrangements; and that it should also be obligatory on them to do so within a reasonable period; viz.: (a) To insist upon the union of the several medical authorities in each division of the kingdom to form Examining Boards—one for England, one for Ireland, and one for Scotland—for the purpose of testing the qualifications to practise both Medicine and Surgery of all such candidates as shall present themselves for examination. (b) To call upon all such medical authorities to make arrangements amongst themselves for the formation of such Examining Boards, and, in their default, to nominate such for them. (c) To insist upon such an arrangement as will secure the presence of representatives from the Examining Boards of the two divisions of the kingdom at the examinations of the third, who shall take an active part in all the examinations conducted by such Board. (d) To insist upon the searching character of all the examinations conducted by such Boards, and to secure their uniformity by uniformity of curricula and of schemes of examination. (e) To secure that candidates rejected at any one of the Examining Boards shall not be permitted to present themselves again for re-examination before that Board, or either of the Boards in the other two divisions of the kingdom, until a period of six months shall have elapsed from the date of such rejection.—3. That the several medical authorities so united in each division of the kingdom should arrange amongst themselves the curricula, schemes of examination, and amount of fees to be paid for their conjoined licence; as also the division amongst themselves, after the defrayment of all the expenses of such examinations, of any surplus which may accrue, in such proportion as they may agree upon themselves: all such arrangements, however, to be submitted for the consideration and approval of the General Medical Council, and, if need be, to be subject to such modifications as shall seem fit to the said Medical Council to make therein.—4. That, should the medical authorities in each division of the kingdom fail in unanimously framing a scheme as required by this Bill, but a majority of them may have agreed upon such scheme, then that it shall be competent for such majority to forward their scheme for the consideration of the General Medical Council.—5. That, should the several medical authorities in any or all of the three divisions of the kingdom fail in arriving at such arrange-

ments amongst themselves, then—but in that case only—it should not only be competent for, but obligatory on, the General Medical Council to make for them, collectively, such arrangements.—6. That all such medical authorities as refuse in these particulars to obey the behests of the General Medical Council shall have their right to have their qualifications entered on the *Medical Register* suspended by the General Medical Council.—7. That each one, or all, of the several medical authorities which feels itself aggrieved by any decision of the General Medical Council should be at liberty to appeal, within one month, to Her Majesty's Privy Council; that said medical authority, as also the General Medical Council, should be at liberty to be heard before said Privy Council, by counsel or otherwise, as they may prefer; that, until such appeal be decided, such decision of the General Medical Council should have no force, but that the decision of such Privy Council should in all cases be final.—8. That it should be competent for any three or more members of the General Medical Council to appeal to the Privy Council from any decision of the General Medical Council; and that it should be competent for the said Privy Council to receive and consider the objections and representations so made before them, and finally to decide such appeal as to them may seem best.—9. That no person shall be permitted to have his name entered on the *Medical Register* who has not passed the Examinations conducted by one or other of the Boards herein provided, unless he should have been legally entitled to do so previous to the passing of this Bill, and be in possession of a double qualification to practise both medicine and surgery.—10. That no person should be permitted to hold any public medical appointment unless his name appear on the *Medical Register*.—11. That the assumption of any variety of medical title by anyone whose name does not appear on the *Medical Register*, or who is not in possession of some one or other of the qualifications described in Schedule A to the principal Act as amended by this Act (unless in the case of honorary titles conferred by Universities or Colleges legally entitled to confer same), should be treated as a penal offence; and that it should be imperative on the General Medical Council to prosecute in all such cases.—12. That an Imperial Diploma should be granted to all such candidates as successfully acquit themselves at these Examinations; such diplomas to be issued by the authority and under the seal of the General Medical Council, certifying that its holder is a Licentiate in Medicine, Surgery, and Midwifery (L.M.S.M.).—13. That no candidate should be allowed to present himself for examination before any of the General Examining Boards, without first producing a receipt from the Registrar of the Branch Medical Council of the division of the kingdom in which he seeks to present himself for examination, for the amount of the registration fee which he would hitherto have to pay for registering his qualifications after he had obtained them; which fee, however, should be returnable to him without any deduction in case he fails to pass such examinations, or in case he should subsequently decide on not presenting himself for such examinations.—14. That it should be competent for each of the medical authorities, after the passing of this Act, to examine all such candidates as may present themselves before them, and to confer on such of them as they may think fit all such degrees, diplomas, or licenses which hitherto they have been entitled to confer; but that none such should entitle their holders, unless they shall have previously passed one or other of the General Examining Boards provided under this Bill, to have their names entered on the *Medical Register*, nor should they exempt them, when they come before any of the General Examining Boards, from being tested by them on any of the subjects which shall enter into the schemes of Examination of said Boards; nor should they exempt them from paying the full amount of fees which otherwise they would have to pay for the Examinations and Licenses of such Boards.—15. That it should be competent for any one or all of the several medical authorities in that division of the kingdom in which the candidate has obtained his title of L.M.S.M., should it so seem fit to them, to affiliate said candidate to their body by conferring on him their lowest title without further examination, but on the payment of such fee, not exceeding £10 10s. to each such medical authority, as shall be decided upon by such medical authority, subject, however, to the approval of the General Medical Council; which lowest title so conferred shall entitle its holder to the like rights and privileges which he would have enjoyed in such medical authority had it been conferred on him previously to the passing of this Bill.—16.—That it should be competent for each registered medical practitioner to enter on the *Medical Register* immediately under his title of L.M.S.M. any other medical qualification which he may possess, without payment of any further fee than that for registration, in case he enters it or them at the time he registers his title of L.M.S.M., or on payment of a fee of 5s. in case he seeks to register such at any subsequent period.—17. That, subsequently to the provisions respecting

the fees payable for registration contained in Clause 16, it should be competent for any L.M.S.M. to enter upon the *Medical Register* any degree in arts which may have been conferred on him by any University in the British Dominions legally entitled to confer the same.—18. That the degree of Bachelor of Surgery, conferred either before or after the passing of this Act by any University in the British Dominions legally entitled to confer the same, should be deemed to be one of the qualifications described in Schedule A of the Medical Act.—19. That it should be competent for the medical authorities in each division of the kingdom, in any examining scheme which they may propose, to make provision, subject to the approval of the General Medical Council, for such persons as may possess a medical or a surgical qualification which, previous to the passing of this Act, would have entitled them to enter their names on the *Medical Register*, which provision shall exempt them from further examination by the General Medical Examining Board on such branch of their profession.—20. Where any person proves to the General Medical Council that he holds a medical diploma granted previously to the passing of this Act in any British possession or in any foreign country, and that such diploma represents the like degree of knowledge, as tested by examination, to that which is required for obtaining a licence under this Act, and entitles the holder thereof to practise medicine and surgery in the British possession or foreign country where the same was granted, and that he is more than forty years of age, and that he has practised medicine and surgery for not less than ten years out of the United Kingdom, or in the case of persons practising in the United Kingdom at the time of the passing of this Act, for not less than ten years in the United Kingdom or elsewhere, it should be lawful for the General Council to direct such person to be registered under the principal Act without examination, but upon reasonable proof of character, and upon payment of such fee, not exceeding the ordinary fee for registration, as the General Medical Council may from time to time prescribe. The term "medical diploma", for the purposes of this section, includes every degree or title or licence or authority to practise granted by any university, college, or body, or granted by any department or persons acting under the authority of the Government of the British possession or foreign country.—21. That all fees for examination under this Bill, as well as for registration, should be paid to the Registrar of the Branch Medical Council for that division of the kingdom in which the examination is to be held, previously to the candidate being permitted to present himself for examination; that such Registrar should account for and pay over to the several medical authorities such proportions of the surplus, after defraying all examination expenses as they may be entitled to; and that all such registrars should be remunerated for such services, by such a percentage on the gross receipts as should be determined upon by the respective medical authorities, subject to the approval of the General Medical Council.—22. That the serving of all notices, and the forwarding of all documents required in accordance with the provisions of this Bill, by post, should be deemed valid service.

Preliminary Examinations.—23. That an Examining Board should be appointed for each division of the kingdom, for the purpose of testing the attainments in general knowledge of all students previous to commencing their professional studies. That this Board should be formed of Examiners nominated, one from each body, by the several medical authorities situated in that division of the kingdom in which such Board is to examine.—24. That this Examining Board should frame a scheme of examination, which scheme should be submitted for approval to the General Medical Council, and that that body should have authority to insist upon an uniform standard of preliminary education being required by each of the Examining Boards in the several divisions of the kingdom, and that it should be imperative on that body to enforce such uniformity.—25. That no student should be permitted to commence his professional studies after the passing of this Bill (with the exceptions hereinafter provided) until he should have passed this Preliminary Examination, nor should he get credit for any certificates required by the several schemes of professional education, which he may produce, unless these bear a date subsequent to his having passed such Preliminary Examination.—26. That these Preliminary Examinations should be held twice in each year—one examination before the commencement of the Winter, the other before the commencement of the Summer Medical Session.—27. That these examinations should not be held in any of the buildings belonging to any of the medical authorities in that division of the kingdom in which they are conducted.—28. That all such students as produce proofs of such an amount of preliminary education as shall be deemed by the members of the Board of Preliminary Examination to be equivalent to examinations conducted by that Board should be, subject to the approval of the General Medical Council, exempt from examination before this Board.—29. That each student should pay such fee for this examination as may be de-

terminated on, subject to the approval of the General Medical Council, by the several Examining Boards on Preliminary Education in each division of the kingdom.

General Clause.—Immediately on the General Medical Council having finally decided on the several schemes proposed to them by the medical authorities in the several divisions of the kingdom, they should forward copies of that which they have adopted for the consideration and approval of, or, if need be, for modification by, the Privy Council, who, in case of approval (subject to the right of appeal hereinbefore provided for each one or all of the medical authorities), should confirm the same within one month of their receipt; but, in case of modification, should give the General Medical Council, as also the several medical authorities in each division of the kingdom, due notice of such modification, and afford all these parties an opportunity to be heard before them in respect of these modifications.

PLANS FOR REMODELLING THE GENERAL MEDICAL COUNCIL.
ENGLAND. IRELAND. SCOTLAND. TOTAL

Medical Council as at Present.

Medical authorities	7	5	5	17
Crown nominees.....	4	1	1	6
President	—	—	—	1
	11	6	6	24

**Royal College of Surgeons' (Ireland) Plan.*

Medical authorities	7	5	5	17
Crown nominees.....	1	1	1	3
Professional nominees ...	3	1	1	5
	11	7	7	25

**British Medical Association Plan.*

Medical authorities†	5	4	4	13
Crown nominees.....	4	1	1	6
Professional nominees ...	4	1	1	6
	13	6	6	25

ASSOCIATION OF CERTIFYING MEDICAL OFFICERS
OF GREAT BRITAIN AND IRELAND.

THE third annual meeting of this Association was held at the Great Northern Hotel, King's Cross, London, on the 23rd of September last: J. T. ARLIDGE, M.D., President, in the Chair. The following gentlemen were elected officers for the ensuing year:—*President:* J. T. Arlidge, M.D., Stoke-on-Trent. *Vice-Presidents:* F. Jordan, Esq., Birmingham; W. Roden, M.D., Kidderminster. *Treasurer:* Edmond Waters, L.R.C.P. Ed., Coventry. *Secretary:* G. M. Stansfeld, Esq., Bristol. A Committee, consisting of twelve members, was also elected.

The annual address was delivered by the President, Dr. Arlidge, and was ordered to be printed in the Annual Report of the Association.

The Committee, in their Report for the past year, had no special matter to bring before the Association, excepting the singular plan of Mr. Inspector Redgrave to place the principal sanitary work of the kingdom under the jurisdiction of the Factory Office. They also directed attention to the Half-yearly Reports lately issued by the Factory Inspectors, an epitome of which, referring especially to certifying surgeons and to certain amendments proposed in the Factory Laws, and also embodying certain statements respecting the duties of certifying surgeons and the manner in which those duties are performed, is added to the Annual Report of the Association for the past year. In connexion with the question of the utility and efficiency of certifying surgeons, the Committee wished urgently to call attention to the recommendation made last year, that certifying medical officers should note the rejections of children and young persons on account of bodily infirmity and disease, and prosecute inquiries relative to the effect of labour on the operatives in different kinds of manufactures, and in general note the hygienic and physical condition of the working classes. The members of the Association are earnestly entreated to induce certifying surgeons throughout the kingdom to join the Association, by pointing out the necessity for united action in maintaining and improving their status and usefulness in the administration of the Factory Laws;

* Both of these plans contemplate the election of a President from the number of the Council.

† Medical authorities disfranchised would be:—1. University of Durham. 2. Faculty of Physicians and Surgeons, Glasgow. 3. Apothecaries' Hall, London. 4. Apothecaries' Hall, Dublin.

the more so, in face of the suggested alteration of those laws, as contained in official reports, and of the impending reorganisation of the sanitary work of the kingdom. In conclusion, the Committee suggest that steps be taken to testify to Mr. Inspector Baker the high esteem of the medical officers employed under the Factory Acts for his unwearied and able assertion of the value of professional supervision in the administration of the sanitary clauses of those Acts, and of the desirability of increasing the extent of that supervision.

In order more fully to carry out the foregoing suggestion, it was proposed by Dr. Arlidge, and seconded by Dr. Roden, "That a testimonial be presented to Mr. Baker, by means of subscriptions raised from all certifying surgeons; and that a Subcommittee be appointed to carry this resolution into effect."

It was further proposed by Dr. Roden, and seconded by Mr. Underhill, "That the amount of individual subscriptions do not exceed one guinea, as it is presumed that the testimonial would be more acceptable to Mr. Baker if raised by the large body of certifying surgeons, than if it were the result of larger donations from the few."

The Treasurer and Secretary (Dr. Waters and Mr. Stansfeld) were appointed as the Subcommittee to carry out the above resolution, with power to add to their number.

Various other resolutions were proposed and adopted.

PAYMENT OF SUBSCRIPTIONS.

WE have been requested by the Secretaries of the Metropolitan Counties Branch to insert the following letter.

SIR,—May we beg a prominent place in your columns for this note, which has reference to a matter of the utmost importance to the well-being of the Association? We are all members of a very large mutual benefit society, which cannot be efficiently and economically worked without the co-operation of all, and especially the prompt and punctual payment, in advance, of his annual subscription by each of our associates, six or seven hundred of whom have not yet discharged this debt of honour for *last* year. The local secretaries do not grudge the time and trouble required for receiving and acknowledging the payments of members, one reason being that they feel that in so doing they are effecting a great saving to the Association, by diminishing the necessity for the employment of paid collectors. All that we ask of the members in return for this sacrifice on our part is to submit to the trifling inconvenience of transmitting their subscriptions. It would be an additional favour if in every case the printed circular were returned along with the remittance. In our circular issued to the members in the Metropolitan Counties District, we have announced that a collector will call on those who have not sent their subscriptions to us before a certain day; and, as the number of spontaneous payments is up to the present time much smaller than it was within the ten days after the issue of the circular last year, we suppose that many are waiting for the collector's call. Let us remind them that the numerous members in the Metropolitan Counties District who have not yet responded to our circular have it in their power to save the Association £20 or £25 by making payment within the next ten days.

We are, etc.,

A. P. STEWART,
ALEXANDER HENRY.

12th January, 1861.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT the ordinary meeting of the Council held on Thursday, the following business was transacted.

It was resolved that the house formerly inhabited by the librarian should be appropriated to the exhibition of the collection of surgical instruments, which is found to be already extensive, but which will probably now be much increased. The house in question adjoins the College, and can be easily made to communicate directly with the present Museum.

Mr. Mac Cormac, late of Belfast, was admitted to the *ad eundem* degree of Fellow of the College.

We understand that it is the intention of the governing body of the College to celebrate the approaching Hunterian Festival, on Feb. 14th, with unusual hospitality.

SPECIAL CORRESPONDENCE.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

Epidemic of Small-Pox.—Cause of High Mortality in Liverpool.

THE epidemic of small-pox has assumed formidable proportions in this town. During the last three weeks, the deaths have been 19, 26, and 38 respectively, the general average being 3. The disease first showed itself in the Everton district, situated in the north suburb, but it has somewhat declined there, and is gradually spreading towards the centre of the town. The Vaccination Act has, during the last two years, been very efficiently and thoroughly carried out by our Select Vestry under the guidance of the Medical Department of the Privy Council; and the public have so generally and so willingly availed themselves of the facilities afforded for gratuitous public vaccination, and have so entirely complied with the requirements of the law, that the present infantile population of the town is believed to be very well protected: and this has been done without the necessity for issuing a single summons or putting on any further pressure than that of moral suasion, with occasional threats of more stringent measures in a few cases of resistance. The fatal cases, we believe, have been most numerous amongst adults and children over five years of age. In the present emergency, the local authorities are taking prompt measures to secure, as far as possible, the vaccination or revaccination of all unprotected individuals; and this, with the already well protected condition of the infantile population, will, it is to be hoped, speedily check the progress of the present epidemic.

It is no less discouraging than perplexing to sanitary reformers to find that Liverpool still heads the Registrar's black list, notwithstanding the large sums of money that have been expended, and the comprehensive and energetic measures that have been adopted to improve the sanitary condition of the town. The more that is done to remedy sanitary defects, the higher the mortality appears to rise. If we appeal for an explanation to those who might reasonably be supposed to be the best informed on the subject, we are bewildered by such a variety and confliction of opinion, that we are drawn to the conclusion that the solution of this problem is as far off as ever. Some twenty years ago, the late medical officer of health, Dr. Duncan, congratulated the authorities on having discovered and abolished the chief cause of typhus in Liverpool, namely, overcrowding and cellar-residence; and, for a few years, the absence of epidemic typhus and an exceptionally low death-rate seemed to prove the correctness of this view. But the cotton famine of Lancashire, caused by the American war, soon dispelled this fallacy by bringing about a severe and fatal typhus epidemic. Our present medical officer of health, Dr. Trench, thought that our weak sanitary points were poverty and open middens. Then commenced the wholesale conversion of middens into water-closets, by the Health Committee. The exceptional distress which undoubtedly prevailed at that period has passed away, and yet our death-rate is higher than ever.

Dr. Gee quotes the statistics of the extent of pauperism, to show that the present epidemic of the so-called famine-fever cannot be attributed to want, and seems to favour the opinion that the efficient causes of the disease are intemperance, overcrowding, and want of cleanliness; but he fails to show—and, indeed, there is no grounds for supposing—that in 1870 Liverpool is more overcrowded, or its population more intemperate or dirtier than they have been in other years, when epidemics have been in abeyance, and the death-rate scarcely, if at all, above the average of other large towns. Dr. Stallard, in a hasty survey of a week's duration, flattered himself that he had put his finger upon the plague-spot. Our dwellings, he tells us, are built upon what we might call fever forcing-beds. The foundations of the houses, consisting of ash-pit refuse and macadam sweepings, are, as Dr. Stallard asserts, constantly giving off miasmatic fever-producing emanations. This certainly, if true, would account for all the disease we have, and for all that we should have, if our death-rate were quadrupled. It is true that Dr. Trench has joined issue with him on this point, and stakes his reputation on the decision which is to be given by Dr. Parkes and Dr. Burdon Sanderson, who have been requested to examine the deposits of which the foundations are made, and to report the result to the Health-Committee. Dr. Trench maintains that ash-pit refuse, carefully separated from the contents of privies, and mixed with macadam sweepings, forms a deposit, which, although at first containing an insignificant amount of animal and vegetable matter, in the shape of fish-bones, oyster-shells, potatoe-peelings, etc., ultimately forms a firm porous foundation, far superior to the spongy clay

soil which it replaces, and which, being free from human ordure, and the slight amount of organic admixture being entirely got rid of by *eremacausis* long before it is built upon, does not emit any injurious exhalations.

A paper was read at the last meeting of the Medical Institution by Mr. Newton, formerly a district medical officer, and therefore qualified to speak from personal observation, in which he undertook to prove that the cause of the excessive mortality of Liverpool was the large proportion of the Irish population, whose drunken, dirty, and improvident habits, and their reckless disregard of all sanitary laws, constituted what he called a "fever-manufactory" constantly at work amongst us. Now, although we bear willing testimony to the humorous and graphic powers of the author of this essay, we cannot say much for his logic; and we are also inclined to think that, in his intercourse with the natives of the Emerald Isle, he has imbibed something of their national tendency to give full scope to the imagination, not unfrequently at the expense of sober matter of fact. Whether the lower class of Irish are really more intemperate, improvident, and dirtier than the same class of English, Scotch, and Welsh, appears to us at least open to question; but even admitting, as no doubt is perfectly true, that the lowest class of Irish residents contribute a lamentably large quota to the death-rate, Mr. Newton "protests too much methinks" when he asserts that the excessive mortality of a town containing half a million of inhabitants, is caused by the unhealthy condition of a section of the community which does not probably much exceed a tenth of the whole population; and this statement will appear still more extravagant when it is remembered that considerably more than one-half the average mortality of Liverpool occurs amongst infants and children under five years of age. Let us now listen to a layman's opinion. Mr. Alderman Bennett thus writes: "I attribute the excess of infant deaths, disease, overcrowding, drunkenness, and filth amongst the lower orders, almost solely to their homes being the receptacles of the foulest sewer-gases. The wonder to me is how so many live, not why so many die." This appears to be the root of the whole matter, the cause of causes; but, unfortunately for the soundness of the Alderman's argument, Liverpool, be its sanitary defects what they may in other respects, is, beyond question, as Dr. Trench observes, one of the best sewered towns in the kingdom, and diseases which originate from sewer-gas would prevail in hot weather, and not in the present cold season, and when storm-floods are passing through the sewers.

Having thus endeavoured to present a summary of the opinions which have been given, and having expressed our conviction that not one of them affords a satisfactory solution of the difficulty, it will be expected that we should state what are our own views on the subject. This, however, must necessarily be deferred to a future communication.

CORRESPONDENCE.

ACTION OF MERCURY ON THE LIVER.

SIR,—Will you permit me to make a few observations on Dr. Bennett's experiments, the last of which appeared in the columns of the BRITISH MEDICAL JOURNAL on the 7th instant? At the present day there is nothing more essential to the progress of medicine than carefully conducted therapeutical observations and experiments. Our knowledge of healthy and morbid vital action has made wonderful progress; but we know only to a very small extent how it is modified by the action of remedies, and yet this knowledge ought to underlie all our treatment of disease. No one can doubt that Dr. Bennett's careful experiments are a valuable contribution to this subject; but let us clearly comprehend what it is that has been proved. Admitting to the fullest extent that the results stated in the paper just referred to have been established beyond contradiction, they amount to no more than this, that preparations of mercury do not increase the flow of bile in a *healthy dog*. The application of this result to an *unhealthy man* is wholly inferential.

Dr. Bennett thinks he has found a confirmation of the "well-known beneficial influence of exercise and muscular exertion in certain bilious disorders"—which, by the way, is rather a large generalisation—from the fact that a gush of bile followed the contraction of the diaphragm; but he has failed to find any explanation of the well-known beneficial action of mercurial preparations in certain other bilious disorders. Some years ago, a distinguished therapist, having found an excess of uric acid in the blood during a gouty paroxysm, set to work to determine the influence of colchicum in getting rid of this excess. He failed to explain its action; but I do not learn that he has given up the use of colchicum in cases suited for its administration. It will be a grievous misfortune if the profession generally discards the use of all drugs of which the *modus*

operandi fails to be discovered by careful and skilful experimentalists, even when there is no suspicion of fallacy in the argument.

It was not without meaning that I laid stress on the distinction between a healthy dog and an unhealthy man: and admitting that, so far as observation has hitherto gone, the action of mercury is identical in the man and in the dog, I should be willing to substitute the one for the other, and assert that there is a palpable fallacy in applying the results of an experiment on a healthy individual to one suffering from disease, especially in a negative sense. The therapeutical action of remedies is never seen except in disease; the physiological, or, in other words, the poisonous action, is more or less traceable to every case, whether of health or sickness, in which a large dose of the remedy is administered. Yet this, too, is modified by disease. I need surely not remind Dr. Bennett how a man with a phagedenic ulceration may take a grain of opium every hour for a day and a half or two days, with no other evidence of its action than the marked improvement in the condition of the ulcer. May I ask what conclusion would have been arrived at *a priori* in this case by an experiment on a healthy man? But, putting such an extreme case aside, what possible effect would be produced on a healthy man by the small doses of remedies which are sometimes so efficient in disease; *e.g.*, arsenic?

It is not my object to go into the question of the action of mercurials, and the reasons for giving or withholding them in the treatment of disease. My intention is merely to show that these experiments, valuable as they are in proving that mercury does not increase the flow of healthy bile in a healthy dog, and therefore probably will not do so in a healthy man, yet have no real bearing on the question whether it has any influence in relieving certain bilious disorders.

I am, etc.,

A. W. BARCLAY, M.D.

Bruton Street, January 10th, 1871.

AMALGAMATION OF MEDICAL SCHOOLS.

SIR,—An article on "The Amalgamation of Medical Schools", published last week by one of your contemporaries, appears to me calculated to convey so erroneous an impression of the position of the Middlesex Hospital Medical College with respect to the suggested amalgamation, that I venture to trouble you with the following brief explanation of the real state of the case, so far as the Middlesex Hospital is concerned, and request you will have the goodness to allow it to appear in your JOURNAL of the present week.

No active steps are being taken, or have at any time been taken, by the Middlesex Hospital Staff or Medical School towards amalgamation with either of the other medical schools named in the above-mentioned article, neither are any negotiations now on foot to bring about that object. In fact, the question of amalgamation with any other medical school has never, since I have been a member of the staff, been brought under discussion at any meeting of the authorities, lay or medical, of the Middlesex Hospital.

It is true, indeed, that about eighteen months ago, certain members of the Middlesex Hospital Staff, of whom I was one, were invited privately as individuals, but in no way as representatives of our school, to meet certain of the medical professors of University College, in order to discuss the possibility of drawing up a scheme for amalgamation. At the close of the deliberations, we stated our readiness to consider any scheme for amalgamation which might be proposed by the authorities of University College, and, if we approved of it, to submit it to our colleagues, and ultimately to the lay authorities of the Hospital. From that time, however, up to the present moment, we have received no further communication on the subject.

I can readily believe that, especially in view of the recent regulations of the College of Surgeons, the means of securing a much wider field of hospital practice must be a question engaging the anxious attention of the Medical Committee of University College Hospital; but I cannot help thinking that your contemporary has been premature in publishing the fact, as he has certainly been mistaken in supposing that any negotiations have as yet been opened with the Medical Committee of the Middlesex Hospital towards the accomplishment of the union said to be projected.

I may further say that, on the part of the Middlesex Hospital Staff and Medical College, there is no desire to enter upon any such negotiations, unless it be clearly established that the solution of the great medical question of the day, *viz.*, the improvement of medical education generally, rather than the improvement of the position of any individual medical school, is to be the real object of the suggested amalgamation.

(Signed) E. HEADLAM GREENHOW, M.D.,
Treasurer to the Middlesex Hospital Medical College.

Upper Berkeley Street, January 9th, 1871.

AN UNWORKED MINE.

SIR,—Your article, entitled "An Unworked Mine," for which you deserve the thanks, not only of the medical profession, but of the public, leads one to mention that the work, of which you have so clearly pointed out the importance and value, has already been commenced on a large scale and with singular ability by Dr. James D. Rendle, the medical officer of the Government Convict Prison at Brixton. If your notice of the subject shall induce the authorities in whose hands the results of Dr. Rendle's laborious investigations have, for some time, I believe, lain *perdus* to publish them, you will have conferred a great benefit on the community at large.

I am, etc.,

Grosvenor Street, December 28th, 1870.

A. P. STEWART.

** We have since received Dr. Rendle's valuable notes on this subject.

ELECTRO-PUNCTURE IN ANEURISM.

SIR,—I shall be obliged to you, or to any of your readers, for information upon this mode of treating aneurisms. A case of aneurism of the innominate artery was admitted under my care yesterday, so that I shall be glad to receive the information without delay. If it is sent to me privately, our JOURNAL shall have the benefit of it, and of any use that I may make of it in due course.

I am, etc.,

WILLIAM OGLE, Physician to the Derbyshire Infirmary.

Derby, January 1871.

P.S. I take the present opportunity of suggesting that cases under treatment should be announced in your columns, so as to give persons interested in similar cases the opportunity of suggesting either modes of treatment or points worthy of observation, or of visiting the cases to make observations for themselves.

SMALL-POX IN THE LONDON HOSPITALS.

SIR,—Small-pox is spreading in some of our hospitals, and is causing no small consternation amongst the medical staff thereof. At two of the hospitals the cases are becoming so numerous, that they have to be treated within their walls. At one hospital, I believe, temporary wards have been erected, and at another the convalescent wards are being devoted to that purpose. Many of the chronic cases in the various wards are being discharged, and none but the more urgent ones admitted; while the patients' friends are being altogether excluded, except under the most pressing circumstances.

One of these devoted hospitals is wont, at its annual laudation-day in October, to boast that the great Jenner was one of its past luminaries, but it is very sad to think that he should be forgotten now in the hour of need. Surely, if vaccination is of any real value—which we all believe it is—there is no occasion for all this panic. Here, at least, is an opportunity for testing it. Let all the in-patients, nurses, and servants be vaccinated, and all new admissions as they occur. Vaccination causes so little disturbance of the system, that few cases, however ill, would be influenced by it, and any such cases might be passed over till able to bear it. Cases of small-pox have broken out in wards which have no connection with each other; and the hospital must, therefore, be thoroughly infected, and cannot be disinfected or made safe by half-closing it—by simply discharging the chronic and taking in acute and urgent cases.

It would probably be necessary to appoint an officer to devote the whole of his attention to this matter, but the circumstances require it, and the subject of re-vaccination is one of great interest; and if a careful register were kept—say, in the form of a table—much new and useful information would be obtained. Such a plan might be adopted in workhouses as well as hospitals, and would prove a great public benefit. Trusting the suggestion here made will be considered by those in authority,

I am, etc.,

CHARLES ROBERTS.

2, Bolton Row, Mayfair, January 10th, 1871.

RARE ENTOZoon IN THE HOG.

SIR,—Will you permit me to call the attention of your readers to a curious discovery bearing upon the question of the prevalence of helminthic disorders amongst our domestic animals, and as showing how frequently entozoa are overlooked even in cases where they occur in great numbers? Yesterday (Jan. 10th), I received a letter from Professor William B. Fletcher, of the Indiana Medical College, Indianapolis, U.S.A., inclosing several minute fragments of one or more parasites, with a request that I would inspect, determine, and report, "as to what the are". Microscopic examination at once revealed their stronglyloid character; and I subsequently satisfied myself that they

were examples of a remarkable parasite, known only to systematists in helminthology under the title of *Stephanurus dentatus*. It was not surprising, therefore, that Dr. Fletcher should seek in vain through the works of Von Siebold and Kuchenmeister, and my own general treatise, for any account of this entozoon.

The *Stephanurus* was first described by the late Dr. Carl Moritz Diesing of Vienna in 1839, and I am not aware that any one has since met with it. Fortunately, through Dr. Diesing's kindness, I am possessed of an almost complete set of his writings, amongst which is the valuable monograph containing a full and accurate description of this worm. Without, however, going into details about the singular characters of the parasite, I will only remark upon one or two important practical matters.

Dr. Fletcher says that "in demonstrating the function of the liver" to his class, he "found a worm in the portal vein, hepatic substance, and hepatic vein"; and further, that "upon examination at the packing houses, where two thousand hogs are killed daily," he "found this worm in nine out of ten hogs" which he examined. I am not quite sure whether he means nine out of every ten hogs, or if he only examined ten hogs altogether. In either case the observation is a very remarkable one. It is added that the kidney, bronchi, and portal vessels, formed the most frequent habitat. He also found "little cysts in the pyramids of the kidney", and likewise "excavations in the lobules of the liver containing great numbers of the eggs".

The above facts are too important to be remarked upon in all their bearings; but I may note that, whereas this parasite was originally found singly, or several together, occupying cysts in the fatty tissues of the hog, Dr. Fletcher finds it occupying various organs. The true discoverer, Dr. Natterer, obtained his specimens from one or more individuals of a Chinese race of hogs at Barra do Rio Negro, Brazil, on the 24th March, 1834. Here, then, we have a parasite hitherto only once met with in a particular race of swine reared in South America, now found, after more than thirty years' interval, to be remarkably abundant in hogs killed for curing at Indiana, in North America.

I regard this discovery by Dr. Fletcher as exceedingly important, since it not only shows how readily the mere existence of entozootic diseases amongst animals (used as food) are overlooked; but it also shows to what a degree parasitism may abound without exciting any suspicion in the minds of those persons whose duty it is to look after the welfare of our cattle, sheep, swine, and other domesticated animals.

In conclusion, I may add that there is nothing improbable in the supposition that our British swine may be largely infested with this interesting nematode, the *Stephanurus dentatus*. I am, etc.,

T. SPENCER COBBOLD, M.D., F.R.S.

Wimpole Street, January 1871.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

REGISTRATION OF DISEASE.

THE importance of the registration of disease as a preliminary step to the prevention of the spread of epidemics is now recognised. The Poor-law Board, during the recent epidemic of relapsing fever and the present epidemic of small-pox, required frequent returns of the cases from the Poor-law medical officers of the metropolis. An application for remuneration for this important information was refused. Any attempt to impose additional services on the Poor-law medical officers ought to be resisted; the last straw breaks the camel's back. Let the medical officers clearly shew the value and importance of these returns, and though Gwydyr House may refuse to listen to reason, the House of Commons is prepared to do justice.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE Council of the Poor-Law Medical Officers' Association of England have made arrangements to hold their council meetings for the future at the Medical Club, 9, Spring Gardens. The Council, in adopting a new home for their deliberations, cannot fail to thank Dr. Rogers for his past kindness in placing his house at their service.

*WARING-CURRAN, J., Esq., Medical Officer of No. 2 District of the Mansfield Union, elected Surgeon to the Mansfield Woodhouse District Hospital.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION OF IRELAND.

IN adverting to the proposed programme of this Association last week, we pointed out that the first step towards satisfactory reform would be to endeavour to obtain the entire payment of the salaries of the medical officers from the Consolidated Fund, and that they should thus obtain a standing as a branch of the civil service. In this case, the salaries should be progressive, which would prove a great incentive to increased activity. Though the labours of the Poor-law medical officers of Ireland, as abundantly proved already, both in Parliament and elsewhere, are worthy of all praise, nevertheless, where no promotion exists in a service, individuals connected with it are liable to settle down in a groove—a state of things which does not tend to the advancement either of the service or even of their own individual interests. Another benefit that would be derived from this would be that superannuation would thus be fixed, and not permissive as at present. This would tend, also indirectly, to promote life assurance amongst the profession, or adherence to a Medical Benevolent Society. A very valuable society of this kind, and very energetically worked, at present exists in Ireland, and is deserving of great support. Strange to say, the fact of permissive superannuation has very often the effect of preventing thrift; and in several instances it has occurred that boards of guardians, who have at present the power of granting superannuations subject to the approval of the Commission, have refused it because they happened to discover that the applicant's life was insured. This is a strange anomaly, but it is nevertheless a fact, as was proved lately by the failure of an endeavour made by Dr. Darby of Bray, a well known and very energetic member of the profession, to induce every Poor-law medical officer to devote a certain sum annually to the formation of a sinking fund for the support of the widows and orphans, and those unable to work longer in the service. This effort was not responded to as was expected, and principally because it was well known that in many instances, under the existing system of permission, guardians would not grant superannuation, if they thought that any other provision existed. It should always be kept in view that the national health and prosperity depend in great measure on the efforts of the Poor-law medical officers—in Ireland, in the rural districts, almost entirely; that the sanitary condition of a country is not a mere local consideration, affecting only parochial or union interests. The facts of the late outbreak of small-pox in Belfast having been proved to have been principally the result of importations from England and Scotland, and the only case occurring in Dublin having come from Sweden, demonstrate clearly that disease is neither local nor even national; it is international. It is but simple justice, then, that the state should pay for the machinery connected with the upholding of the sanitary condition of the people. The Poor-law Medical Service is that branch of the public service most intimately connected with sanitation. We mentioned that this transfer of the half payment of the medical officers from the rates to the state would cause a diminution of the poor-rates of close upon £80,000 a-year. This is a subject which our union representatives might very fairly bring before the various boards of guardians, with a view to their co-operation with their county representatives in impressing the importance of such a measure on the members of Parliament for each county. In order to show the importance of such a measure, we might just mention the cases of Dublin, Belfast, and Cork. In the first, it would make a difference of over £4000 a-year to the ratepayers; in Belfast about £2000; and in Cork £1500 a-year. It is a legitimate, and we think not an unpleasant, task for our union representatives to bring the matter before the guardians of every union in Ireland. The distribution of a surplus fund will be considered in Parliament this session, which, however our ideas may differ on the subject, could not be directed into a better channel. We, therefore, say to the medical officers of Ireland again, if you wish to look after your own interests lose no time; "be up and doing."

INDISCRIMINATE ISSUE OF DISPENSARY TICKETS.

WE observe, in the Dublin papers, that an attack was made at a late meeting of the Board of Guardians of the South Dublin Union, on Dr. Ryan, a gentleman better known as one of the leading members of the corporation, and an alderman of that city, than as a Poor-law medical officer, because he had not attended to a *red ticket* which had been issued by an unauthorised person. He stated very frankly in his letter,

that he would have attended in the interests of humanity, had he not been unwell at the time, but he was not called upon to do so legally, as the ticket was not signed either by a guardian, a member of committee, a warden, or a relieving officer, who alone have the right to do so. Nevertheless, an attempt was made to bring the matter before the Poor-law commissioners. This is one of those instances which shew the necessity for a protective association for the Poor-law medical officers' special interests, and it is instructive further as to the formation of an English dispensary system.

APOTHECARY-GENERAL (IRELAND).

OUR readers will be well satisfied to learn that, at the last moment, even after the date of the appointment had been fixed, the Commissioners, who, as we hinted last week, had changed their mind, communicated to the conference of the Poor-law guardians of the North and South Dublin Unions, held on Friday, Jan. 6th, that they would not press this appointment in its present form. The suggestion of inspection which we proposed will probably be adopted. They do not appear to consider now that the qualification of apothecary will be a *sine quâ non*, as it might have the effect of excluding eminently qualified individuals from competition. If the principle of inspection be adopted, there can hardly be less than four inspectors, one for each province, considering that the number of dispensary stations and workhouses in Ireland is over twelve hundred. The Commissioners add, that the subject will probably be brought before Parliament. We counsel the Poor-law medical officers of Ireland to see that their county representatives bring their claims not only for the holding of the appointment, but also for assisting in the appointing of these inspectors, before the members of Parliament for each county, in this first step towards promotion in Irish Poor-law service, they may rely on the political co-operation of both the British Medical Association and the Poor-law Medical Officers' Association of England.

BALLYSHANNON UNION: BALLINTRA DISPENSARY DISTRICT.—The Committee of the district will, on Tuesday, January 24th, proceed to appoint a properly qualified Medical Officer for the district, at a salary of £70 *per annum*, exclusive of Vaccination Fees. The person who may be elected will have to reside in or near Ballintra. Population of district, 3497; area, 27 square miles. Probable value of Vaccination Fees, £4. Registration, *nil*.

LOVE, James, A.B., M.D., elected Medical Officer of the Stranorlar Workhouse. Dr. Love is also Medical Officer of the Killygordon Dispensary District, in the Stranorlar Union.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—At the recent preliminary examination in Arts, etc., for the Fellowship and Membership of this Institution, which was conducted by the College of Preceptors, 303 candidates were examined, viz., 82 for the Fellowship, and 221 for the Membership; for the former distinction, 61 were successful; and for the latter, 104. The following are the names of the successful candidates for the Fellowship, viz.:—

Messrs. J. Adams, W. R. Basham, J. W. Anningson, A. A. Blakiston, G. Bate, J. A. Bloxam, J. W. Bull, J. F. Chavasse, O. H. Channer, R. W. F. Carter, G. E. A. Cheeseman, W. C. F. Clapham, A. F. Corbin, R. F. Cumming, F. J. Davies, E. J. Day, H. Stevens, E. C. C. Boyle, D. O. J. Good, G. C. Harding, W. H. Hall, C. Higgins, P. Jiff, H. J. Ilett, D. J. Jones, M. M. McHardy, W. T. Law, H. Manders, E. G. Marshall, B. J. Massiah, S. May, J. T. Plumble, A. E. Powell, R. A. Ransom, C. G. Ring, E. H. Saunders, A. Roche, A. P. Sherwood, H. Smalley, G. Snell, A. L. Sobey, H. F. A. Steele, A. F. Stevens, L. H. Stevenson, L. L. Thaine, R. T. Thomas, W. Stockwell, C. L. Webb, J. Green, W. H. Wilcock, J. Marshall, C. G. Winckworth, H. A. Pycock, G. J. B. Stevens, R. C. Leavens, C. Aldridge, A. E. Dalton, W. R. Williams, J. Bellingham, H. Coates, and A. Young.

The following passed the preliminary examination for Membership, viz.:—

Messrs. T. Anningson, H. S. Atkinson, F. W. Baedeker, H. M. Baker, J. W. Bardin, S. F. Bigger, H. L. Bernays, C. L. Brandreth, W. H. Briggs, A. G. Buckland, P. Bruce, C. H. H. Cameron, W. T. M. Clark, R. T. P. Collyns, E. Bush, F. Buckland, F. Culhane, C. Curwen, C. H. Davis, W. G. Cresswell, F. W. Evans, E. J. V. Earle, C. A. Edwards, T. Fort, J. Ferguson, E. J. De Gruyther, E. G. Gould, D. C. B. Griffith, J. R. Guy, H. Habgood, A. Harding, A. Harrison, G. H. Haines, C. H. Hayes, G. H. Hetherington, E. W. Henley, W. C. Hopgood, J. F. Horne, S. Honeywill, J. S. Hooker, E. Howard, T. W. Howitt, W. Johnson, A. H. Jubb, H. C. S. Kevern, W. S. Johns, C. F. Knox, W. K. Layborn, J. K. Lickford, C. B. Lyster, H. Lyne, W. B. Maltby, J. H. L. Macintire, T. J. H. Martin, E. W. Martland, J. W. B. Mason, W. Latham F. Nankivell, J. Newton, G. R. Master, S. G. Parkinson, F. Parslee, C. E. Perry, E. W. Paul, E. T. Pilling, W. R. Pearless, V. L. W. Jones, T. Lloyd, M. Randle, J. N. Pendleton, H. O. Piers, W. Rhodes, J. Rhys, A. R. Ross, T. Richards, A. Bain, H. M. Sampson, E. J. Shaw, W. A. S. Bridgeford, F. H. Spooner, A. W. F. Street, C. J. Symonds, A. F. Turner, C. H. Phillips, C. Rhodes, A. Wakefield, A. O.

Whit. S. W. Young, C. F. Willis, R. G. Allen, S. Smith, W. G. Turtle, F. Ormrod, H. W. D. Walsh, T. W. Ward, H. H. Williams, W. N. Smith, E. J. Muddle, H. G. Shaw, W. G. Harvey, H. Maynard, A. E. Boothroyd, J. T. W. Kellard, G. H. Kinch, L. A. Barrow, T. Brown, C. de S. Brock, B. H. Eales, J. M. Grimmer, G. H. Allen, H. W. C. White, W. Roberts, C. A. Robertson, J. Scully, and J. M. Tudge.

The next preliminary examination in Arts, etc., for both Fellowship and Membership will take place in June next. The first primary or anatomical and physiological examination for the present session takes place on the 14th instant, and the next pass or final examination on Friday next.

APOTHECARIES' HALL.—The following gentleman passed his examination in the science and practice of medicine, and received a certificate to practise, on Thursday, December 29th, 1870.

Garland, Henry, Walworth Road

The following gentleman also on the same day passed his first professional examination.

Bland, William Charles, St. Bartholomew's Hospital

The following gentlemen passed on January 5th, 1871.

Langley, Noah Beldom, Cricklade, North Wilts

Rastrick, Edward Elliott, Southsea, Hants

Turner, Frederick Harry, High Wycombe

The following gentlemen also on the same day passed their first professional examination.

Hill, Thomas Wood, St. George's Hospital

Wade, Reginald, St. Bartholomew's Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

ALDERBURY UNION, Wilts—Medical Officer and Public Vaccinator for District No. 3: applications, 19th; election, 20th.

BALLYSHANNON UNION, co. Donegal—Medical Officer and Public Vaccinator for the Ballintra Dispensary District: 24th.

BEDFORD, County of—Surgeon to Visitors of Houses Licensed for Lunatics.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY—Surgeon: applications, 21st; election, 31st.

CLONMEL DISTRICT LUNATIC ASYLUM—Assistant Resident Physician: applications, 25th; election, Feb. 2nd.

CRAIGNISH, Argyleshire—Parochial Medical Officer.

DUMFRIES AND GALLOWAY ROYAL INFIRMARY—House Surgeon, Clerk, and Apothecary: applications, 14th.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Ratcliff Cross—Surgeon: applications, 23rd; Weekly Board, 24th.

EAST WARD UNION, Westmorland—Medical Officer and Public Vaccinator for the Workhouse at Kirkby Stephen: applications, 14th; election, 16th.

HAMADRYAD HOSPITAL SHIP, Cardiff—Resident Assistant Medical Officer: applications, 16th.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, Margaret Street, Cavendish Square—Visiting Physician.

KENT COUNTY OPHTHALMIC HOSPITAL, Maidstone—Consulting Surgeon: March 18th.

MELTON MOWBRAY UNION, Leicestershire—Medical Officer for the Melton Mowbray No. 1 District and the Waltham District.

MIDHURST UNION, Sussex—Medical Officer and Public Vaccinator for the Milland District: applications, 16th; election, 17th.

NEWCASTLE DISPENSARY—Two Visiting Assistants: applications, 26th.

ROYAL EDINBURGH LUNATIC ASYLUM—Assistant Physician.

ROYAL SURREY COUNTY HOSPITAL, Guildford—Medical Officer: Feb. 23rd.

ST. THOMAS'S HOSPITAL—Surgeon.

UNIVERSITY COLLEGE HOSPITAL—Assistant Obstetric Physician.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

COLLIE, Alexander, M.D., appointed Resident Medical Officer to the Homerton Fever Hospital, London.

HARRISON, Richard, Esq., appointed Assistant House-Surgeon to the West London Hospital.

***KING, Robert, B.A., M.B. Cantab.**, appointed Medical Registrar and Superintendent of Post Mortem Examinations at the Middlesex Hospital, *vice* *John Murray, M.D., resigned.

LEE, Edward Samuel, Esq., appointed House-Surgeon to the West London Hospital, *vice* T. L. Brown, Esq., resigned.

***WICKHAM, R. H. B., Esq.**, appointed Medical Superintendent of the Newcastle-on-Tyne Borough Lunatic Asylum, in the room of the late *H. G. Stewart, M.D.

***WRIGHT, Henry R., M.B.**, appointed a Visiting Surgeon to the Knaresborough Dispensary, *vice* Dr. Beaumont, resigned.

BIRTHS.

CROCKER.—On January 6th, the wife of *James Crocker, Esq., Surgeon, Wetherby, Yorkshire, of a son.

GOOD.—On December 20th, 1870, at Wilton, the wife of *J. Good, Esq., of a daughter.

MOORE.—On December 28th, 1870, at Ipswich, the wife of *Harry Gage Moore, L.R.C.P. Lond., of a son.

DEATHS.

ROSS, Thomas, Esq., Surgeon, at Wakefield, aged 68, on December 19th, 1870.

STOKES.—On January 10th, at Clare Street, Dublin, aged two months, Anna Mary, daughter of *William Stokes, jun., M.D.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.

SATURDAY St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Dr. Morell Mackenzie will exhibit his Eclectic Inhaler. Mr. Henry Smith will show a Tooth-Plate accidentally swallowed. Dr. Carpenter (of Croydon), "On the Causation of Scarlatina."

TUESDAY.—Pathological Society of London, 8 P.M. Specimens to be exhibited:—Mr. James Adams, Fracture of Head of the Radius; Dr. Crisp, Ulcer of Stomach, with Fatal Hamorrhage; Dr. Crisp, Cancer of Tongue; Mr. Wagstaffe, Cystic Sarcoma of the Lower Jaw; Mr. Whitehead, Peculiar Sputum; Mr. Holmes (for Dr. P. Martyn), Tumours of Hands and Feet; Dr. Payne, Pyæmia from opening of Scrofulous Abscess into Vein; Dr. Payne, Cysts from Peritoneum containing Air.

WEDNESDAY.—Hunterian Society, 7.30 P.M., Special Council Meeting, 8 P.M., Dr. Sutton, "On Herpes of the Tongue, Pharynx, and Larynx."

SATURDAY.—Association of Medical Officers of Health, 7.30 P.M. Dr. R. Barnes, "How far is the present prevalence of Small-pox to be attributed to the plan recently introduced of limiting the number of Public Vaccinators?" Dr. T. Spencer Cobbold, F.R.S., "On Entozoa in relation to the Public Health, especially as regards Sewage-Irrigation," illustrated by drawings and specimens.

EXPECTED OPERATIONS AT THE HOSPITALS.

GREAT NORTHERN HOSPITAL, Wednesday, January 18th, 2 P.M. Excision of the Knee-joint, and Operation for Fistula *in Ano*, by Mr. Gay.

KING'S COLLEGE HOSPITAL, Saturday, January 14th, 1871, 2 P.M. Perineal Section, and Operation for Anchylosed Hip-joints, by Sir W. Fergusson; Operation for Vascular Growth on Arm, and Perineal Section, by Mr. Smith—Wednesday, January 18th, 2 P.M. Operation for Radical Cure of Hernia, by Mr. Wood.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

CONTRIBUTORS TO THE JOURNAL.—The name of Dr. Samuel Crompton, Physician to the Salford Hospital, should have been inserted in the list of intending contributors to the JOURNAL.—Dr. T. W. Grimshaw is Physician to Steevens's Hospital, not Assistant-Physician, as stated in the list.

Two hundred copies of the circular and documents shall be forwarded to Mr. R. H. Nicholson, Hull.

ERRATUM.—The age of the patient in Mr. Miall's case of fractured rib from coughing, in the JOURNAL of January 7th, should have been 33, instead of 53 as printed.

ERRATA.—In the review of Dr. Maudsley's book in the JOURNAL of January 7th, page 12, column ii, line 6, for "repeats", read "repeals"; line 9, for "effective", read "affective", and for "identical", read "ideational."

SIR,—I am glad to see that some portion of your space is henceforth to be devoted to the interests of the Poor-law medical officers of England and Ireland; but it is desirable that you should bear in mind that the President of the English Association is a strenuous advocate for the introduction of the Irish dispensary system into England. I have therefore to ask you to explain to the members of the Association the system of Poor-law medical relief now existing in Ireland, in order that we may form some opinion of its advantages and disadvantages as compared with our own.

Slough, 7th January, 1871.

** We will attend to our correspondent's wish.

THE PROPAGATION OF SCARLET FEVER.

SIR,—Dr. Cordwint denies that scarlet fever spreads by personal propagation, while he admits that yellow fever may thus be propagated. In my opinion, no other disease is so obviously and extensively dependent on emanations from the sick as scarlatina. All its features are calculated to spread its virus through every channel. The breath carries its more recondite infective into the air. The saliva swallowed, carries it into the intestines, and hence into the drains, while its special tendency to the kidney, does the same by the urine; and, last, if not more important than all, the fine, light, dried up epithelial scales of the skin are exactly suited to be wafted on every wind to any indefinite distance. No other disease desquamates like scarlatina. In small-pox, the sequestra are heavy and do not take flight. In typhoid fever, the skin is not sufficiently implicated to be a very fertile source of infecting matter, the eruption there being in the bowels; and hence we have much more control over typhoid than over scarlet fever, in circumscribing its range. Dr. Cordwint's doctrine, therefore, is full of danger. Our means of confining the disease within limits are beset with all manner of difficulty; but if we are influenced by his views, we may as well abandon all precaution, and adopt the Mahomedan "Kismet" as our creed. Dr. Cordwint is most unhappy in his illustration, because if there is one fever which does not always depend on personal communication, it is yellow fever, and yet he singles it out as an example in support of it. I think there can be no doubt that the subtle agent which produces yellow fever is produced by the influence of heat and moisture causing a recombination of the decomposed elements into the morbid matter that produces the disease. A ship goes into the neighbourhood of low coasts, indented with numerous lagoons. Her crew is sent in boats up some river, and, in spite of quinine wine and flannel, yellow fever breaks out among them. There is no personal emanation here, it is entirely paludial. But it soon becomes personal, and, as in the *Eclair*, carries off a third of the ship's company, including all the officers but one. Now this, of course, raises the question, whether if one morbid poison can be caused by spontaneous chemical action, why not any and all of other forms which produce specific effects in the human frame. Sporadic ague is a thing unknown in this neighbourhood. We often get imported cases from Sheerness: but a patient of mine, living in a large airy house overlooking our public park, had several successive attacks of pure ague. She had never been in an ague district. Forty or fifty yards in front of the house, in the park field, was a spring which made a small marshy spot not twenty yards square. I got the authorities to drain this spot, and my patient had no more ague. I feel certain that a pool, unconnected with drains, receiving the dejecta from an isolated house, was the origin of two cases of typhoid which happened in that house, one being fatal. The people slept in a room over this pool, with only the boarded flooring between them, the under apartment being the cart house. No other cases occurred in the district, nor was the disease prevalent at the time. Under these circumstances, I am prepared to allow the possibility of a spontaneous evolution of even so specific a virus as that of scarlatina. It must have originated in some combination of inorganic elements, and, if once, why should not the process be repeated. I know this is contrary to Dr. Wm. Budd's views, but I do not see how the admission of this idea does away with our obligations to prevent the personal emanations from the sick, or to admit the highly contagious character of this and other diseases in the same category.

I am, etc.,

PAUL W. SWAIN.

DR. MILLER (Eye) will find that his request has received attention.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, Dec. 24th; The New York Medical Record, Dec. 29th; The Boston Medical and Surgical Journal, Dec. 29th; The Madras Mail, Oct. 31st; The Shield, Jan. 7th; The Birmingham Daily Gazette, Jan. 9th; The Oxford Chronicle and Berks and Bucks Gazette, Jan. 7th; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. J. Matthews Duncan, Edinburgh; Mr. T. H. Bartleet, Birmingham; Mr. P. C. De la Garde, Exeter; Mr. Young, London; Mr. R. Renfrew, Helensburgh; Dr. Hyde Salter, London; Mr. J. C. Roope, London; Mr. Fairlie Clarke, London; Mr. Lloyd, London; Mr. H. B. Condy, London; Mr. James Crocker, Wetherby; The Secretary of the Pathological Society; Dr. Cobbold, London; Mr. Husband, York; Dr. E. Headlam Greenhow, London; Mr. F. Churchill, London; Mr. Hodgson, Brighton; Mr. Brunton, Redditch; Mr. West, Birmingham; Dr. Blake, Bedford; Dr. Meryon, London; Dr. Balthazar W. Foster, Birmingham; Dr. Swanton, Bawtry; Mr. MacNamara, Dublin; Mr. Lee, Hammersmith; Mr. Greenway, Plymouth; Dr. Ford, Chulmleigh; Dr. Barclay, London; Dr. Nicolson, Portland; Dr. H. C. Stewart, London; Mr. E. C. Board, Clifton; Mr. J. B. Curgenven, London; Mr. Black, Bath; Dr. Taylor, Camberwell; Mr. Spencer Watson, London; Mr. J. Holland, Prestwich; The Secretary of the Hunterian Society; Dr. Tuke, Cupar; Mr. A. Crespi, Leicester; Dr. A. Graham, Weybridge; Dr. Elliott, Hull; Dr. C. Roberts, London; Mr. R. Parker, Orleans; Mr. H. Morgan, Lichfield; Mr. Brookes, Shrewsbury; etc.

LETTERS, ETC. (with enclosures), from:—

Dr. George Johnson, London; Mr. Joseph Lister, Edinburgh; Mr. William Mac Cormac, London; Mr. A. Haviland, London; Messrs. Robertson and Scott, London; Dr. A. Pullar, London; Dr. Falconer, Bath; Messrs. J. and A. Churchill, London; Messrs. Cox and Co., Brighton; Dr. Basham, London; Our Dublin Correspondent; Dr. Gavin Milroy, London; Dr. T. J. Aubin, Jersey; The Secretary of the Clinical Society; The Surgical Registrar of the London Hospital; Mr. Reginald Harrison, Liverpool; Surgeon-Major Saunders, London; Messrs. Whitfield and Sons, Birmingham; Mr. C. T. Vachell, Cardiff; Dr. S. Crompton, Manchester; Mr. D. K. Jones, Beaumaris; Dr. F. J. Brown, Rochester; The Secretary of the Pathological Society; Dr. Heywood Smith, London; Mr. J. D. Roberts, London; Dr. J. B. Pitt, Norwich; Dr. G. B. Whiteley, Cannes; Mr. Whitford, London; Mr. Henry Lee, London; Mr. E. Garraway, Faversham; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Dr. W. Ogle, Derby; Dr. Mapother, Dublin; The Secretary of the Obstetrical Society; etc.

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By CAMPBELL DE MORGAN, F.R.S.,

Surgeon to the Hospital.

Cancer of the Tongue.—Abdominal Wound, with Protruded Omentum and Bowel.—Femoral Hernia.—Hæmorrhoids.

THERE are several cases of interest at the present time in the surgical wards, one or two of which I have selected for my lecture to-day.

The first case to which I will allude is a man in Forbes Ward, who was admitted November 22nd for cancer of the tongue, which was first noticed between three and four months ago as a small abrasion on the right side, caused, as he thought, by friction against a decayed tooth. There was, on admission, an irregular ulcerating sore, with raised edges and central longitudinal furrow, situate on the edge and dorsum of the tongue, extending forwards to within half an inch of the apex, and projecting by its whole surface beyond the level of the surrounding healthy tissue; the cervical glands were not enlarged. As is the case in cancer of the tongue, the disease had spread rapidly from the spot in which it had first occurred, but uniformly from this spot, and not in patches with healthy portions intervening, as is usually seen in syphilitic affections of this organ.

The important question in this, as in all cases of lingual cancer, is, what can be done? Well, if the organ be extensively involved, and the neighbouring glands affected, as they are sure to be, but without very severe suffering, leave the patients alone; or, if need be, apply caustics to the sensitive ulcerated surfaces, or divide the lingual nerve. At the best, you must regard an operation as, in most cases, a relief from, or a preventive of, pain.

There is no organ in the body in which epithelial cancer takes a more rapid course than in the tongue, and statistics make one doubt whether in the majority of cases life is lengthened at all by operation, while in incomplete operations it is often undoubtedly shortened. Where, however, there is much suffering, an operation is often of the greatest value, even when the affection of the neighbouring glands precludes the notion of more than temporary benefit. Even if life be not prolonged, still it may be passed in comparative ease.

Now as to the mode of operating; if chloroform be not used, and the body of the organ be not largely involved, I prefer removal by cutting out, for, although there may be greater hæmorrhage, yet, the patient being able to assist by position and by keeping the mouth open, the bleeding vessel can, as a rule, be taken up soon; but under chloroform, the patient cannot thus aid the operator, and then hæmorrhage may be alarming. It is said that, by the use of the *écraseur*, bleeding is lessened considerably. In the present case, the action of this instrument was too rapid to produce this effect, and the lingual artery spouted, but was soon stopped; still, in other cases where it has been used slowly and so long a time as twenty minutes has been taken for the division of the organ, hæmorrhage has occurred to an excessive extent.

One disadvantage in the *écraseur* when applied through the opening of the mouth, is this: that the wire tends to work obliquely, and not vertically, through the base of the tongue, and is thus liable to slip, so as to leave some of the affected part behind. Even when, as in the present instance, large needles are introduced as guides to the course of the *écraseur*, they are apt to be pushed forward, tearing their way through the tissue of the tongue. To avoid this, a better plan, and one which I regret I did not adopt in the case before us, is to make an incision into the mouth between the muscles in front of the hyoid bone; in this way, the wire can be passed between the anterior bellies of the digastric muscles and the muscles which pass from the hyoid bone to the tongue, without danger to any vessel, and can there be worked from below so as fairly to cut through the thickness of the tongue. In this case, the sublingual gland is diseased, and, as this cannot be easily removed, I shall apply to it strong caustics, as well as to the posterior edge of the wound in the tongue.

There is one feature characteristic of operations on the tongue which is very noticeable; it is this: that, however large the wound made, in twenty-four hours it will be greatly diminished, and healing will rapidly progress. No structure heals so quickly as the tongue, and this, too, in spite of its being frequently moved in swallowing and speaking; the cause being, as I believe, the perpetual washing away of all discharge by the saliva.

Another case of interest is that of a man admitted on Dec. 3rd, with two penetrating triangular-shaped wounds, one in the right inguinal region, the other in the right thigh on the inner side of the vessels. A little blood was oozing from each, but from the upper wound a small knuckle of slightly congested, but otherwise uninjured intestine, and a small piece of omentum, protruded. These were returned, the wounds washed with chloride of zinc lotion and dressed in the ordinary way, and a good dose of opium given. The frequency with which we meet an early repetition of an unusual case is well known. You saw recently a corresponding injury under Mr. Hulke's care—a small wound in the abdomen with protrusion of omentum and bowel. The patient died in a few days of peritonitis, and such will, I fear, be the fate of my case. The prognosis is, indeed, generally unfavourable. May it be that unhealthy matter is introduced through the weapon not being clean, or through the introduction of substances from the clothes? In these cases, as often after operation for hernia, an insidious form of peritonitis is apt to supervene; there is no great complaint on the patient's part of pain or otherwise; but still the pulse is accelerated; the breathing becomes thoracic; the face looks drawn; there is tenderness on deep pressure upon the abdomen; and, as was remarked to me by Mr. Hulke, the temperature in such cases is not raised, but, on the contrary, lowered. This was the condition of my patient yesterday and this morning, and death will, I anticipate, ensue; sometimes it occurs in twenty-four hours, in other cases from three to four days, or longer, from the onset of these symptoms. This man is being treated by small doses of opium and calomel combined, administered by the mouth frequently—the best remedy, in my opinion, in such cases.

A third case to which I will draw your attention is one of femoral hernia of long standing, for which a truss has been worn. The patient states that the rupture has been down several times before, but has been easily returned until the last descent, two days ago, after which symptoms of strangulation soon followed. There had been pain about the tumour and frequent vomiting of stercoraceous matter, and, as taxis failed, she was forthwith submitted to the cutting operation. One unusual feature existed in this case; namely, the sac was of great thickness—more than one-eighth of an inch—closely surrounding a coil of moderately congested intestine, and containing but a few drops of dark coloured fluid; whereas one would rather have expected a thin sac containing a moderate quantity of light-coloured fluid. This condition is explained by the fact that, during the first weeks of the existence of the hernia, there had been inflammation of the sac, for which she was leeches, and treated for inflammation of the inguinal glands. She is taking now frequent and small doses of opium; and at the present time, more than fifty-six hours after operation, there is no bad symptom.

In my younger days, a large number of cases died, and, I believe, on account of the treatment adopted. It was customary in all cases where the gut was at all congested to give castor-oil soon after operation. It is now usual to substitute opium for the oil; and this is a sound change for the better. When a joint is wounded, we do not seize hold of it and flex and extend it, but keep it quiet; so in injuries to the intestines we ought not to excite peristaltic movements, but keep them in check. Opium will do this, and more; for, besides subduing the muscular movement, there is the soothing of irritation here, as elsewhere, produced by this drug. After operation for hernia, the inflamed bowel returned into the peritoneal cavity is a source of greater danger than the wound itself. That the peritoneum will recover from very large wounds, is seen in cases where ovariectomy has been performed. It is when, in addition to a wound, there is a diseased organ present, as the kidney, or liver, or the patient is worn out by exhaustion from pain or vomiting, or, which in hernia cases is more common, inflamed intestine is returned into the abdomen, and acts as a source of irritation, that the danger is immensely increased. Another source of danger in days gone by, which you should be careful to avoid, was the placing of a pad of lint over the wound, and confining it by means of a bandage for some days. In many cases, the blood and exudation from the wound became decomposed, and this unhealthy matter found its way readily into the peritoneal cavity and inevitably caused low peritonitis. This plan would not be so injurious now that we use antiseptics, but still I would advise you not to allow the first dressing to remain more than from twelve to eighteen hours, and to be careful afterwards, should suppuration take place, to allow free egress for the matter, and use antiseptics thoroughly. Hernia, gentlemen, claims from all of you your serious attention. Cases occur at all times and in all places, and you will be called upon to treat them at once promptly and prudently. Remember that no class of cases presents greater variety. Each case may prove a fresh test of skill and judgment.

The last case which I will bring before you is one of hæmorrhoids. A man was admitted some days ago in an extreme state of anæmia and

debility, so much so that his mental powers were greatly impaired; he was suffering from large internal piles, which had no doubt been the cause of much hæmorrhage. This, however, he did not admit, but owned only to having *occasionally passed a little blood*. Now this is a point for you to bear in mind; patients will often, through neglect or otherwise, underrate the hæmorrhage which attends this disease. Not long ago, a gentleman called on me suffering, as it seemed at first sight, from a small pile, which might be treated with acid satisfactorily; he said he had occasionally passed a little blood with his stools, but not much, and thought little of that symptom. On requesting him, however, to bear down, a large mass of hæmorrhoids passed through the anal orifice, accompanied by a gush of blood as from a large artery. It is therefore unsafe to take a patient's word on this subject; but you must examine him carefully, and, whenever you see any hæmorrhoidal tumour, with or without much vascularity, advise the application of nitric acid or ligatures, as may seem most fit, at once. Of these two modes of treatment, I prefer tying in extensive or very vascular tumours to the application of acid. As the former method is now employed, there is not the pain which in times past attended it. Drawing the tumour well down and cutting through the mucous membrane where it is reflected on to the anus, and, if need be, prolonging the cut towards the upper part of the tumour, taking care, however, to keep parallel to its inner face—you apply a ligature firmly and as high as you can reach. This preliminary section reduces the part to be tied to so small a limit that the loop on the ligature would hardly encircle a crow quill. There is no danger of hæmorrhage, for the vessel lies towards the free surface. Each tumour should be treated in this way; the strangulated masses should then be cut off, the stumps with the ligatures attached should be returned, and a suppository of opium introduced into the bowel. There is very little after suffering; it may be necessary to give opium to keep the bowels quiet, but seldom to allay pain. By this mode, a permanent cure is effected, and at the time of operation any loose folds of skin, which remaining are apt to ulcerate and irritate, can be snipped off. When time is of importance, the application of the strong nitric acid may be preferred. It might be safer, too, in patients with pronounced disease of the kidneys, or with phthisis. In minor cases, also, where there is rather a varicose state of vessels than actual tumour, the acid answers well. In using the acid, you must be very careful not to touch the true skin. I prefer either of these methods to the third plan of treatment, namely, cutting away after compressing the base of the tumour by flat forceps, and then applying the actual cautery, or removing by the cautery. I do so for the reason that hæmorrhage does sometimes follow this plan of operating. It has, I know, been practised successfully by some surgeons, but still there is this risk, and as yet I see no reason for forsaking the other method. Pyæmia is said sometimes to be set up by the ligature, but this has never happened in my experience.

A few words as to the after-treatment; the patient must be kept in bed or on the sofa for six or seven days, and for seven or eight days without an action of the bowels, and during this time he should have a spare diet. Then some purgative medicine should be taken so as to cause a watery evacuation, and thereby avoid pain or distension of the newly cicatrised surface; and the action may be aided by a full enema gruel and oil.

ON THE HEALTH AND METEOROLOGY OF NEWCASTLE AND GATESHEAD DURING THE YEARS 1868 AND 1869.*

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THE registration of diseases has been carried on under the auspices of the Northumberland and Durham Medical Society since January 1864. Reports based upon the returns have also been regularly issued and published. For the first four years of this period, the table of diseases was limited to certain of those which appear to involve a morbid condition of the blood; but in January 1868 it was extended and altered, so as to comprise all diseases—general, constitutional, and local—as well as cases of injury and of accident; the schedule being the same as the form which was recommended by this Association at its annual meeting in 1867. For the first four years, also, the returns were contributed by practitioners engaged both in public and private practice. As, however, this plan was found to be uncertain, in January 1868 the returns were limited to the public medical practitioners, or those in charge of the Union and other charitable and public institutions. While,

therefore, the returns of the first four years were contributed from a wider area of observation, in value, for purposes of comparison and of deduction, they are far exceeded by those of the last two, because such were obtained from a certain and from an unvarying source.

In observance of the regulations respecting the time allowed for papers, this communication will be limited to a series of statistical statements obtained by the collation of the returns for the years 1868 and 1869. It is to be carefully remembered that all the statements have reference to the public practice only of Newcastle and Gateshead. The calculations also have been made upon the computation that the estimated population of Newcastle-upon-Tyne, in the middle of the year 1868 was 127,701, and in the middle of the year 1869 was 130,503; while that in Gateshead, in 1868, was 40,041, and in 1869, 42,928.

The total of the new cases of disease and injuries occasioned by accident observed in the public practice of Newcastle in the year 1868, amounted to 16,059; and in 1869, to 17,084; and in Gateshead, in 1868, to 4665; and in 1869, to 6075. Allowing for the increase of population, the new cases of sickness in Newcastle, in 1869, were 673 in excess of those in 1868; and in Gateshead, in 1869, 1074 in excess of 1868.

The total of the seizures from diseases dependent upon a morbid condition of the blood in Newcastle, in 1868, amounted to 3445; and in 1869, to 2540; and in Gateshead, in 1868, to 945; and in 1869, to 1013—in Newcastle, the number for 1869 being 905 under that for 1868; and in Gateshead, the number for 1869 being 68 over that for 1868.

Small-pox in both towns has been almost absent. In Newcastle, in 1868, only 4 cases were returned; and in 1869, 5; in Gateshead, in 1868, 2 cases; and in 1869, 3. In Newcastle, the cases were imported ones—those of foreign sailors, from vessels arriving in the river Tyne. Small-pox in Newcastle in the years 1864 and 1865 prevailed epidemically. In 1864, the returns, which during that year and the three succeeding ones were contributed by private as well as by the public practitioners, contained 262 cases; in 1865, 167; in 1868, 38; and in 1867, 17. The wide-spread frequency of the disease in the early months of 1864, was followed during the same summer by a decline; and, in the winter of 1865, by a second augmentation—not, however, of long duration. From multiple observation, the value of previous vaccination was forcibly exemplified. Of 75 cases never vaccinated, the eruption was confluent in 54—rather over two-thirds—and fatal in 28, or 37 per cent.; and of 91 cases previously vaccinated, the eruption was confluent in 17—less than one-fifth—and fatal in 2, or a little over two per cent.—nineteen times less severe than in those never vaccinated.

Scarlet fever in both towns was prevalent in both years. In Newcastle, in 1868, 586 cases were recorded, with 44 deaths—a percentage of 7.5; and in 1869, 423 cases, with 25 deaths—a percentage of 5.9. In Gateshead, in 1868, there were 189 cases, with 20 deaths—a percentage of 10.6; and in 1869, 121 cases, with 10 deaths—a percentage of 8.3.

Measles, in both towns, in both years, was never much in power. In Newcastle, in 1868, 210 cases were returned, without a death; and in 1869, 174 cases—4 fatal; and in Gateshead, in 1868, 15 cases—recovery in all; and in 1869, 62 cases—1 fatal. In the first six months of the year 1869, 129 cases occurred in Newcastle, and in the last six, 45; whereas in Gateshead, in the first six months, no case was recorded; and in the last six, 62, of which 35 occurred in the month of December.

Whooping-cough was thus returned: in Newcastle, in 1868, 190 cases, with 7 deaths—a percentage of 3.7; and in 1869, 342 cases, with 13 deaths—a percentage of 3.8; and in Gateshead, in 1868, 16 cases, with 1 death; and in 1869, 90 cases, with 1 death. During the first twenty-seven weeks of 1869, no case of whooping-cough was returned in Gateshead.

Diphtheria was thus reported: in Newcastle, in 1868, 2 cases—1 fatal; and in 1869, 3 cases—recovery in all; and in Gateshead, in 1868, 1 case—fatal.

Croup was thus recorded: in Newcastle, in 1868, 21 cases, 2 fatal—a percentage of 9.6; and in 1869, 16 cases, 2 fatal—a percentage of 12.5; and in Gateshead, in 1868, 6 cases, 1 fatal; and in 1869, 4 cases, recovery in all.

Diarrhoea and dysentery, in both towns, were never in either year in much force. In Newcastle, in 1868, 893 cases of diarrhoea were returned, with 13 deaths—a percentage of 1.5; and 59 cases of dysentery, with 6 deaths—a percentage of 10.2; and in 1869, 708 cases, with 11 deaths—a percentage of 1.6; and 80 cases of dysentery, with 5 deaths—a percentage of 6.2; and in Gateshead, in 1868, 257 cases of diarrhoea, with 10 deaths—a percentage of 3.9; and 14 cases of dysentery, without a death; and in 1869, 302 cases of diarrhoea, with 4 deaths—a percentage of 1.3; and 45 cases of dysentery, without a death.

Asiatic cholera, in both towns, in both years, was unrecorded.

The continued fevers were recorded to the following extent. In Newcastle, in 1868, 125 cases of continued fever were returned, with 1 death

* Read in the Public Medicine Section at the Annual Meeting of the British Medical Association, in Newcastle-upon-Tyne, August 1870.

—a percentage of 0.8; 578 cases of typhus fever, with 58 deaths—a percentage of 10.04; 36 cases of enteric fever, with 7 deaths—a percentage of 19.5; 12 cases of relapsing fever, without a death; and 263 cases of febricula, without a death; and in 1869, 81 cases of continued fever, with 4 deaths—a percentage of 4.9; 246 cases of typhus fever, with 28 deaths—a percentage of 11.4; 66 cases of enteric fever, with 9 deaths—a percentage of 13.7; and 274 cases of febricula, without a death. In Gateshead, in 1868, 36 cases of continued fever were returned, with 1 death—a percentage of 2.8; 115 cases of typhus fever, with 4 deaths—a percentage of 3.5; and 21 cases of enteric fever, with 10 deaths—a percentage of 47.7; 1 case of relapsing fever, ending in recovery; and 140 cases of febricula, without a death; and in 1869, 42 cases of continued fever, without a death; 90 cases of typhus fever, with 5 deaths—a percentage of 5.6; 35 cases of enteric fever, with 13 deaths—a percentage of 37.2; and 223 cases of febricula, without a death.

Under bronchitis and kindred affections of the chest, in Newcastle, in 1868, 1632 cases were recorded, with 62 deaths; and in 1869, 2056; with 110 deaths; and in Gateshead, in 1868, 293 cases, with 12 deaths; and in 1869, 857 cases, with 27 deaths.

Under phthisis, in Newcastle, in 1868, 709 cases were recorded, with 119 deaths; and in 1869, 795 cases, with 100 deaths; and in Gateshead, in 1868, 204 cases, with 20 deaths; and in 1869, 270 cases, with 22 deaths.

The total of the deaths from all causes in Newcastle, in 1868, was 728, and in 1869, 736; the number for 1869 being 8 under that for 1868, the population for the two years having been rendered equal.

The total of the deaths from all causes in Gateshead, in 1868, was 101, and in 1869, 99; the number for 1869 being 9 under that for 1868, the population for the two years having been rendered equal.

The total of the deaths from diseases dependent upon a morbid condition of the blood in Newcastle, in 1868, amounted 181, and in 1869, to 113; and in Gateshead, in 1868, to 46, and in 1869, to 40.

The fall of rain in Newcastle, as recorded at the Literary and Philosophical Institution, in the first quarter of 1868, was 4.75 inches; in the second quarter, 4.28 inches; in the third quarter, 6.14 inches; and in the fourth quarter, 10.5 inches—making a total of 25.67 inches for the twelve months. In the first quarter of 1869, the fall of rain was 4.99 inches; in the second quarter, 7.07 inches; in the third quarter, 6.16 inches; and in the fourth quarter, 10.55 inches—making a total of 28.77 inches for the twelve months. The total rainfall for the year 1868 was 3.10 inches less than that for the year 1869. The increase was chiefly in the second quarter, when 2.79 inches more rain fell in 1869 than in 1868.

The foregoing statements link together the years 1868 and 1869, and represent the health of Newcastle and Gateshead during this period. The malignancy or intensity of certain diseases, in comparison of the deaths with the seizures, has also been exemplified. The entire absence, or the limited influence, of certain diseases, and the wide extended power of others, has also been exemplified.

The statements and calculations have been made from authenticated returns, contributed by many actual observers, and are not the expression of any single individual—hence their value and significance. Facts of worth, procurable only by the registration of diseases, have been obtained, by which the outbreak of future epidemics may be estimated, their rise and fall carefully watched, and their virulence valued.

To the contributors of the returns—to whose kindness the success of the system of methodical observation and registration is due—and to the Northumberland and Durham Medical Society, under whose fostering care the plan has been developed and carried on, an expression of grateful acknowledgment may not be deemed out of place. With hearty willingness and generosity, the Northumberland and Durham Medical Society heretofore has defrayed the expenses of printing, issuing and collecting the returns, and has undertaken to do so to the end of the present year, but not longer, it having been found that the funds of the Society are insufficient for the publication of the transactions in addition. If, therefore, other means be not forthcoming, whereby the expenses can be defrayed, it will be obligatory for the registration of disease in Newcastle and Gateshead to be abandoned—an alternative which it is ardently to be desired may be averted. The course will be taken with much reluctance.

Is there no way by which the plan may be continued by one of the public departments of the State? Is it possible for the influence of this section of the British Medical Association, or the Association itself, to be exerted in such an effort, either by a representation to the Royal Sanitary Commission, or directly to the President of the Poor-law Board, the Registrar-General, or the Medical Officer of Health attached to the City Council?

ABSTRACTS OF LECTURES

ON THE

GEOGRAPHICAL DISTRIBUTION OF DISEASES IN ENGLAND AND WALES.

Delivered at St. Thomas's Hospital, London.

By ALFRED HAVILAND, Esq.

IV.

The Geographical Distribution of Phthisis (in Females) in the fifty-three Counties of England and Wales.

AMONG the counties having a high mortality, we see on the phthisis-map that the insular county of Anglesey has the highest death-rate—36.7, or 9.0 above the average. This is coincident with free exposure to the sea-winds, especially the north-west. Proceeding southwards, we see the county of Carnarvon having a death-rate of the fifth degree; and, again, the group extending from the middle of Wales to the south, and comprehending the counties of Montgomery, Cardigan, and Carmarthen, has also a mortality of the fifth degree. On referring to the cancer and heart disease maps, we find that all these counties have a very low death-rate from these causes—the fifth, or the lowest but one. We found this fact coincident with elevated site, free exposure to the full force of the prevailing winds, and a hard geological formation belonging to the Silurian rocks. In England, Lancashire and Derbyshire rank next in the scale of mortality; these two counties belong to two different watersheds—Lancashire to the western, and Derbyshire to the eastern. Lancashire is freely exposed to the full sweep of the westerly and north-westerly gales, especially where the country rises towards the lofty carboniferous limestone of the great ridge which separates the river-system of Yorkshire from its own. We must remember that Lancashire is skirted towards its western or sea boundary by the warm and fertile new red sandstone. In the maps of cancer and heart-disease, we see that this well exposed county has a very low mortality.

Derbyshire has a death-rate from phthisis of 33.2, or 4.5 above the average. It has two geological characters. To the north is the elevated country of the Peak and its neighbourhood, composed of carboniferous limestone shale and coal formations on their eastern flank. Its most elevated valleys, however, are sheltered; but they are cold and damp, and the climate is rainy. In cancer, we found a low mortality; although in heart-disease we found that the axis of the valleys was not favourable to free air-flushing, and coincident with this a high mortality. The southern part of Derbyshire is formed of the new sandstone. It is warmer and more protected; and, moreover, the Trent here begins to collect its waters and become fully formed. The districts will point to any difference that change of soil and altitude produces in the death-rate.

The counties having the fourth degree of mortality are those which are immediately contiguous to those of the fifth degree: for instance, Yorkshire, Nottingham, Leicester, Cheshire, Flintshire, Denbigh, Pembroke, and Glamorgan; and the three groups in the south-east of England—viz., the eastern group, containing Suffolk and Essex; the south-midland, composed of Buckingham and Bedfordshire; and the southern group of Sussex and Hants. These last counties are all more or less exposed to the direct influence of the east wind. The south of Bucks contains a portion of the elevated chalk ridge—the Chiltern Hills—which forms the northern boundary of the Thames basin; and its northern half is characterised by the clays, Oxford and others, of the oolitic series. Chalk, marl, and gault form the soil of the Vale of Aylesbury. Bedfordshire is also characterised by the chalk ridge of the Chiltern Hills, which are called the Luton and Dunstable Downs. It crosses the county in a north-easterly direction, and separates the basin of the Thames from that of the Humber. The geological relations will be better seen when we discuss the districts. The southern high mortality group, again, we see characterised by lofty chalk ranges and clay valleys. Hampshire, especially to the east of the county, where the chalk downs form the southern boundary of the Thames basin, is exposed to easterly winds; and, again, the south downs are swept by the east and south-east winds. To the north of these downs, we find gault and the Wealden clays characterising the valleys of Sussex.

Recapitulation.—1. The north-western counties, the Welsh, and the midland counties, which have the most elevated ridges of hard unproductive carboniferous limestone, or Silurian or other older formations, have the highest mortality. Anglesey, the most exposed of all the

counties, has the highest death-rate. This is the reverse of what obtains in the geographical distribution of cancer and heart-disease.

2. The south-eastern counties, which have a high mortality, are characterised by elevated chalk-ranges, and valleys in which the oolitic, the cretaceous, and wealden clays predominate.

3. The eastern counties, having a high mortality, are exposed in aspect to the easterly winds; and the lower lands are characterised by clays of the Eocene period, especially the London clay.

5. We therefore see that high, dry, chalky sites, exposed to the free access of the east winds, are accompanied by a high death-rate from phthisis; and that the same death-rate obtains in the cold, damp, clayey valleys, which these chalk-ranges shelter.

I shall now proceed to the next series of county groups—those of low mortality.

In the distribution of heart-disease, we found a high mortality coincident with sheltered site; and again, in cancer, it was shown that the riparial districts of rivers, which ran through protected valleys, and seasonally flooded the adjoining counties, had a high mortality. These localities were well defined in both maps; and the counties that contained them were coloured with the blue characteristic of the proportional high mortality. For instance, the well sheltered counties of Hereford and Worcester, the one characterised by its fertile warm old Devonian formation, and the other by its not less fertile new red marl, had a high mortality, which was coincident with these counties being surrounded on all sides by lofty ranges, excluding the direct influence of the sea-winds. In the phthisis-map, we see these counties coloured so as to represent almost the lowest degree of mortality, and, with Warwickshire and Radnor, forming an oblong group, bisected by the Severn vale. Coincident with this low mortality is a sheltered site, lying on the warm and highly ferruginous red sandstone. Wiltshire, again, and Berkshire, are seen in the heart-disease map as high mortality counties; and we found within them that the districts most protected had the highest death-rate. These counties are coloured red in the phthisis-map. Devonshire, with its deep and fertile valleys and frequently flooded rivers, had a high mortality from both cancer and heart-disease. In phthisis, we find this county standing out conspicuously from its low mortality; and it is accompanied by Somersetshire, which, as I have before remarked, has no low mortality districts in the heart-disease, except where there is free access to the prevailing winds up the rivers Parrett and Avon.

Lincolnshire has a low mortality from phthisis, and forms an exception to the general rule, which at present seems hidden in obscurity. We must, however, remember that ague is prevalent in this part of England; and it has been said that this disease is seldom associated with consumption. A more significant coincident fact is the one that the greater portion of this land has been reclaimed from the sea. It is well known that many sites, although damp with sea-water, enjoy a remarkably low mortality from phthisis. That part of the North Riding of Yorkshire which we have seen to be protected by the oolitic range which forms its sea-boundary, and is traversed by the valleys of the Rye and Derwent, has an exceedingly low mortality; and so has the group to the north of Northumberland, both of which areas are coloured blue in the heart-disease map.

The remarkably low mortality of the two counties Middlesex and Surrey, which lie in the basin of the Thames, is another contrast to what obtains both in heart-disease and cancer. Middlesex we know to be chiefly composed of London clay; and a greater portion of Surrey belongs to the same formation. One county is protected by the northern boundary, and the other by the southern, of the Thames valley.

Recapitulation.—1. All the counties having the fifth or nearly the lowest death-rate from phthisis have been previously shown, in my last two lectures, to possess well sheltered areas, which in cancer and heart-disease were characterised by a high mortality.

2. Coincident with low mortality from phthisis in the counties to the west of 1° W. longitude, were sites having a formation consisting of either old or new red sandstone.

3. Lincolnshire forms an exception to the rule of exposed sites being coincident with high mortality from phthisis. The prevalence of ague has been said to account for some decrease in the mortality, but the fact that the sites have been reclaimed from the sea is more worthy of attention.

4. The protected counties of the North Riding and Northumberland have a low mortality from consumption, and the reverse from heart-disease.

I shall now proceed to examine the districts, and endeavour to show how they carry out the facts that have been noticed in the divisions and counties.

[To be continued.]

NOTES OF A LECTURE ON HAY-FEVER.*

By E. SYMES THOMPSON, M.D., F.R.C.P.,

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THERE are persons of both sexes who are subject to violent sneezing and all the miseries of "cold in the head" during relaxing weather, when shut up in close rooms or heated theatres, who assert that they have "hay-fever", and declare, moreover, that hay-fever has nothing whatever to do with hay. There is also a form of "transient catarrh" which comes on for an hour or more every morning, which is very annoying to those who suffer from it, sometimes falsely called by this name. Hay-fever or "grass-asthma" is, however, quite distinct from these affections, and arises from a peculiar and unexplained idiosyncrasy, like that which makes some persons afraid of mushrooms or tomatoes, mercury or opium. Most of us have met with strange cases of this kind. I know an instance in which honey acts like a poison; another in which strawberries produce serious symptoms; and a third in which mutton in any form cannot be taken, though the patient is in no other respect a dyspeptic.

The effect of the inhalation of powdered ipecacuanha upon the nasopulmonary mucous membrane of some persons is analogous to that of the pollen of grasses upon others. The case is recorded of a chemist's apprentice so sensitive to this drug, that he was often seized with sneezing when at the top of the house whilst the ipecacuanha-root was being powdered at the bottom.

Of the various grasses which have the power of exciting the disease, the sweet-scented vernal grass (*Anthoxanthum odoratum*) is the most common. Certain varieties of *Holcus*, *Alopecurus*, *Nardex*, etc., seem to possess a similar irritant quality. All these are found to contain benzoic acid; and the presence of this acid has been regarded as the source of the evil. But in these days, when so much is said about "germs", the idea that minute particles are the source will be more readily received. If the sensations of the sufferers may be taken as a guide, it appears certainly as if there were sharp particles sticking in the throat, eyes, and nose; and the sneezing, coughing, defluxion, and bronchial spasm, seem to be Nature's effort to remove the evil. Some are more sensitive to the influence of one kind of grass than of another. The grasses that ripen early are, as a rule, more irritating than those that flower late in the season. The second crop of hay has rarely any effect; this may be partly due to the fact that it is usually mown before the flowers ripen. The irritant grasses are found to grow upon rich soils. As the poorer soils become more rich from cultivation, these grasses become more wide-spread, and thus the resulting malady becomes more general also. In the vicinity of the Bristol Channel, the grasses seem to be especially virulent; less so in the eastern parts of England; and in Ireland hay-fever is seldom heard of.

The increased frequency of the malady may be accounted for in another way. The present age being one of over-strain of the nervous system, disorders having relation to morbid excitability of nerve are in the ascendant; just as affections of the vascular and digestive organs, gout, apoplexy, etc., consequent on over-indulgence in the pleasures of the table, were usual in the days of our grandfathers.

Instead of enumerating the parts affected in this disease, and giving a general description of the symptoms, three cases will be described, illustrative of three forms of the disorder. The living pictures thus drawn will, it is thought, give a better notion of its main characters than a systematic account of the disorder. Thus, too, an opportunity is given of introducing, in the words of the patients themselves, some of those casual yet not unimportant minutiae as to cause, character, and spread of the disease, which are not of a sufficiently positive nature to be laid down with authority. Herr Phœbus, in his work on *Spring Catarrh*, mentions that, of fifty-eight well marked cases, symptoms referable to the nose were present in all; to the eyes, in forty-eight; to the mouth and throat, in twenty-nine; head, in twenty-six; chest, forty-five; whilst forty-three suffered also from general constitutional symptoms.

CASE I.—"The first time I distinctly remember an attack of hay-fever was in June 1850, when about ten years old. I was playing in a hay-field, and thought that I had suddenly caught a violent cold. But this supposed cold vanished on going to London next day. Although much the same thing happened in one or two successive years, it was never acknowledged that I had hay-fever till 1859, in which year, as in 1860, the attack was especially severe. From that time till 1864, when the dangerous weeks of June were spent at the seaside, the attack recurred annually, in various degrees of discomfort. London seems the safest air during the hay-season. The glare of the streets brings on

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sneezing, but not the intense irritation of throat, ears, and palate, which is with me, I believe, indicative of the actual presence of the vernal grass. I feel first a sensation of heat and fullness in the eyes, passing along the lids and over the eyeball; slight redness; and discharge of tears. This state gradually increases till acute itching and smarting occurs, with the sensation of small points sticking upon and darting into the eyeball. The eyes become extremely inflamed, and discharge a thick fluid. As the day advances, the symptom increase, and the conjunctiva becomes quite oedematous, relief being alone gained by rest in a dark room. Such, too, is the irritation of the throat and palate, that I try to scratch the latter with the tip of my tongue; and on bad days I feel as if this region had been sprinkled with Cayenne pepper. There is a sense of fullness after sneezing, and of derangement about the back of the throat and palate, accompanied by a most trying itching in the Eustachian tube, which induces a desire to move the back of the tongue and thrust the fingers into the ears; but, as the part affected cannot be reached, the itching can scarcely ever be alleviated. Sometimes the sneezing is very severe. I have sneezed thirty times consecutively, and several hundred times a day. The sense of overfulness of head, with throbbing of temples, after a sneezing fit, is very distressing. When the attack is most severe, I get a tight cough, and expectorate a little mucus full of small grey pollen-like specks, which I have thought to be the mischievous grass-seeds. During the attack, I feel restless and uneasy; I have the 'fidgets' distressingly, especially if the room is close; any worry or annoyance is intolerable. The skin is hot and dry; the pulse weak. If I only see my 'coldified' swelled face in the looking-glass, or even think vividly of the illness, all the symptoms come on at once; and I have heard of a sensitive Irish lady who, on seeing a picture of a harvest-field, was seized with strong symptoms of hay-fever. The severity of the attack is a good deal dependent on my state of health. Iron, arsenic, strychnine, have no effect; nor has belladonna or hydrocyanic acid. Gauze veils have proved the most effectual preventive. The eyes are comforted by zinc ointment, or by bathing with rose-water; and the irritable skin of the face, by oatmeal-water or milk. Gargling with cold water, sucking ice or iced milk, allays the painful irritation at the back of the throat. Cigarette-smoking gives temporary relief. The grass at Clevedon is to me especially irritating. I find that the attacks come on at different times in different localities. In the South of England, or near London, it begins in the last week of May or first of June; in Switzerland, soon after the middle of May; but in Yorkshire, where I usually reside, I always look for it between the 10th and 20th of June, and no mistake."

CASE II.—The second case of which I give a few details is one in which the general and bronchitic symptoms were the most marked result of the irritant. The patient, an elderly country clergyman, writes: "I cannot recollect when the first symptoms appeared—I think, when I was about twenty, and lived near a trout-stream; and, being fond of fishing, was often on its banks. I recollect that violent sneezings annoyed me; and, on my return home, the frequent remark was made, 'What a cold you have!' Many years passed before the affection assumed the particular characters of hay-fever, and the attacks became periodical. They then came on as regularly as the hay-season returned, directly after being subjected to its influence. To show that this was not the effect of nervous apprehension, I may mention that I remember instances, and one in particular, in which the affection suddenly came on at a time when the source of the evil was unknown; and my vicinity to a hay-field was not ascertained till some time afterwards. I was at the seaside, and much puzzled to account for the attack, but at length discovered a small hay-field behind the house. From my father I inherited a tendency to spasmodic asthma; and so sensitive am I to cold, that a slight draught of air, even turning the leaves of a book suddenly and rapidly under my nose, would be sure to bring on a fit of sneezing. The pollen of the sweet vernal grass is the poison whence all my miseries spring; and I think, too, some other grasses, when in flower, have a like effect. The smell of roses and violets has never affected me, but that of the white clematis and evergreen honeysuckles so much that I have been obliged to remove them from my grounds. Dry hay does not always affect me; but on one occasion, in the depth of winter, I unpacked some furniture bound up in hay, and had, in consequence, an attack of hay-asthma lasting two days. Sunlight on a white road, or dust of any kind, affects the eyes, nose, mouth, and palate, distressingly. My early attacks were characterised by sneezing, with defluxion from the nose and eyes; the membrane lining the lower part of the forehead, and the eyes, being most affected. But, as time advanced, this membrane became less sensitive, and that which lines the bronchial tubes is affected instead. The attacks assume more the characters of asthma, being worse after dinner and at night. I have had severe bronchial attacks following exposure to hay; but the last two years I

have been almost free, and begin to flatter myself that I am growing out of my old complaint. Certainly it has not been aggravated by increase of years, as might have been expected. The late Governor of Bengal, who for twenty years had suffered from hay-fever in England, was free from it till his return from India. He mentioned the case of a friend who was never free except when at sea. George the Fourth suffered from hay-fever; and I have been told by a doctor, for my consolation, that he never knew any one below the degree of a gentleman, to be a sufferer from this complaint. I happen to know a young washerwoman who is a sufferer; and she has gentle blood in her veins, being a descendant of a bishop of the diocese. It is rare to find the haymakers complain, though I have met with two or three slight cases among them. I have never found any remedies effectual, though I have tried many. Iron, arsenic, quinine, iodine, bromides, prussic acid, ether, chloroform, strychnia, opium, belladonna—these are not a tithe of the drugs tried. The greatest relief obtained has been gained under a homœopathic doctor. It was curious that his remedies did no good at a distance; but, when I was under his eye, I gained immediate relief. This puzzled me for a long time, but I think I have now found the reason. This doctor lives at the seaside, at a place remarkably free from grass, and the specially noxious grasses are apparently altogether absent. I have found that I get well when in his neighbourhood, when I do not consult him or take his tinctures. In parts of Gloucestershire and Somersetshire, the grass seems to me peculiarly noxious."

CASE III.—"My first attack came on in a hay-field, when about six years old. I was brought home with supposed influenza; but it was not till I was eighteen that the annually recurring cold and asthmatic breathing was attributed to hay. It always commenced when grass was in flower, varying with the lateness of the season. The cause is unmistakably the pollen of one kind of grass (the *anthoxanthum*); but wheat seems sometimes to cause it. Dry hay has no effect; I could sleep on a truss of it. Haymaking time is the worst time, as the pollen is then shaken about; but sunrise, the coldest hour of the twenty-four, is the worst time. Warm weather relieves me. A cold cloudy day, with ungenial wind, is most trying. Good drenching rains seem to lay the demon low, and greatly relieve my misery. In 1832 and 1844, the rains saved me from an attack, and I had none this year. My malady begins with itching, smarting, and irritation in the corner of the eye. The lids become so hot and swollen, that I cannot close them, or, if I do, they stick together. It passes to the nose and palate, which feel as if sprinkled with Cayenne pepper. The whole region above and behind the palate and back of the nose feels as though mashed up together; it is so swollen and undefined. And between the brain and its bone-box is a sensation like that one feels after a long run, when one's shirt, wet with perspiration, clings to the skin. My taste and smell are altogether lost. I sometimes sneeze a hundred times a day; and, when out in the sunshine, I have sneezed so frantically as to lose my hat, and have hardly possible time to find it again between the paroxysms. I would do anything to stave off the first morning paroxysm. When I feel it coming, I seize my pocket-handkerchief and continuously blow my nose, breathing through the mouth; and sometimes I can only sleep when turned on my side with the handkerchief stuffed up my nostrils. All these symptoms, however, are pastime, in comparison with the asthma. When the chest is set fast with spasm, I struggle for breath, clutch convulsively at the back of the bed or arm of the chair, and can gain no rest save on my hands and knees, or with my head on the table. A dreadful sense of suffocation comes on, with a hard frequent cough. My face and lips are of a deep purple; I gasp for breath, till at length I sink down exhausted and half-insensible. If roused by stimulants, I recover only to undergo a renewal of suffering. These attacks come on at night, and subside as morning approaches. Nitre-papers give some relief to the asthmatic spasm, but not till the air of the room is choking from the concentrated fumes. Smoking Espic's cigarettes, made of stramonium and Latakia tobacco, gives some relief; so does stramonium alone, or tobacco. But this last is useless, unless pushed to collapse. As the pulse fails, the face blanches, and the cold sweat stands on my forehead, miserable as is the sensation of collapse, it is Paradise to the agonies of suffocation. Happily, the disease diminishes as I get older—partly, doubtless, from greater caution and improved management; chiefly from avoiding the cause, and resorting to London or the seaside before the hay ripens. London is now so large that, when in the centre of the city, one is far from a hay-field. Thirty or forty years ago, I have, when close to the Bank, frequently smelt the hay in the fields at Islington. The sea-air relieves wonderfully, if the wind is off sea. I have started for Brighton suffering so frightfully that everybody in the coach believed I must have died, and so did I; yet within twenty-four hours I was well, save from remaining weakness."

A form of severe catarrh is occasionally met with, frequently recurring, but lasting only two or three hours. It usually begins and ends with sneezing and profuse watery defluxion from the eyes and nose. In some cases, an asthmatic element is superadded, and dyspnoea occurs; but, in the uncomplicated form, the malady is nothing more than transient nasal catarrh. The usual time of access is the early morning. It commences on rising, and ceases soon after breakfast. It occurs in summer only, but does not appear to be dependent, like hay-fever, on any definite irritant in the air. Though in no way dangerous, it is often extremely inconvenient. A gentleman, who once consulted me on account of this malady, had travelled all over the Continent, and remained some months at sea, yachting in the Mediterranean, and had several times changed his residence from low to high ground, and from sheltered to bleak situations, in the hope of escaping from his enemy. Several physicians, whom he had consulted, treated the matter very lightly, regarding it as ordinary catarrh; yet every summer it attacked him, and recurred nearly every morning, and sometimes in the afternoon, obliging him to leave the table or the society of those with whom he might be. Airy rooms and a cold bath act beneficially; and sal ammoniac has proved valuable. Very small doses of opium or ether, repeated several times in the hour, effectually control the affection.

Asthma is, as we all know, a wonderfully variable malady. One sufferer finds smoke and town-air the cause of a paroxysm, while another finds in it the cure. To some, the air of brick-fields is most irritating; to others, it is as soothing balm. The form of asthma developed by hay or grass-seed is described by Dr. Salter as a "mild form of asthma"; but two instances that have come under my observation have been among the most severe. Indeed, it is difficult to exaggerate the horrors of the paroxysm. Certainly tobacco, if used early in the attack, or as a preventive, is of real value, though less, it has seemed to me, in this than in other forms of asthma. At the commencement of the paroxysm, a slight thing will determine its advance or retreat; but, when fully established, tobacco must be pushed to collapse before it relieves. Slade's stramonium cigarettes, or the compound of stramonium with Latakia tobacco, known by the name of Espic's "Fumigateur Pectoral", seems often to give relief, without producing the dreadful nausea that tobacco by itself does to the uninitiated; while to the initiated, or those accustomed to smoke freely, it may not be possible to produce nausea from smoking and even swallowing the smoke; and it is this that makes tobacco so useless a remedy to the majority of asthmatic men.

For the cure of this troublesome complaint, patients have subjected themselves to all manner of remedies. Strange theories as to the diathetic state which gives rise, or is supposed to give rise, to hay-fever, have led to equally strange methods of cure. The skin, the nervous system, the stomach, have been in their turn attacked; but the conclusion at which we arrive, from the study of all these methods, is, that we cannot treat hay-fever *en masse*. We must treat each case individually, according to its cause and character. It is clearly impossible to keep every one between the ages of five and forty confined to the house (*haus-arrest*) for two months in every year. We cannot make everybody a sailor who shows symptoms of the complaint, or even ensure all sailors being far out at sea for the dangerous time. People in England had better go to the north of Scotland while hay is made in England, and return before hay-time in Scotland comes; or go to the centre of a large city, or to the seaside. Yet there are many who cannot do this; and, for such, general and local measures, to which allusion has been made (and there are many others which naturally suggest themselves as meeting the plain indications present in each case), may be relied upon to mitigate the evil, and in a certain proportion of cases to effect a cure. The various attempts that have been made to remove by specifics the abnormal sensitiveness which leads to the development of disease have failed to maintain the reputation which has been promised by their promoters. The foregoing cases recorded serve to point to this conclusion, while they indicate in an unmistakable way that it is the grass which causes the malady, and not, as has been so frequently maintained, the more general causes of catarrh.

INCONTINENCE AS A SYMPTOM OF RETENTION.

By JONATHAN HUTCHINSON, F.R.C.S.,

Surgeon to the London Hospital, etc.

INCONTINENCE of urine is every now and then the first symptom of retention, and occurs without the patient having been conscious of any distension. I have recorded in vol. iv of *London Hospital Reports* a remarkable instance in which this occurred from enlarged prostate,

and was misunderstood both by the patient and his advisers; and another almost parallel one has just been under my care. It is, however, I think, decidedly rare for this symptom to occur in connexion with organic stricture. Now and then it occurs after extensive damage to the perinæum, with rupture of the urethra and cicatricial stricture.

A boy aged 12, whom I attended a year ago with Mr. Horton of Stepney, on account of ruptured urethra, for which we had to make free incisions, now suffers from an impassable stricture and constant incontinence of urine. He is obliged to wear an apparatus. Although I have failed, after most patient trials, in my endeavours to get an instrument through the stricture, yet he has no great difficulty in emptying the bladder; and incontinence is his only trouble.

A young lady aged 16, whom I saw not long ago with Mr. Mundie of Dalston, had had during several years occasional incontinence of fæces, in consequence solely of distension of the rectum by an enormous hardened mass.

In March 1869, a solicitor consulted me respecting one of his clerks, whom he suspected of malingering. The young man sometimes stayed away from the office on account of ill-health, and had asserted, in explanation, that he suffered from great difficulty in passing urine, and also from incontinence. These two conditions seemed to his employer to be incompatible. On the following day I examined the supposed idler, and found that he had a tight stricture in the bulbous urethra, which I could not pass. As there could be no doubt that his symptoms were real and in relation with the stricture, and as they were somewhat unusual, it seems worth while to state them in detail. Four years previously he had suffered from gonorrhœa, which was only cured after several months' treatment. After this he had no gleet whatever, and a year later he married. During the last year he had experienced great and increasing difficulty in micturition. The stream had become small and twisted; the act was attended by much forcing pain in the abdomen; the lower part of his abdomen was, he said, always uncomfortable, and he had much aching in the back. Sometimes he felt so nervous and weak that it was impossible for him to go to business. During the last two months he had had several attacks of incontinence. These had occurred sometimes during sleep and sometimes whilst walking. His bladder was full at the time he came to me; and after my unsuccessful attempt with catheters, he immediately voided two pints in a much larger stream than he had been accustomed to for months. My interpretation of his symptoms was that his bladder habitually retained a considerable quantity, thus causing him discomfort, and perhaps having already induced renal mischief. It is easy to see how insidiously serious disease might in this way be brought about. In one of the cases alluded to above, the patient had fatal disorganisation of the kidneys, induced before any obstruction in the urethra was suspected. So misleading is the symptom of incontinence to the patient himself, who never dreams that whilst his urine escapes freely there can be any accumulation, that it becomes of the greatest importance for medical men to be on the alert as regards it.

A SUGGESTION FOR THE PREVENTION OF INFECTION.

By JAMES STARTIN, F.R.C.S.,

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THE rapid increase and extension of small-pox, scarlet fever, and other infectious diseases at the present time, not only in those localities which may be designated their habitual haunts, but also within the wards of general hospitals, and through the agency of public vehicles, laundries, etc., induces me to offer a suggestion, which, during twenty-five years, I have been in the habit of recommending for arresting contagion in diseases of the skin. According to my knowledge, the proposition has not hitherto been employed against fevers and other sources of infection or contagion, although I am aware that it has been used in the arts for sweetening, deodorising, or disinfecting wine-casks, dairy-utensils, etc. The suggestion consists in the simple expedient of fumigating beds, clothing, closets, carriages, etc., with sulphurous acid gas, according to the following "ready method". In the case of disinfecting beds and bedding, five to fifteen minutes before the patient enters the bed, or during his removal whilst it is made, a copper warming-pan, containing a few live embers, on which a teaspoonful or two of flowers of sulphur have been thrown, is to be introduced between the sheets, and passed to and fro until the combustion of the sulphur is completed, when the pan is to be withdrawn; and, after the lapse of a few minutes, the patient may enter the bed, when, should the fumes still prove too stimulating for his respiratory organs,

these vapours may be intercepted by holding a loosely folded damp handkerchief before the nose and mouth until they have subsided. In localities where a copper warming-pan is not procurable, a common wicker hand-basket, or a small hamper, containing an old iron saucepan or flower-pot, or basin, in which a few hot cinders have been placed, may be substituted. This, like the warming-pan, must be put beneath the bedclothes, and moved about during the ignition of the sulphur, until the sulphurous acid gas has sufficiently permeated the linen, etc., to be disinfected.

It will be perceived that this latter plan of using the sulphur may be adapted to fumigating closets, carriages, passages, and, indeed, to the vacated chambers of the sick; the only precautions to be borne in mind being to take care that the quantity of sulphur or heat of the live embers be not too considerable, and that the wickerwork is of sufficient height and capacity to prevent the articles fumigated from being burnt in the operation.

With regard to disinfecting the clothing, articles of dress, etc., these should be lightly sponged over or sprinkled with water containing a little *well mingled* milk of sulphur, in the proportion of a teaspoonful of sulphur to each pint of water. The articles should be then ironed by means of a flat iron heated to a sufficient temperature to volatilise the sulphur, but not to burn the clothing. Of course repetitions of this process will be required, according to the extent and duration of the infection.

The daily journals have lately contained an account of a cabman who was fined £3, the cost of disinfecting his cab, after the carriage of a small-pox patient. By the means suggested, of sponging the cab-lining with the sulphur and water, and afterwards using the hot flat iron, and perhaps adding the basket-fumigation, about as many pence would be the cost of the disinfection.

It has been urged as an objection to the above procedure, that it might prove injurious to health, from the noxious vapours of carbonic oxide given out. I need scarcely observe that this objection falls to the ground if the directions given be faithfully carried out; as, if the live embers be properly incandescent, and not smoky, the sulphurous acid gas only will be produced.

CLINICAL MEMORANDA.

FATAL PULMONARY HÆMORRHAGE.

THE case of fatal pulmonary hæmorrhage reported by Dr. Bradbury in the last number of the JOURNAL for January 14th, is one of much interest, and Dr. Bradbury's opinion as to the source of hæmorrhage is doubtless the true one; viz., that it occurred through rupture of a dilated branch of the pulmonary artery in a cavity. Fatal hæmoptysis from this cause is not so rare, however, as seems to be generally supposed. I have myself examined *post mortem* twelve cases of the kind which have occurred at the Brompton Hospital within the last three years, and some account of which I gave at the Pathological Society in November last (see BRITISH MEDICAL JOURNAL, November 19th). In Dr. Bradbury's case, I presume the cavity was probably of old standing; and with a vessel crossing its wall superficially, it would present all the conditions necessary for the occurrence of aneurism. I am unable to agree in the view that atheroma of the vessel may have been the primary cause of its dilatation. (Rokitansky refers to atheroma as occurring almost exclusively in the aortic system of vessels.) Atheromatous disease of the pulmonary artery or its branches is of very rare occurrence. I did not observe it to exist in any of the cases above referred to. Local loss of support (as pointed out by Rokitansky) from gradual exposure of the vessel from one side, attended or not with ulcerative erosion of its wall, and the continued patency of the vessel, are the really essential conditions favouring the production of such aneurisms. I am inclined to think, therefore, that the difference between Dr. Bradbury's case and others resembling it, consists only in the peculiar position and isolation of the cavity, together with its obscure formation. The fact of its not having been of tubercular origin would not seem to be of much real importance as affecting the production of fatal hæmoptysis.

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Nottingham Place, Jan. 1871.

A HALF-SOVEREIGN IMPACTED IN THE LARYNX.

A CASE similar to that recorded by Mr. H. Smith in the BRITISH MEDICAL JOURNAL of January 7th occurred to me at the York Hospital some years ago. It was before the laryngoscope had become available or the diagnosis of such cases, and the difficulties attending my case

show the need for the use of the instrument almost as much as Mr. Smith's shows the advantages of it.

A man was struggling to recover from his wife a half-sovereign which she held in her hand. Hoping to hide it more effectually, she put it into her mouth. The husband, suspecting this, but not seeing it, seized her suddenly by the throat to make her disgorge it. She was immediately attacked by alarming dyspnœa, and was brought to the hospital almost unconscious and quite unable to explain the cause of her distress. It was not quite clear whether the dyspnœa was due to the presence of the coin in the windpipe, or to some injury to the cartilages of the larynx produced by the rude grasp of the husband.

A careful examination of the pharynx and larynx was made with the finger and probe, and a probang was passed into the stomach, but no foreign body could be found. As the dyspnœa continued as urgent as ever, and as it was deemed probable that the coin had found its way into the trachea, tracheotomy was performed in order to explore that tube, and, if possible, relieve the distressed breathing. The operation at once effected this latter object, and proved that the obstruction must be in the larynx. After awhile a further and more searching examination was made, but with no better results than before. On the third day the patient suddenly discovered the coin in her mouth, but could not explain whence or how it came there. The tube was at once withdrawn from the trachea, and she made a rapid recovery. It is quite impossible to say what was the position of the coin, but there can be no doubt that it was in the larynx, as the patient had been able to eat solid food without any difficulty. I ought to add that the patient was, when first seen, placed on a table with her head and shoulders hanging over to allow the coin to fall out if free.

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TREPHINING.

THE perusal of the case reported by Mr. Thorp of Todmorden in the JOURNAL of Dec. 17th, reminds me of a similar case which I attended some months ago. A number of labourers were employed in cutting down timber in the demesne of the Earl of Bantry. A large branch was cut off, but remained suspended to the branches of adjacent trees. When the trunk was being removed, the branch was loosened and fell with great force on the head of a young man, the sawn end being the first point of contact. He was immediately rendered insensible. When I saw him, in about twenty minutes, he was convulsed; the eyelids were closed, but greatly distended and ecchymosed; there was bleeding from the nose and mouth, mixed with froth. There was no wound of the scalp, but evident flattening of the skull over the parietal bone for an oval space about two inches long and one-and-a-half broad.

After some days the symptoms of concussion passed off and consciousness returned, and he recovered perfectly; but the depression is still in the bone. The question of trephining was considered, but it was decided to wait and watch the symptoms.

Bantry.

J. R. SWANTON, M.D.

A SOURCE OF LEAD-POISONING.

As the columns of the JOURNAL have been already opened to two freshly discovered sources of lead-poisoning, perhaps I may be allowed to state a third possible source. A young engineer applied to me the other day for relief from symptoms which were clearly those of lead-colic. He had the well-marked sallow complexion characteristic of this disease—the blue line on the gums, the constipation, and the attendant griping pains in the abdomen. After careful cross-questioning, I elicited that he used a large quantity of white lead in fixing the joints in the iron-work of the engines. This is at all events a probable source of poisoning by lead, and one which I have not seen noticed in books.

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53, Harley Street, Jan. 1871.

SPONTANEOUS FRACTURE OF A RIB IN COUGHING.

SEEING the notice of a case of fractured rib caused by coughing in last week's JOURNAL, and that it is so rare, I send the following which occurred in my practice here.

G. B. is a bleacher, between fifty and sixty years of age, short in stature, and of a full relaxed state of body. For some years past she has been troubled with a convulsive cough and shortness of breath. One morning in January of last year, while sitting by the fireside, she was seized with a fit of coughing (not so severe as sometimes), during which, as she expressed it, something gave a great crack in her side, like breaking a stick, accompanied with a severe pain, almost stopping her breath. She at once said to a relative sitting near her that one of her ribs had

broken, which of course was laughed at ; but the pain and difficulty of breathing continuing, I was soon sent for. On examination, the injury was easily diagnosed ; the broken parts of the rib sliding past each other on pressure, the peculiar friction feeling, and the severe pain, causing her to cry out with almost every motion of the chest, left no doubt that one of the ribs (as far as I remember, about the lowest near the middle on the left side) was fractured by severe coughing. As she is in the habit of holding her sides with her hands when coughing, the double pressure from within and without would more readily cause the accident.

J. ALEXANDER.

Leslie, January 1871.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. MARY'S HOSPITAL.

A CASE OF HYPERTROPHY OF THE HEART, WITH DOUBLE TRICUSPID (?) MURMUR.

(Under the care of Dr. SIEVEKING.)

M. A. B., a fair, slim girl of eleven years of age, was admitted into St. Mary's Hospital under Dr. Sieveking's care on November 4th, 1870, complaining of pain in her left thorax, to which she had been especially subject since last January, and which was much increased by exertion. She complained of much dyspnoea on slight exertion, but was able to lie on her left side, and did not require to be much elevated in bed. She had always been delicate, and regarded as an invalid by her mother since she had scarlet fever at the age of two years. The examination of the chest showed the impulse of the heart to be very visible and somewhat undulating, extending on the left side from the nipple to the seventh rib, the apex-beat being most distinct in the sixth intercostal space, and somewhat externally to a vertical line drawn from the nipple. The area of the heart's dulness was considerably increased chiefly in a horizontal direction ; the cartilages of the fifth, sixth, and seventh ribs on the left side were very prominent, and a loud systolic murmur was noted over the left apex, fading off in distinctness in the direction of the aortic and pulmonary orifices. There was marked epigastric pulsation, and the heart-sounds were distinctly audible to the right of the sternum. The mitral murmur was also distinctly audible at the inferior border of the left scapula, and to a considerable extent along the spine. The patient complained of pains in her knees and some of her joints, but there was no other history of rheumatism ; the feet were stated to have been swollen, but there was no albuminuria.

On her admission, it was noted that the second sound was inaudible at the apex, but clear at the second left intercostal space. The pulse was 134, respirations 36, and temperature 98.5. With regard to family history, it may be mentioned that her mother is in the enjoyment of good health, but that her grandmother died of heart-disease, and her mother's sister is labouring under it. The diagnosis was that a case of hypertrophy of the heart and insufficiency of the mitral orifice had to be dealt with. It is unnecessary to go into the details of treatment, except to say that, although there was no amelioration in the physical condition of the heart, the rest and regimen caused a subsidence of all painful symptoms, and the patient came to feel comparatively well.

REMARKS BY DR. SIEVEKING.—Dr. Sieveking observed that the point of special interest consisted in the fact that, on the 15th November, stethoscopic signs were discovered which had been persistent since. In addition to the mitral systolic murmur, a double murmur was noted to the right of the xiphoid cartilage, at the junction of the fifth and sixth costal cartilages of that side to the sternum. There was a marked impulse at this spot ; the impulse appeared to subside in moving to the left of the sternum, and then again became tumultuous below the left nipple. The mitral murmur faded away towards the sternum, and a distinct circumscribed systolic and diastolic murmur then became audible over a space not much larger than the orifice of the stethoscope. There was no marked venous pulsation in the neck, and the radial pulse ranged from 100 to 124. The second normal heart-sound was continued and distinctly audible at the second left and right intercostal spaces—most sharply at the left side, over the pulmonary artery. Both at the aortic and pulmonary orifices a soft systolic murmur was heard ; but, as this increased steadily in approaching the left apex, and the patient was thin, the impression of observers was that the sound was the result of conduction from the mitral orifice. The patient remained in

statu quo up to the time of her discharge on the 3rd December. Dr. Sieveking felt it to be difficult to resist the conclusion that the case was one of double tricuspid murmur. A regurgitant murmur at that valve is not of frequent occurrence ; but most auscultators have met with it. An obstructive tricuspid murmur is spoken of in books as a theoretical possibility, but it does not appear that it has been actually met with in practice.

ST. GEORGE'S HOSPITAL.

BLEEDING TUMOUR OF THE THIGH.

(Under the care of Mr. PRESCOTT HEWETT.)

WE are indebted to Mr. J. W. Haward, Surgical Registrar, for the notes of the following interesting case.

C. L., aged 8, was admitted on October 10th, 1870. A small tumour was first noticed on the right thigh four years ago, attention having been called to the part by a fall. The parents asserted that there was certainly no congenital tumour. When first noticed, it was of the size of the tip of the finger, and of a bluish tint. It gradually increased. In December 1868, it was seen by Mr. Square of Plymouth, who punctured the tumour, and established its vascular nature. The puncture healed ; but a year afterwards the lower part of the tumour sloughed, and allowed constant oozing of blood, for which pressure, injection of tannic acid, etc., were unavailingly tried. The patient was previously quite healthy, but had now become very pale and weak. Her family is healthy.

On admission, she was exceedingly exsanguine, and the pulse was very weak and compressible. On the inner side of the right thigh, rather below the apex of Scarpa's triangle, and about one-and-a-half inch above the superior border of the synovial sac of the knee, was an ulcerated surface, surrounded by soft, irregular, and dark purple tissue beneath the skin. The tumour was not prominent nor fungating, but occupied the place of natural tissue, and was rather depressed where ulcerated. It was two inches long and an inch-and-a-quarter wide. From the ulcerated surface there constantly oozed thin venous blood. There were no enlarged glands in the groin.

A consultation was held, and it was determined to lay the tumour open, and act according to the condition found. Under chloroform, Mr. Hewett accordingly laid open the tumour and turned out some coagulated blood. This exposed a cavity the walls of which were formed of naevoid tissue, from which the oozing took place. The diseased tissue, which extended very nearly to the limits of the synovial membrane of the knee-joint, was dissected out, and a healthy surface left, which was stuffed with blue lint, over which a pad and bandage were applied. She lost no blood at the operation. The tumour was examined by Mr. Pick. Under the microscope, a section showed a thin membrane, consisting of vascular channels, separated by fibrous tissue. There was some fever for three days following the operation, but she rapidly improved in condition. No more bleeding took place ; the wound granulated ; and she was discharged well on November 20th.

MATER MISERICORDIÆ HOSPITAL, DUBLIN.

TYPHOID FEVER : URÆMIA : DEATH.

(Under the care of Dr. HAYDEN.)

Typhoid Fever : Convalescence on the thirty-sixth day : Uræmic Symptoms seven days later, with Albuminous Urine : Defect of Urea, and Reduplication of the first Sound of the Heart : Improvement on the fourth day : Return of Uræmic Symptoms three days later, and Death on the following day (fifty days from date of first illness.) [Reported by Mr. Wigmore, Resident Pupil.]—Joseph R., aged 19, assistant to a mercantile establishment, and temperate, was admitted into hospital October 27th, 1870, being the sixteenth day of illness. The symptoms were those of aggravated typhoid, with severe and obstinate diarrhoea, ileo-cæcal tympany and tenderness, copious eruption of rose-spots, very weak and rapid pulse, and occasional muttering delirium.

The diarrhoea was successfully combated by means of small doses of spirit of turpentine, chloroform, ether, and laudanum, and a succession of small blisters in the right iliac fossa. The tongue became clean ; appetite returned ; pulse became slow ; patient slept well, and was out of bed on the 16th November, secretions being then natural, and urine free from albumen ; cuticle desquamating extensively over neck and chest, though not preceded by sudamina. He was now allowed to be out of bed during the greater portion of every day ; walked freely about the ward, and continued apparently to improve, with the following exceptions ; viz., his appetite was morbid, and his manner childish and odd.

On the seventh day of convalescence he vomited after taking food, and on the following day was unable to leave his bed or retain a par-

ticle of food, owing to excessive irritability of stomach; pulse 120, and weak; tongue coated. He had constant sighing.

On the ninth day from date of convalescence, the symptoms were much aggravated, and accompanied in the course of the night by delirium.

On the tenth day, his condition apparently admitted no hope. His face was pale and death-like; the pupils widely dilated; respiration unequal and suspicious; the pulse rapid, flickering, and barely perceptible. There was complete loss of consciousness and muttering delirium. The first sound of the heart was reduplicate, apparently by resolution into the impulse and the valve-clic element—the three sounds thus heard following in rapid succession, and reminding the listener of the distant sound of a horse galloping upon hard ground.

Throughout the next day no change occurred, death being apparently at hand, and life merely sustained by small doses of brandy repeatedly administered. Urine was passed involuntarily, and apparently in full quantity; it contained a large amount of albumen, and was of specific gravity 1005.

On the eleventh day the patient rallied and became conscious; the pulse was now perceptible, but still very weak, and 120. The pupils were less dilated; his aspect was better, but the stomach still refused to tolerate even the smallest quantity of food or medicine, with the exception of a little brandy.

Next day his condition was unaltered, except as regarded the heart, the sounds of which were less distinctly triple, and approximated more the normal character. The urine now showed a specific gravity of 1020, and less albumen.

On the thirteenth day the pulse was again so weak as not to be registerable at the wrist. The triple sounds of the heart were again well pronounced; the pupils were dilated; the breath cold, and respiration irregular. Towards evening, complete loss of consciousness supervened. Urine was passed in large quantity, of specific gravity 1025, and free from albumen, but loaded with lithates.

On the fourteenth day no pulse was perceptible; his countenance was pale; the pupils dilated. He sank gradually, and died at 8 P.M.

RICHMOND SURGICAL HOSPITAL, DUBLIN.

NOTES OF CASES OF ANEURISM.

(Under the care of Mr. WILLIAM STOKES.)

CASE II.—*Large Femoro-Popliteal Aneurism. Treated first by Pressure, and subsequently by Temporary Deligation of the Femoral Artery: Amputation: Death.* (From Notes taken by Mr. George Hetherington.)—J. R., aged 36, was admitted under Mr. Stokes' care on the 17th of last August, suffering from a large pulsating tumour occupying the lower extremity of the thigh and popliteal space. He had been a soldier in the 67th Regiment, and in 1860, serving in the Chinese expedition, received a gunshot-wound in the knee. The ball entered a little externally to the tuberosity of the tibia, and, he stated, was never extracted. He recovered, and was enabled to join his regiment. For some years he had been working as a labourer. Three weeks previously to his admission, when going home after his day's work, he felt "something jump in his ham", and then first observed the tumour. At the time of his admission, he suffered greatly from pain, referred to the outside and lower part of the joint. The tumour was large, and occupied the inner side of the lower third of the thigh and the popliteal space. Auscultation revealed a loud *bruit*, which was completely stopped when the femoral artery was compressed. On Monday, the 22nd August, Mr. Stokes commenced the treatment by compression, using alternately Read's and Carte's artery-compressors—the former at the groin and the latter at the middle of the thigh. Read's instrument was found to be better borne than Carte's. Pressure was uninterruptedly maintained for four days and nights, at the end of which time the patient declared that he could not and would not bear it any longer. It was accordingly removed, and no difference was observed in either the size or consistence of the tumour. On September 3rd, Mr. Stokes exposed the femoral artery at the apex of Scarpa's space, passed a silver wire round the vessel, and passed Porter's clamp down on the two free ends of the wire. These were tightly fixed to the ring of the clamp. This effectually arrested all circulation through the aneurismal tumour. On Monday, fifty hours after the ligature was applied, it was removed, and there was a return of pulsation in the tumour. The tumour then commenced to increase rapidly. At a consultation, digital compression was recommended; and this was carefully kept up for twenty-four hours, the great pain in the tumour being effectively alleviated by hypodermic injections of the acetate of morphia. The digital compression also failed to modify the tumour. Mr. Stokes then determined that amputation afforded the patient the best chance, which was but a slender one. He accordingly amputated the thigh about its centre by the circular method. For some

days the patient did very well, and gave great hopes of ultimately recovering; however, pyæmic symptoms supervened, and the patient gradually sank.

On examining the tumour, the aneurism was found to be a diffused one. The artery (popliteal) was ruptured on its anterior aspect. A large mass of coagulated blood was found in the tumour. The knee-joint contained about an ounce of amber-coloured serum, otherwise the articulation was quite healthy. The posterior surface of the femur at its lower third was denuded of periosteum, and slightly eroded. There was a permanently patent condition of the aortic valves. A careful search was made for the ball which, the patient stated, had penetrated the head of the tibia and had not been extracted. It was not found. An examination of the portion of the artery where the temporary deligation had been applied, showed that no damage whatever had been sustained by any of the coats of the vessel.

LEEDS PUBLIC DISPENSARY.

TRICUSPID REGURGITATION.

(Under the care of Dr. CLIFFORD ALLBUTT.)

FOR the notes of the following case we are indebted to Dr. J. Milner Fothergill, House-Surgeon.

C. W., aged 55, a mason, with bulbous finger-ends (said to be common in his trade), came under notice on April 8th, having had an inflammatory affection in the thorax, which could never be exactly made out from the history. His breathing was somewhat hurried; pulse fast, feeble and compressible. There was no œdema, no jugular pulsation; at that time, no evidence of venous congestion. A soft blowing systolic murmur was heard only over a limited space at the base of the ensiform cartilage; there was no increased dulness over the district of the right ventricle or auricle. The diagnosis formed, from position and time, was recent tricuspid regurgitation. The small pulse was deemed to be due to a small portion only of the contents of the right ventricle being thrown forward into the pulmonic circulation, and thus transmitted by the left ventricle into the arteries. As usual, too, in primary lesions of the right side, there was that form of disturbance of the respiration which Dr. B. W. Richardson calls cardiac apnoea. "For, be it observed that the apnoea, from arrest of blood on the right side of the heart, has for its essential character a disturbance between the normal relations of air and blood. The blood inspires and expires; and the production of apnoea is as perfect and as obvious in effect when the blood is cut off from the air as when the air is cut off from the blood" (*Asclepiad*, p. 228). This condition is to be discriminated from the dyspnoea due to pulmonic engorgement from lesions of the left side. This breathlessness is not accompanied by expectoration, the effusion from distended vessels; nor, as a necessary corollary, would any bleeding, with the idea of relieving the distension of the right ventricle in pulmonic congestion, be, as Dr. Richardson has shown, of any service in the relief of the condition; for the condition of tricuspid insufficiency, as Mr. King has shown, relieves the right ventricle. When this case was under care, there was a partial loss of power in the right hand and arm, not accompanied by cramps. During the progress of the case, jugular pulsation was developed, but not to a marked extent: œdema of the extremities was not a very prominent symptom. As there was no symptom of congestion of the portal circulation, purgatives were not indicated. Rest, as absolute as possible, was imperatively insisted upon. To relieve the restlessness, belladonna was given with cinchona as a tonic; without, however, any expectation of more than relief. One day, the patient went for a walk about a quarter of a mile out and in again; this was followed by a distinct aggravation of the symptoms. Increased dulness, jugular pulsation, feeling of gastric fulness, and œdema of the extremities, resulted. The treatment was continued, with relief of the sequelæ. The prognosis was bad, the duration of life depending on the resistance of the venous walls to distension. The patient went on September 15th into the Infirmary under Dr. Clifford Allbutt. He was carefully examined by several competent persons; and Dr. Allbutt authorises me to state that at that time no murmur whatever was discoverable, and he felt inclined to classify the murmur at the ensiform cartilage, which he had previously heard, as a fugitive right side murmur. In a few days, he came out and returned home. He was, for some reason, much worse, and had orthopnoea. (Edema set in; when the legs swelled his breathing was easier, and when his legs fell his breathing was worse. He sank quietly on the 21st of October. A *post mortem* examination was made the next day. The chest alone was opened. On lifting up the sternum, a large quantity of reddish serum bubbled up from the right pleural space; about forty ounces of this were removed. The heart was then removed, opening up a large empyema on the left side, from which an equal quantity of puru-

lent fluid was baled out. The right auricle and orifices of the vena cavæ were largely dilated. On opening the right ventricle, a yellow fibrinous clot was found sticking among the chordæ tendineæ of the valve of the yielding wall. The valve of the fixed wall was contracted, imperfect, and very incompetent, it being only possible to introduce the tip of the finger as far as two-thirds of the depth of the nail betwixt it and the interventricular septum. The left side, where there had been no sound during life, revealed a thickened and rigid condition of the aortic valves; one having on it a large and firm mass, almost calcareous, in shape and size like half a Siberian crab, with a mass projecting from it, which would apparently almost close the orifice on the aortic recoil. The mitral valve was only sufficient to admit a penholder, all the chordæ tendineæ, and even the muscular prolongations, being matted together. The left auricle was somewhat dilated. These lesions had never produced any murmurs; and so late as September 15th, no murmur of the tricuspid could be heard. The tricuspid lesion was not merely secondary stretching, but essential disease, and thus established the original diagnosis. The absence of sound arising from the other lesions is only explicable on the one hypothesis, that the small current thrown forward by the right ventricle into the pulmonic circuit could pass readily through the narrowed orifices. There were none of the pulmonic congestion and expectoration during life which would have been present had the tricuspid insufficiency been merely dependent on the lesions in front. The symptoms in life all pointed to the defect in the right side. The heart was shown to the Leeds Medical Club on November 7th.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

{ TUESDAY, JANUARY 10TH, 1871.

GEORGE BURROWS, M.D., F.R.S., President, in the Chair.

ON THE DURATION OF PHTHISIS PULMONALIS, AND ON CERTAIN CONDITIONS WHICH INFLUENCE IT. BY CHARLES THEODORE WILLIAMS, M.D. OXON.

THE author commenced by stating that he used the term *Phthisis* in a broad sense, to signify consuming pulmonary disease, attended by a well-known group of symptoms, and included under it, besides tubercle, all states of the lung which tended to excavation and caseation. The object of the paper was to give some account of a thousand cases of phthisis selected from the private practice of Dr. C. J. B. Williams and the author, and to deduce the amount of influence which the conditions of age, sex, family predisposition, and origin exercised on the duration of the malady. The patients belonged chiefly to the upper and middle classes. The cases were taken from the records of those who first consulted Dr. C. J. B. Williams between 1842 and 1864—a period of twenty-two years; the ground of selection being that each case has been at least one year under observation.—*Sex.* The author, after explaining how the cases were recorded, and exhibiting certain tables, stated that 625 of the 1,000 were males, and 375 females.—*Age.* Taking the sexes collectively, 41 per cent. were attacked between 20 and 30; 25 per cent. between 30 and 40; 19½ per cent. under 20; and 13½ above 40. Considerable difference was found to exist between the two sexes as to the time of attack. Between 20 and 30, the most common period of attack for both sexes, about 7 per cent. more females were attacked than males; and, again, between 10 and 20, 11¾ per cent. more. On the other hand, after 30, the reverse was the case. Between 30 and 40, the males exceeded the females by 11½ per cent.; and above 40, by 6 per cent. The average age when attacked was, for the males, 29½; for the females, 26.—*Family Predisposition.* This term was substituted for hereditary predisposition in order to include brothers and sisters and first cousins, in addition to those of the preceding generation; the principle being to include, as instances of a disease in a family, all near relations derivable from a common stock. Family predisposition was traced in 48 per cent. of the patients—in 43 per cent. of the males, and 57 per cent. of the females. In the particulars which were given, it was noted that nearly half of the cases had only brothers and sisters affected.—*Origin and First Symptoms.* In 315 cases, phthisis originated in, or followed closely after, the following diseases: viz., pleurisy and pleuropneumonia, in 143; bronchitis, in 118; asthma, scrofulous abscesses, fistula, hooping cough, croup, scarlatina, measles, continued fevers, peritonitis, malformations of the chest, and injuries. Of the whole number of cases, 26½ per cent. were traced to inflammatory attacks (pleurisy, pleuropneumonia, and bronchitis); and of these patients, 14.2 per cent. were free from any suspicion of family predisposition. The origin of phthisis from inflammatory attacks was then

dwelt on, and the symptoms indicating the conversion of pleuropneumonia, and of bronchitis into phthisis, were sketched; and the more general recognition by medical men of their common occurrence among both upper and lower classes was strongly urged.—*Hæmoptysis* was present in 57 per cent. of the patients.—*State of Lungs.* In describing the condition of the lungs, Dr. Theodore Williams explained why he adopted the classification of *stages*, and what extent of disease each stage was intended to include. In none of the cases was the evidence of physical signs alone accepted, in all it was amply confirmed by clinical symptoms. Two-thirds of the patients were in the first stage at the first visit, 18 per cent in the second, and 14½ per cent. in the third; 14 cases presenting the signs of other diseases, on which those of consumption supervened.—One hundred and ninety-eight patients had been ascertained to have died, the mortality of those who came in the third stage being about double that of those who came in the first.—The average duration of life among the 198 who died, was 7 years 8¾ months; 21 of whom lived from 15 to 28 years. Among the 802 living patients, the average is at present 8 years 2¼ months; 246 have lived more than 10 years; 65 more than 20; 2 more than 30; and 1 more than 40 years. An account of the present state of these patients was then given; and it was shown that 72 per cent. had regained their health sufficiently to follow their occupations; while 28 per cent. were still invalids.—Dr. Theodore Williams then discussed the views of Louis, Bayle, Laennec, Andral, Fuller, Pollock, and other authorities as to the duration of phthisis, and attributed the long duration of the present cases to (1) the early detection of the disease; (2) the perseverance with which the patients carried out the various healing measures recommended to them, whether medicinal, hygienic, or climatic.—The influences of age and sex on duration were next considered, and on these points the author's statistics showed (1) that the later the time of attack, the longer was the duration, this being more marked among the males than among the females; (2) that females were, on an average, attacked four years earlier than males; and (3) that among them the duration of the disease was a year and a half shorter—the average age reached was 5½ less than among the males.—The conclusions as to the effect of family predisposition on duration were: (1) that it does not directly limit the duration of the disease; (2) that it precipitates the onset of the disease, thus shortening the duration of life; (3) that it affects females more than males. The influence of the inflammatory origin on the duration of phthisis was next considered; and the author concluded that cases arising from pleurisy or pleuropneumonia enjoyed a longer duration than the average; such extension amounting to at least a year and a half or two years.

Dr. R. D. POWELL thought that the author of the paper had correctly used the term phthisis in its broad sense. It was very difficult to classify with sufficient accuracy the cases comprehended under the term. The value of the paper, however, would have been increased if the histories of a few illustrative cases had been recorded. He would have liked to know what cases were instances of simple catarrhal pneumonia, and what of tubercle; probably, in most of the cases of recovery, there was catarrhal pneumonia at the apex with contraction and consolidation. The paper gave valuable information as to the prolongation of life where cheesy masses were present without being accompanied by miliary tubercle. In nearly all cases of recovery from phthisis, there was more or less cheesy matter left; and yet, as Dr. Williams had shown, the patients lived for several years; while, in the fatal cases, the duration of life was from 3 to 7½ years. In the *post mortem* examinations at the Brompton Hospital, where he (Dr. Powell) had found cheesy masses dispersed through the lungs, there was no general deposit of miliary tubercle in the body. If the view of Niemeyer were correct, that the presence of cheesy matter is liable to excite miliary deposit, the latter ought to have been present in some of these cases. Very few of the cases at Brompton died of acute general tuberculosis. There must then be something beyond the mere mass of diseased matter; apparently some constitutional state, hereditary or acquired. With regard to family predisposition, he thought it scarcely fair to call the disease occurring in brothers and sisters hereditary; there was rather an acquired taint, due probably to their having been placed alike in the circumstances favourable to the production of phthisis.—Dr. MARCET said that the statement that bronchitis often passed into phthisis, was one of great practical importance. The matter was difficult to decide; for certain of the physical signs of bronchitis were very like those of phthisis. He had seen at the Brompton Hospital cases of what appeared to be commencing phthisis, but which proved to be bronchitis. With regard to recovery, he said that a patient might be in apparently good health while softening was going on in the lungs. He had seen a man, seeming to be in good health, with slight cough, but whose lung was riddled with cavities; in this case, there had been hæmoptysis, and the man had had the lung-disease six or seven years.

—Dr. C. J. B. WILLIAMS said that the cases referred to had occurred in his practice, but that his son had rendered the numerous and complicated details of the records much more valuable than he could have done. Several points in the paper were of interest in their bearing on the opinions which he had formed. His impression had been that the duration of life in phthisical cases was about five years; numerical calculation showed that it was nearly eight years in the fatal cases, and more than eight in those still living. The influence of family tendency was to make the attack earlier, but not to render the course of the disease more rapid, as was commonly believed to be the case. With regard to Dr. Powell's remarks on family predisposition, he said that it again and again occurred that the members of a family were one after another attacked with phthisis, although placed in different circumstances. The disposition to disease was not always transmitted from father to son, but was in the stock; so that, when phthisis occurred in one member of a family, it might also occur in others. It had been pointed out in the paper that pneumonia had sometimes ended in phthisis; and he thought that the number of cases in which this occurred had been rather underrated in the paper. It was now much more the fashion than hitherto to acknowledge the inflammatory origin of phthisis. The doctrine was, however, nor new; it had been taught by Portal, Alison, and others, before the time of Laennec; it had also been maintained by Andral, Cruveilhier, and Broussais. He (Dr. Williams) had always advocated the opinion that inflammation was a common cause of consumption in cases where a predisposition existed, or where depressing influences were present. Bronchitis might to a great extent produce sounds resembling those of phthisis; but there were some which it would not produce, such as tubular sounds, accompanied with much wasting. This condition was especially met with in plastic bronchitis, where the bronchial secretion contained much albuminous and fibrinous matter. Cases of this kind were generally benefited by the same treatment as was good in phthisis. There was something in phthisis which required to be explained. Researches tended to show that the lymphatic system was concerned in the production of the disease; and that changed leucocytes became the basis of phthisical deposit. As to prognosis, the summary given in the paper showed that phthisis was usually chronic. Cases of acute phthisis had indeed been excluded; but these would not be more than five per cent. of the whole. The treatment in phthisis, to be efficient, must be continued, not for weeks only, but for months and even years—perhaps for life. This point should be rigorously insisted on.—Dr. ANDREW CLARK said that it was highly gratifying to see both father and son co-operating in the production of so valuable a paper as that which had been read; and both of them must have derived much gratification from the circumstances in which it was written. A great part of the paper—the statistical part—was quite unsuited for discussion. Judged by the author's standard, it was no doubt a very valuable addition to our knowledge of phthisis. But it treated only of the chronic disease; and there was no mention of the habits of the patients. The author had admitted the existence of several kinds of phthisis. It was unquestionable that the different forms had different origins and consequences, and that each responded to a special class of agencies. He questioned the statement that the course of phthisis was lengthened when it had an inflammatory origin. It was doubtless so in cases of pleuritic origin; but, in his practice, one of the most destructive forms of phthisis was that which originated in the breaking down of pneumonic deposits. The paper was a very valuable contribution; and he hoped to see the experience on which it was founded made still more productive.—Dr. THEODORE WILLIAMS, in reply, thanked the Society for the reception which had been given to his paper. In its production, he had derived great assistance from the carefully taken notes of the cases which had been kept by his father. It was not possible to establish any absolute classification of the cases under the various forms of phthisis. There had been very few *post mortem* examinations, on account of the difficulty of obtaining them in private practice; but in all that were made—about twenty—grey tubercle was found. He doubted the probability of drawing hard and fast lines between the varieties of phthisis. He agreed with Dr. Marcet as to the frequent contrast between the general health and the physical signs.

OBSTETRICAL SOCIETY OF LONDON.

ANNUAL MEETING, JANUARY 4TH, 1871.

GRAILY HEWITT, M.D., President, in the Chair.

Dr. CLEVELAND exhibited a Fœtus about the fifth month, with the cord curiously knotted round the neck, which had apparently caused its death.

Dr. PLAYFAIR exhibited a Pessary, the invention of a patient, which ingeniously combined the advantages of the stem and Zwancke's pessary, with a contrivance for easily opening the leaves.

Dr. C. KIDD read a paper on Chloral Hydrate and Chloroform in General Obstetric Practice, especially in Labour cases.—Dr. PHILLIPS had no experience of chloral in natural cases; but, during the past nine months, he had used it extensively in the puerperal state, especially in five cases of puerperal mania and two of puerperal convulsions. In four of the five cases of mania its action had been very beneficial, while in the fifth it failed to produce sleep. In one case of mania, the patient had no sleep for three days, though opium had been given; but within five minutes of taking half a drachm of hydrate of chloral, she fell asleep for four hours, and again for five hours more. In another case on the fourth day it was given in full doses, and the next day the patient was quite rational. The chloral hydrate was very suitable in the restless sleepless condition not uncommon after delivery. Dr. Phillips had seen it used extensively in abnormal labours without untoward effects.—Dr. HEYWOOD SMITH also took a favourable view of the action of chloral in puerperal affections. He narrated a case of puerperal peritonitis with vomiting, in which he had given sixty grains, repeated in three hours, with the best effect.—Dr. PLAYFAIR had found chloral of the greatest value, but thought that it was somewhat unsafe to give it in such large doses as sixty grains, repeated in three hours.—Dr. KIDD said that in labour cases the chloral seemed to be specially useful in the first stages, relieving restlessness, etc., without stopping uterine action.

President's Address.—The PRESIDENT congratulated the Society on having reached the end of twelve years of uninterrupted prosperity. During the past year, thirty-nine new Fellows had been elected, and, as Honorary Fellows, Drs. West and Arthur Farre. The Society had to lament the deaths of several members; among them, Sir James Simpson, an Honorary Fellow, who had done so much for obstetric medicine. He was endowed with an intellect of extraordinary power; a physically strong frame; a kindly, humane disposition; a largeness of heart only equalled by the greatness of his intellect; a manner winning and captivating to an extreme degree. His great character was many-sidedness. The question of amalgamation with other Societies had occupied much attention during the past year. The President believed that the Society was to be congratulated on the result. Other Societies besides the Obstetrical had found the scheme unpalatable, and the idea was finally abandoned. He was glad to be able to transmit the possessions and powers of the Society to his successor unimpaired; the Society being still free, unfettered, and able to develop its resources. The President passed in review the work of the last twelve years. Many valuable statistics had been collected as to the practice of midwifery in Great Britain, and curious information regarding practice in India. Among the subjects referred to were the essay on Obstructed Labour by Dr. Braxton Hicks; the external pressure treatment of the third stage of labour, advocated by the late Dr. Eastlake; the papers of Mr. Ellis, Dr. Kidd, and Dr. Sansom, on the use of Chloroform; the paper of Dr. Barnes on the new form of pelvic deformity, "Spondylolithesis." The Society had done much to further the usefulness of the forceps. The matter had been discussed by Dr. Tyler Smith, Mr. Harper, and other members; but the Society had still work to do in urging a further use of the instrument. The form of the forceps had been considered; and the use of sufficiently long-bladed forceps, with powerful handles, had been insisted on. Dr. Hewitt referred also to the new operation by Dr. Hicks, of bimanual version; the question of turning *versus* forceps, as elucidated by Dr. McClintock; the remarks of Dr. Hicks on craniotomy; Dr. Barnes's proposal of a new method of cutting the head into pieces by a strong *écraseur* wire; Dr. Hicks's improvement of the cephalotribe; the discussions on the Cæsarean section; the valuable contributions of Barnes and Lazarevitch as to the question of the induction of premature labour; Mr. Squire's observations on normal puerperal temperatures; Dr. Oldham's attack on the low diet system in the lying-in room; Dr. Hicks's description of "concealed accidental hæmorrhage"; Dr. Greenhalgh's remarks in favour of bringing on premature labour in cases of placenta prævia; Dr. Barnes's proposal to inject perchloride of iron for otherwise intractable *post partum* hæmorrhages; and the discussion on transfusion by Dr. Waller, Dr. Aveling, and others. Rupture of the uterus had been shown to be largely attributable to a rather narrow pelvis, in a paper by Dr. Radford. In version of the uterus and retroversion of the gravid uterus, Dr. Tyler Smith had shown that the retroflexion exists before the pregnancy. From Drs. Barnes, Wade, and Playfair, the Society had had valuable papers on Embolism, Thrombosis, and Sudden Death during and after Labour. Dr. Tilbury Fox's three valuable papers on Phlegmasia Dolens were next described. Regarding puerperal fever, the connexion between it and erysipelas had been shown by Dr. Tilbury Fox; its frequent association with scarlet fever, by Dr. Snow Beck, Mr. Mitchell, and the President. Dr. Hall Davis's paper on Puerperal Convulsions, and

Dr. Hicks's on Convulsions preceding Albuminuria, were also mentioned. Eighteen cases of extrauterine foetation had been described. Dr. Priestley had shown the importance of early removal of the secundines in cases of abortion. The question of the relation between flexions, inflammation of the uterus, irritable uterus, and the relief of dysmenorrhœa, had been frequently discussed. Ovariectomy had mainly grown into existence since the formation of the Society; twenty-three contributions on the subject had been offered. On fibroid tumour of the uterus and polypi, many papers had been read. Cancer of the uterus had been apparently advantageously treated by bromine by Drs. Routh and Wynn Williams. Dr. Little's paper on the Connexion between Difficult Labour and Alterations of Muscular Power in the Infant was a most valuable one. Mr. Squire had investigated the temperature of infants. Dr. Tilbury Fox had started a possibly very important theory as to the cause of rickets. Of malformation, upwards of fifty cases had been recorded. Lastly, the important and long continued Infant Mortality Committee, appointed at the suggestion of Dr. Arthur Farre, had come to an end; and the recommendations as to the rearing of infants, now just about to be issued by the Society, as to the necessity for improvements in penal enactments, as to the necessity for the registration and better education of midwives, which had been carefully matured by the Committee and by the Council, would, it was to be hoped, bear good fruit in the future. The President, in taking leave of the Society, thanked them for so kindly assisting him in the performance of his duties during his two years of office.

CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 13TH.

JAMES PAGET, Esq., F.R.S., President, in the Chair.

THE Annual Report of the Council was read. On the motion of Dr. DOUGLAS POWELL, seconded by Dr. SILVER, the Report was unanimously adopted.—Dr. BARCLAY moved a vote of thanks to Mr. PAGET, the retiring President. This was seconded by Dr. CRUCKNELL, and carried by acclamation.—Dr. CHOLMELEY proposed a vote of thanks to Mr. CALLENDER, the Surgical Secretary, and other retiring members of Council. This was seconded by Dr. CAYLEY, and unanimously carried.

Dr. PAVY read notes of a case of Paroxysmal Hæmatinuria, and exhibited specimens of the urine. The patient, previously in good health, was seized, after exposure to cold, with nausea, and passed urine porter-like in colour. He was sent to bed, and the urine gradually became natural. Eleven days afterwards he was again exposed to cold, and a relapse occurred. The urine in these paroxysms contained coloured granules and oxalate of lime crystals, but no blood-corpuscles and no casts of tubes. Dr. Pavy spoke of the affection as one characterised by well-defined symptoms quite distinct from ordinary hæmaturia, and said that the attacks always followed exposure to cold. He had a characteristic case just then under his care in Guy's Hospital, who could be visited by members interested in the subject.—Dr. BROADBENT referred to a case of a similar kind now under his care. In it, the albumen was not commensurate with the amount of blood. No oxalates were present in the urine—a matter, he believed, of little importance.—Mr. GANT also referred to a somewhat similar and interesting case.—Mr. THOMAS SMITH alluded to a gentleman who suffered invariably from albuminuria after eating rhubarb-tart.—Dr. GREENHOW said that all cases of hæmaturia might intermit without their being cases of intermittent hæmaturia. In eleven cases he had under his observation, all had oxaluria. Except by accident, no blood-corpuscles were found in cases of intermittent hæmaturia. Another point of interest in these cases was, that the albumen was insoluble in an excess of nitric acid.—Dr. LANGDON DOWN gave the particulars of an interesting case of the disease.—Dr. WILTSHIRE observed that a similar disease was known amongst cattle, which was believed to be due to cold, but, according to other authorities, to peculiar kinds of pasture. Two of his fellow-students had suffered from the affection under discussion; one had recovered spontaneously, and the other he believed also to be in good health.—Dr. PAVY, in reply, remarked that Mr. Smith's case was not an example of the disease. The attacks were produced by exposure to cold. There were not, he believed, always oxalate of lime crystals present. Dr. Pavy, in answer to Dr. Buzzard, replied in the negative as to whether one of his patients, who came from an aguish district, had suffered from intermittent fever.

Mr. BRUDENELL CARTER opened the adjourned discussion on Mr. Thomas Smith's case of Ulcer following Vaccination. He began by referring to a class of cases which came under the notice of ophthalmic surgeons, and in which he believed the syphilitic taint present might sometimes be due to vaccination. There was, so far as he saw, no

other way to account for it; and he himself had often been quite unable to find any syphilitic history in the parents of children suffering from apparently inherited syphilitic affections. He desired to know why a child should not contract syphilis from vaccine matter that was taken from a child itself the subject of inherited syphilis. Mr. Carter thought that light would hereafter be thrown on this question by the working of the new regulation which provides that the name of the child from whom the vaccine matter was taken should in each case be placed opposite the name of the child vaccinated.—Dr. CHOLMELEY expressed his opinion that very positive proofs must be brought forward to prove the terrible hypothesis advanced by Mr. Carter—that, after inoculating, without any definite local signs beyond those of successful vaccination, without the part presenting any other specific characters, a syphilitic disease should afterwards result.—Mr. TEEVAN referred to some experiments made in Germany which went to show that injection of syphilitic matter into the body might be made without any resultant local sore, and yet be followed by secondary symptoms. He believed that vaccine lymph might communicate syphilis without the production of any local sore at all.—Mr. BERKELEY HILL conceived that on two points the theories advanced by Mr. Carter were at variance with our knowledge of syphilis. Mr. Carter suggested that syphilis might be inoculated at vaccination, and, producing no immediate consequences, could in later childhood cause the abnormal developments and diseases of the teeth, eyes, etc., which were known to be due to syphilis in an inherited form. He saw no reason to allow that syphilis when acquired by vaccination might take a course different to that of syphilis acquired (not *inherited*) by accidental causes in young children. He referred to two children whom he had known to have acquired syphilis in infancy: they had suffered very much the same eruptions as adults, and now they had both passed their second dentition without presenting anything unusual as to eyes or teeth. In these cases of late sequelæ of inherited syphilis, it would be very interesting to know if the early infantile forms of disease were always present or whether they might be wanting, and the first symptom of syphilis be the phenomena of later childhood. Mr. Carter was in error in supposing it invariable for syphilitic parents to beget or bring forth syphilitic children until the poison had worn itself out. He mentioned cases in point.—Mr. KESTIVEN had had a large experience in vaccination, but had never seen transmission of syphilis in this way. He believed the poison to be introduced in other ways. Might there not have been some other cause for the introduction of syphilis in Mr. Smith's case?—Mr. GASCOYEN was unable to believe in the hypothesis advanced by Mr. Carter. He referred to several remarkable cases of apparent vaccino-syphilis. When syphilis was dormant in the parent, that person was incapable of transmitting the disease. One child of a family, not necessarily the first, might be found to be syphilitic (and the same was seen in rheumatism and other diseases); this being 'probably due to the fact that one or both of the parents suffered at the time of conception from the disease inherited by the child.—Dr. FREDERICK SIMMS referred to the well-known cases of vaccino-syphilis which occurred in Italy.—Mr. THOMAS SMITH remarked that, though he was not prepared to accept Mr. Carter's hypothesis, yet no one could deny that the syphilitic poison might remain long dormant. Indeed, that in most cases of hereditary syphilis, the disease did not show itself until more than nine months after conception, while in strong children the symptoms often did not appear until some time after birth. He believed that, in the case under discussion, the person did suffer from vaccino-syphilis.—Mr. PAGET thought that, in tracing the origin of inherited syphilis we should not be content to trace it to the immediate parent, because he believed it possible that it might pass from grandparent to grandchild, missing the intermediate generation.

PATHOLOGICAL SOCIETY OF LONDON.

DECEMBER 20TH, 1870.

RICHARD QUAIN, M.D., President, in the Chair.

Dr. TILBURY FOX brought before the Society a man suffering from Pityriasis Pilaris.

A report was read on Mr. J. D. HILL's case of Scapular Tumour. It appeared to be a Fibroma.

Mr. SPENCER WATSON showed a specimen of spindle-shaped Sarcoma of the Leg, removed by Dr. J. S. Walker. It had recurred for the third time after operation. The tumour was now again growing.—Mr. HENRY ARNOTT inquired whether the cells became plumper as the growths recurred, as he had observed in another case; to which Mr. Watson answered in the affirmative.

Mr. SPENCER WATSON also brought forward some cases of sympathetic Ossific Deposit in the Cornea.

Dr. GREENHOW presented an elaborate report on a case of Locomotor Ataxia which had been under his care for several years. The man, who was 57 years of age, had suffered from epilepsy when young, and had for many years been very intemperate. After death, the arachnoid was found much thickened, but the brain presented nothing abnormal to the naked eye. The posterior columns of the cord were much atrophied, the lateral columns less so. The posterior roots of the nerves were also affected.—Dr. DICKINSON had seen a marked example of the disease in a child two years of age.—Dr. CAYLEY observed that there was no nuclear growth, as in cirrhosis of the liver, but merely an atrophy of the nerve-substance. The first thing observed was a disappearance of the nerve-matter, and this passed upwards and downwards in the direction of the sensory tracts.

Mr. JAMES ADAMS exhibited a specimen of extravagant Exostosis of the Cranial Bones, taken from the body of a man aged 49, who had suffered from the disease for fourteen years. The growths were all confined to the right side. There was no evidence of his having had syphilis. The specimen had not been examined microscopically.

Mr. HENRY ARNOTT exhibited a specimen of Strumous Testicle. He brought the specimen forward in order to raise the discussion as to its distinctive microscopic characters. He himself had found great difficulty in recognising by the microscope the difference between syphilitic orchitis, chronic orchitis, and tubercular testicle.

Dr. WILLIAM OGLE exhibited the Lungs of a Porpoise, the bronchi of which were filled with stronglyli. There were also nodules throughout the lungs, and there was partial separation of the two ventricles of the heart.—Mr. HULKE remarked that these worms were frequently found in the bronchi of the porpoise.—Dr. CRISP's experience agreed also in this; he had found them in the lungs of the sheep. The bifurcation of the heart was present, he thought, in the dugong and in the walrus, besides the porpoise.—Dr. PYE-SMITH believed it only to be so in the walrus.

Dr. DICKINSON exhibited a specimen of Cystic Sarcoma, taken from the body of a boy three years old, which, he supposed, had originated from a lumbar gland. It filled the whole right side of the abdomen, and the scrotum was occupied by one of the large cysts.—Dr. PAYNE asked whether there was any positive evidence that the tumour was connected with the glands, more than its being in contact with them. He had often thought these growths might occur in foetal structures which disappear.—Dr. DICKINSON replied that he had been unable to find the lumbar glands, but the disease might have grown from the areolar tissue; as it was present at birth, it might have originated from behind the testicle.

Dr. SUTTON exhibited the body of a Still-born Child, which was covered with an Eruption similar to Small-pox. In answer to Dr. Murchison, he stated that the mother had not suffered from small-pox.—Dr. MURCHISON remarked that, although several similar cases had been published, still he thought the *post mortem* changes were not those of small-pox. There were no pustules in the liver or lungs.—Dr. BASTIAN pointed out that the pustules presented several stages of advancement, and that there were one or two healed cicatrices.

MEDICAL SOCIETY OF LONDON.

MONDAY, DECEMBER 19TH, 1870.

JOHN GAY, Esq., President, in the Chair.

Mr. JABEZ HOGG gave demonstrations with the ophthalmoscope of some Diseases of the Eye.

Mr. WICKHAM BARNES showed portions of Bone coughed up by a patient who had had Ozæna. Antecedent syphilis was suspected. Mr. Barnes had also the vomer and one of the turbinate bones that had come away from another patient.

Mr. HENRY SMITH showed a half-sovereign which he had removed from the larynx of a man in King's College Hospital. (The case was described in the JOURNAL of January 7th.)

Mr. HAINWORTH brought before the Society a young man who had been troubled with Enlarged Tonsils, but was now much relieved and able to sing well. The plan followed by Mr. Hainworth in such cases was to transfix the tonsil with a curved bistoury and then to cut from within outwards.

Dr. THUDICHUM narrated some of his recent Experiences at the Seat of War. He showed the instruments with which these injuries had been inflicted—the Prussian needle-gun and the French Chassepot-gun, which was an improvement of the Prussian arm. The cartridges for these guns were also shown. Dr. Thudichum noticed the serious nature of the wounds inflicted by the percussion-shells, which exploded instantly and gave people no time to lie down on the ground. He also

spoke of the nature of the wound, varying according to the velocity of the bullet.

The further reading of the paper was postponed until Monday, Jan. 2.

MONDAY, JANUARY 2ND, 1871.

JOHN GAY, Esq., President, in the Chair.

The President recounted a case of Glanders in the human subject, to which he had been called for the purpose of performing tracheotomy. There was no dyspnoea, though otherwise the man was very ill. He was an omnibus conductor, and caught glanders from a horse which sneezed in his face. Coryza, pain in the neck, difficulty in swallowing, exalted temperature, rigors, etc., were present. The skin looked dusky, and a remarkable stench pervaded the room. The nostrils and fauces were implicated, and sanious pus was discharged from the bowels. There was no eruption on the skin, and the only gland implicated was the submaxillary. The patient died. No examination of the body was procurable.

Dr. THUDICHUM read a continuation of his Clinical Experiences of the War. He dwelt especially on the character and effects of the wounds inflicted by the Chassepôt and needle-gun. Many German soldiers were wounded at distances where they could scarcely distinguish the enemy. Sometimes the clothes were not rent by the ball, but carried forward into the fleshy parts a short way, and on pulling away the intruded portion of clothes the ball came away also. The effect of the German bullets was at their longest range more severe than that of the French; and at equal velocities the German bullets, being the larger, had the greater penetrating power. The wounds caused by fragments of shells were fearfully lacerated; the large pieces of shell tore, broke, and killed; the smaller penetrated deeply. These fragments often killed without external laceration. The majority of cases in the hospital to which Dr. Thudichum was attached were injuries of bones in the secondary stage, requiring operative interference. In dressing the wounds no sponges were used, carded oakum being employed; and after use this was at once burned. Oakum itself was too coarse a dressing for wounds; and Dr. Thudichum preferred phenylised lint. Bone-operations did well, because sharp chisels were used. Rigorous cleanliness of the hands, instruments, and bandages, was observed. The patients had plenty of fresh air, and the tents were kept clean. Dr. Thudichum condemned the use of saws, and thought that bones were the most manageable part of the body. Wounds from sabre or bayonet were rarely seen. Typhoid fever and dysentery were seen abundantly, the patients being many of them poor and coming from distant parts of Germany. The author adhered to the old *dictum*, "that gunshot-wounds of the knee-joint require amputation".—Mr. MAC CORMAC said his experience agreed with that of Dr. Thudichum. Out of 1800 cases, he could only find one bayonet-wound and not one sabre-cut. He thought excision of the knee-joint for a gunshot-wound a very fatal operation; better success attended excisions of the upper extremity. He had seen many cases of injury of the knee where the ball had traversed the joint without penetrating.—Mr. W. ADAMS said that conservative surgery on the battle-field was a failure. He mentioned Stromeyer's experience in the Schleswig-Holstein campaign; there antimony was a great deal used as an antiphlogistic.—Dr. PETER ALLEN said that in the Crimean campaign they did not practise excision; the rule was amputation.—Dr. WEBB (United States Army) believed the success of conservative surgery to depend mainly on the cases selected for operation. He detailed several successful cases which he had seen during the American war. Amputation in severe injury of the knee-joint should be done on the field. He considered too much searching after the ball in the wound an objectionable practice.—Dr. THUDICHUM replied, and the meeting adjourned.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, DECEMBER 21ST, 1870.

J. HUGHES BENNETT, M.D., and afterwards W. MENZIES, M.D., in the Chair.

Dr. P. H. WATSON showed a small Urethral Calculus, which he had removed by forceps from a child aged 5. For two days after the operation, urine was drawn off to avoid extravasation.

Dr. JOSEPH BELL showed a Fibrous Tumour of the Mamma. It was round, very hard, and moveable. It had existed for at least two years; and he had removed it.

Dr. BELL also showed a Cyst which he had removed from the Gluteal Region of a gentleman aged about 40. It had existed for nearly fifteen years, but had recently grown rapidly, and attained the size of a large pigeon's egg. It contained steatomatous matter, with bloody serum.

Dr. BELL also showed a Coin rather less than a bronze halfpenny, which had been swallowed by a child aged 3 years and 4 months. He prescribed a diet of hard boiled eggs, cheese, etc.; and it was passed without pain or inconvenience in 84½ hours.

Mr. ANNANDALE showed a dilated and elongated Innominate Artery, which during life had produced symptoms closely resembling those of an aneurism. The aorta was atheromatous, and slightly diminished in size at one point.

Mr. ANNANDALE related a case of Intestinal Obstruction on which he had operated, but too late to save life. The patient, a coal-porter, dissipated, but tolerably healthy, had been seized with sudden and intense pain in the belly, succeeded soon by fecal vomiting, and persisting, notwithstanding all remedies, including enemata, for four days. On the fourth day, the abdomen was swollen; but no actual tumour could be felt either from rectum or on surface. Incision was made from a little below the umbilicus to a little above the pubes, in the middle line. A mass of small intestine at once protruded, part of which was distended, and part empty. A fine thread of lymph was found, constricting the gut, which was easily divided. No peritonitis was present. Next morning, he was able to swallow some sherry and lemonade. There was no vomiting. He died exhausted in the afternoon.—The PRESIDENT, Drs. CHIENE, BELL, and WATSON, made remarks; the latter mentioning some cases which he had seen, all of which died under various circumstances, but in only one of which did a *post mortem* examination show that the condition could have been remedied by operation.

Dr. BENNETT then left the chair, and read his paper on the Injurious Effects which may follow the Use of Mercury in Hepatic Disease. The paper consisted of a detailed account of a case treated by Dr. Bennett, after the patient had been frequently and severely salivated when in the army; and, if the patient's statements were reliable, the case gives a dreadful picture of heroic treatment absolutely unsuccessful. He was cured by good food, cod-liver oil, etc. The paper was followed up by an account of the proceedings of the Edinburgh Mercury Committee.—Dr. RUTHERFORD threw doubts on the accuracy of the patient's statement, and strongly animadverted on the sweeping accusations contained in the paper.—Drs. ANGUS MACDONALD, G. W. BALFOUR, MENZIES, JOHN DUNCAN, JOHNSTONE, R.N., and others, expressed the opinion that the experience of the profession showed that, when properly administered, mercury was in certain cases a valuable remedy.—Dr. BENNETT, in reply, asserted that his opponents gave contradictory opinions founded on unreliable experience of empiricism, while his doctrines were founded on the scientific basis of properly devised physiological experiment.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS, IRELAND.

WEDNESDAY, DECEMBER 14TH, 1870.

SIR D. J. CORRIGAN, BART., M.D., M.P., in the chair.

Dr. CAMERON read a paper on the question whether the Flesh of Diseased Animals is, or is not, unwholesome food. The author commenced by saying that epizootics resemble zymotics in their mode of propagation. He then enumerated the principal diseases of cattle which are met with in these countries. The *rinderpest*, or contagious typhoid fever; lung-distemper; small-pox; "soldier," analogous to scarlatina; anthrax; splenic apoplexy; "black leg;" carbuncular cynanche; panzootic aphthæ; eczema epizootica; trichina spiralis; "bot," and others, were mentioned and briefly described. Dr. Cameron dwelt more at length on a disease now unhappily endemic in Ireland—contagious pleuropneumonia. The symptoms of the affection were shivering and slight cough, followed by severe pyrexia. The pulse was usually full, and varied from 70 to over one 100 beats per minute. On applying a stethoscope, a loud, rough respiratory murmur was heard over the chest; pressure over the spine caused pain; the eyes were blood-shot, and froth filled the mouth. A sound resembling the *bruit de cuir neuf* became audible as the disease progressed. The *post mortem* appearances were the presence of a false membrane in the trachea, extensive hepatisation of the lungs themselves, these viscera being enormously increased in weight, and large quantities of muco-purulent matter in abscesses scattered throughout the lung-tissue. The flesh of the animals who died of the disease became flabby and moist within twenty-four hours. Its colour was a dark brown, and it was acid in reaction; and the milk generally contained a large percentage of solids, and in some cases *bacteria* and *vibriones* abounded in it. From a lengthened period of observation, Dr. Cameron was disposed to think that the eating of such flesh and drinking of such milk as had just been described were fre-

quently attended with highly prejudicial consequences. Diarrhoea and vomiting often followed their use, and a bad form of aphthæ affected the mouths of those who drank the milk of these animals.—A discussion ensued, in which the Chairman, Dr. Stewart, Dr. H. Kennedy, etc., took part. The lungs of a cow which had died from contagious pleuropneumonia were exhibited, and illustrated some of Dr. Cameron's remarks; they were of extreme size and weight.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, DEC. 17TH, 1870.

JAMES STANNUS HUGHES, M.D., President, in the Chair.

Dr. T. E. LITTLE presented three specimens of Cystic Tumour; one involving a portion of the Mammary Gland, and containing a fluid which closely resembled dilute puerperal milk; a second from the neighbourhood of the Testicle, the swelling having originally been a hæmatocele; and a third, engaging the Eyebrow of a girl, being filled with pap-like stuff (the so-called *atheroma*) and hairs.

Dr. BARTON exhibited a large Multilocular Ovarian Cyst, which he had removed some months previously from a woman, aged 36, the mother of two children. On the patient's admission to hospital, the existence of an abdominal tumour was easily recognised. In parts of this tumour fluctuation was detected, while the other portions felt solid. The entire mass was immovable. In the immediate neighbourhood of the umbilicus a prominence was felt, which was, in fact, an omental hernia. During the operation, when the structures in front had been divided, and it was supposed that the peritoneum had been reached, a cyst was opened, containing a dark-brown serous fluid. This showed that there was no peritoneal sac in the lower part of the abdomen. A second cyst was then punctured, and a thick pulpy liquid oozed from it. On evacuating a third, its contents were found to be a clear amber-coloured serum. The case terminated fatally, notwithstanding the successful removal of the tumour. Dr. Barton indicated four points of difficulty in the operation, arising respectively from the presence of extensive adhesions, from the multilocular character of the tumour, from the variety observed in the contents of the different cysts, and from the existence of an omental hernia, which gave rise to troublesome hæmorrhage.

Mr. TYRRELL showed a specimen of the Chronic Mammary Tumour of Sir A. Cooper, or the Cystic Sarcoma of Sir B. Brodie. It was pendulous, discoloured at the lower border, and over its surface large ramifying veins were observed. The diagnosis of the non-malignant nature of the swelling was arrived at from a consideration of its slow and painless growth, of its elasticity and movability, of its pendulous form, and of the absence of any enlargement of the axillary glands. At the time of the operation the patient was actually suckling her child, and it was only in deference to her urgent entreaties that the tumour was then removed.

Dr. PURSER exhibited portions of skin taken from the body of a very old woman, an example of the disease Fibroma Simplex or Molluscum. The whole trunk, the face, neck, and the greater part of the upper extremities, were covered with fibrous tumours of all sizes, but generally small. The lower extremities were, as is usual, nearly free. The large growths were pendulous, the others sessile. Hebra's drawings illustrative of the disease were likewise shown.

Mr. TYRRELL presented the bladder, prostate gland, and penis of a man who died comatose after seventy-two hours' Retention of Urine. There was hypospadias; and in passing the catheter the instrument once ran into a false passage two inches in length situated just in front of the bulb, the urethra being here narrowed and hard. Notwithstanding the drawing off of a considerable quantity of urine, of specific gravity 1026, and acid in reaction, symptoms of coma supervened and rapidly proved fatal. The bladder was highly congested, and there had been, in fact, intense acute cystitis. Both ureters were much dilated.

MESSRS. LETTS, SON, AND CO. have forwarded to us, in addition to their admirable medical diaries, which we noticed lately in terms of warm approval, specimens of a *Medical Prescription Copyist*, which leaves the prescriber in possession of a copy of every prescription which he writes; of a Medical Day-book, interleaved for the library-table or surgery; and of an excellently executed Metallic Pocket-book—which are all worthy of the highest praise for their perfect mechanical execution, and for the admirable manner in which each fulfils its appointed purpose. Each professional man will make his choice according to his individual wants; but, having made up his mind as to what kind of memorandum-books he requires, he will find those supplied by these publishers irreproachable in device and execution.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, Medical Appointments and Trials, Hospital and Society Meetings, important Inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, JANUARY 21ST, 1871.

VACCINATION AND SYPHILIS.

THE question of the possible inoculation of syphilis by vaccination is one as to which there have always been many sceptics amongst us, for the very good reason, indeed, conveyed in the old maxim, *De non existentibus et non apparentibus eadem est ratio*. Among the many millions of vaccinations performed in this country, no such case had ever been authenticated, although incessant charges and alarms of vaccino-phobists have kept the question always fresh and the fear before our eyes. At last a case has been found in which there is reasonable ground for discussing the probability; and it was brought before the Clinical Society, where it has been the subject of a report by a committee, and of debate. The case was one of unmistakable constitutional syphilis, which was believed by the gentleman who brought it forward to have been produced by vaccinating from a child who had inherited that disease. The investigation of the committee is not so complete as could have been wished. The facts, however, appear shortly to be these. Last autumn a young man presented himself at the vaccine-station of his district for revaccination. He had been vaccinated in infancy, but desired to renew the protection. He entered the vaccinator's room late, when all the children who had furnished that gentleman with a supply of lymph for his operations had departed, except one infant, vaccinated a week before, who had not been so utilised. No signs of disease were remarked, and four vaccine vesicles were well developed. The inoculation on the young man was made from this child in the usual manner. Four insertions were made into his arm with a lancet charged at the vesicles of the infant. In the operation, a little blood was made to flow from the young man's arm, but it is doubtful if any escaped from the vesicles on the infant. At the end of eight days, the young man showed his arm to the vaccinator and received his certificate. Three of the vaccine vesicles which formed at the punctures subsided, leaving by the way no foveated cicatrices, while the marks which had endured from his vaccination in infancy were still perceptible. The fourth vesicle did not heal, but caused some irritation, for which, as simple means of cure produced no effect, the patient, after some weeks' delay, applied at St. Bartholomew's Hospital for relief. He then had an indurated, elevated, ulcerating surface at the point of inoculation, a papular eruption of the body, and some erosions on the tonsils. His genital organs were perfectly free from any trace of disease. The superficial lymphatic glands generally were not enlarged, if a very slight prominence of those at the border of the trapezius in the neck made no exception. The child from whom the vaccination had been made being examined, erosions of the buttocks, of the angles of the mouth, and other signs of constitutional syphilis, were found to be present. The mother of the child had suffered several miscarriages and other affections that made it highly probable that she also had been syphilitic. The child who had supplied the vaccine lymph to this syphilitic child was also examined and found to be perfectly healthy, while other children who had also been vaccinated from her presented nothing unusual in their condition. Now, granting that in this instance both the vaccinifer and the vaccinated had syphilis, and that the disease entered the body of the latter through one of the vaccine-punctures—about which there seems no doubt—is it probable that the disease was communicated by the act of vaccination? If this be possible, it is so extremely rare that many of our most experienced vaccinators deny the possibility of syphilis being

so transplanted, on the strength of an enormously extended negative experience, as well as of certain theoretical considerations. It is indeed true that in all our great experience of vaccination in England, Ireland, and Scotland, we have no experience of vaccinal syphilis; this being, we believe, the first case in which the evidence is strong enough to bear more than superficial scrutiny. But abroad, this mode of transplanting the disease is stated to have been observed on several occasions, on such strong evidence that it is difficult to avoid admitting the possibility of the occurrence of such contagion. Even in these cases, several hypotheses are advanced to explain the conveyance of contagion by other causes than vaccination. In the case under discussion, it has been suggested—and of course it is possible—that syphilitic poison was introduced from some other person after the vaccination had taken place; nor can this contingency be denied; but strong circumstantial evidence is opposed to it. The patient is a man of sober, cleanly habits, of sufficient education to understand the necessity for protecting the vaccine wounds from irritation; and it could not be shown that he had had access to any other syphilitic person than the child. Again, it is urged, how comes it that an operation which is being constantly performed between children, of whom no very careful examination to detect disease is made, is not constantly communicating so prevalent and yet so insidious a disease as syphilis? Mr. Gascoven pointed out in this regard that children born of syphilitic parents are often alternately sound and syphilitised. Some of the children escape, while others of them, both earlier and later in the series, inherit the disease. If these cases be investigated, Mr. Gascoven states it will be always found—and he is supported by Rollet—that the parents at the time of procreation or gestation have been suffering from some syphilitic disorder. Hence, it is urged, we may fairly believe that only those children communicate syphilis by vaccination in whom the disease is in active progress; and that these, betraying their unhealthy condition, are not used by the vaccinators as sources of lymph. This is the more plausible, from the fact that most of the instances of vaccino-syphilis recorded abroad have occurred in the practice of irregular practitioners, midwives, farriers, and quacks; while in the United Kingdom, where the operation is performed exclusively by qualified medical men, capable of forming a judgment and taking proper precautions, vaccino-syphilis has been throughout long series of vaccinations, and remains now, practically unknown.

Another hypothesis advanced to explain the fact that of a series of children vaccinated from a syphilitic child, infection may be communicated to some and not to others, is that the lymph of the vaccine vesicle, when ripe for transplantation, does not itself contain the syphilitic virus, but that to propagate both diseases some blood must also be inoculated. There are some facts which strongly support this view. In the first place, the successful inoculation of syphilis with the blood of syphilitic persons by Pelizzari and others put the contagious quality of such blood beyond dispute. Next, it has been possible to inoculate vaccinia and small-pox from the same person, when the two diseases have been simultaneously producing their vesicles on the same individual. Matter from the vaccine vesicle has reproduced that disease, and that only in some, while matter from the small-pox pustules has produced variola only in other individuals. Hence, if small-pox and vaccinia can coexist, it is not difficult to believe that vaccinia and syphilis can coexist—not in the same vesicle, but in the same body. Again, the case recorded by Sebastian, the principal physician of the Maternité of Beziers, is strongly in favour of this hypothesis. In 1863, Sebastian vaccinated two infants from a child of ten months who had been vaccinated eight days before, and whose vesicles were well developed. He tells us that, as was customary with him, he carefully avoided drawing any blood when taking lymph from the vaccinifer in operating on the first infant; but, in charging his lancet to make the fourth puncture in the *second* infant's arm, the vaccinifer made a sudden start, and the lancet drew blood sufficient to redden the lymph, which, to his great regret, he nevertheless inoculated. What occurred was as follows. In the first infant, the vaccine disease ran through its phases quite regularly and naturally, and the child remained healthy. In the second child, also, the vaccine

vesicles were well developed at the three earliest punctures; at the fourth, a hard ulcerating elevated surface had formed by the twenty-second day, and the axilla contained a swollen lymphatic gland. Forty-five days later, the induration at the fourth vaccination-puncture was still well marked; and a rosy rash covered the child's body, accompanied by excoriation at the genitals. This condition of the vaccinated infant induced Sebastian to examine the vaccinifer narrowly, which he had not previously done. He then found undoubted signs of constitutional syphilis in that child.

To conclude, then, we think that, while it is difficult not to admit the possibility of syphilis being communicated by vaccination under certain circumstances, the excessive rarity of such an accident is at once explained and guaranteed by the facility of the precaution by which it may be prevented. That precaution is the careful examination of the child used as a source of lymph. We believe that it is owing to this precaution that vaccino-syphilis has long been so entirely unknown among us; and that this case, if it be one, is the first which has rewarded the eager search amongst annual millions of vaccinations. In all the foreign cases which have been traced, there is abundant reason for believing that the syphilitic condition of the vaccinifer would have been discovered, had any examination been made. In this particular case, it is only plain on the surface that the child had, for some reason, not been used as a source of lymph, and was employed in this case because the young man came late and the other children had gone. The case was well deserving of the investigation it received; and we wish that investigation had been more satisfactory. The occurrence at this juncture of a case so exceptional will not be useless, if it marks the necessity of minute attention to details and care in an operation so constantly repeated and so common, and if it impress to the fullest extent upon vaccinators a sense of responsibility in the examination of the vaccinifer and the care to avoid drawing blood. A shocking and purely fanciful hypothesis was stated at the outset of the meeting, but was generally repudiated—that syphilis may be communicated from a child showing no sign whatever of the disease to another child, who shall not betray that he has received the disease until months or years have elapsed. This is contrary to all the evidence we possess, which leads us to believe that, in every instance where syphilis is propagated by inoculation or accidental contagion, the ordinary phenomena are produced—namely, induration and ulceration of the point of entry a few weeks after contagion, and, a few weeks later still, general cutaneous eruption of the ordinary disease.

WE are very sorry to learn that the accounts of Mr. Solly's health are still very far from favourable.

MR. JABEZ HOGG has been appointed to fill the vacancy at the Royal Westminster Ophthalmic Hospital, consequent on the resignation of Mr. Hancock.

DR. HALL DAVIS has been elected an Honorary Member of the Medical Society of Victoria; and also of the Gynæcological Society of Boston, U.S.

WE are informed by Mr. Frederick Churchill that he intends to present himself for the next vacancy for St. Thomas's Hospital, and not for that now made by the resignation of Mr. Solly.

THE Dowager Marchioness of Lothian has been under training recently at one of the metropolitan hospitals as a nurse, and proposes, it is stated, to devote herself to works of charity.

THE annual general meeting of the Association of Medical Teachers is to be held at 32A, George Street, Hanover Square, on Friday, the 20th (this evening), at 8 P.M. After the address of the new President, Mr. Campbell de Morgan, the new regulations will come under consideration, respecting the teaching of Practical Surgery and Practical Physiology, which is likely to bring up the question of the amalgamation of schools for the purpose of more effectually carrying out those regulations.

LORD GEORGE HAMILTON, M.P. for Middlesex, will preside at the Biennial Dinner of the Great Northern Hospital in the spring. Gentlemen are invited to send their names as stewards to the Secretary, Mr. G. Reid. A guinea dinner-ticket covers all liability.

A PUBLIC meeting, called for the purpose of advocating the repeal of the Contagious Diseases Acts, at Windsor, was addressed last week by Mr. Fowler, M.P., and Mr. Langley, against the Acts, and by Mr. Darvill and Mr. Harris in their favour. It was adjourned without coming to a decision.

THE chair of Chemistry at St. Mary's Hospital Medical School will not be vacated until the end of the session, Dr. Russell, recently appointed to St. Bartholomew's Hospital School, having undertaken to complete the winter course of instruction before vacating his appointment at St. Mary's.

FOR a new office of Assistant Obstetric Physician which it is intended to create at University College Hospital, Dr. A. Wiltshire and Dr. Squarey are spoken of as the two most prominent candidates; both are favourably known in connection with this department of practice, and have held offices at the hospital, of which they were pupils.

THE plan of making simultaneous collections in the various churches and chapels of Liverpool and the neighbourhood, for the benefit of the local medical charities, was brought into operation for the first time on Sunday, and, so far as is yet apparent, with considerable success. The promoters of the movement anticipate that £5000 or more will be thus raised annually for the special object in view.

AT the next quarterly comitia of the College of Physicians, London, Dr. Salter, Dr. Basham, Dr. Walshe, and Dr. Habershon, go out of office by rotation as members of Council, and Dr. West as Censor. The Fellows recommended to fill the vacancies in the Council are Dr. Aldis, Dr. Black, Dr. Gull, Dr. Oldham, and, in the place of Dr. West, Dr. Bristowe.

THE friends of Dr. Hermann Beigel, of Charing Cross Hospital, who is now with General Manteuffel's army, will be glad to hear that he was decorated on the 4th instant with the order of the Iron Cross, for personal bravery on the field of battle. A comparatively large proportion of the medical officers of the British army have had the Victoria Cross—an honour of yet more difficult attainment.

THE Museum of Orchids and Natural History of Paris has been destroyed by German shells. Several of the hospitals have suffered. In reply to a protest from the physicians, formally conveyed by a *parlementaire* from General Trochu, Count von Moltke has replied that, at the great distance at which bombardment is now carried on, it is not possible to distinguish objects, but that, as the guns are brought nearer, a nicer discrimination will be possible.

CONSIDERABLE irritation is expressed in some quarters at the inconsiderate and disrespectful manner in which the interests of some important schools are treated, and the misrepresentation of quasi-confidential communications, in articles to which Dr. Headlam Greenhow, in his letter to us last week, alluded in terms which discredited their accuracy and condemned their bad taste. We are satisfied, however, on the other hand, that the authorities of University College School are not responsible for these premature and incorrect statements, and feel only regret that the indiscretion of gentlemen attached to the staff of the hospital and the newspaper should have involved them in this misunderstanding. There is no reason, however, to suppose that it is more than indiscretion, and there is reason to hope that it will not involve any permanent bad consequences.

A CHRISTMAS TREE.

AT the Great Northern Hospital, over one hundred in-door and out-patients were presented with gifts of clothing, tea, sugar, toys, fruit, and

needful articles, at their usual "tree" treat last Thursday. The children enjoyed a magic-lantern very much. Music and good cheer, in a gaily decorated ward, seemed to interest the patients and give them pleasure. Several members of the Committee and the Medical Staff entered largely into the amusements of the sick family, causing sunshine in sickness. Bed-ridden patients had useful articles brought to them.

UNIVERSITY COLLEGE.

A BALL in aid of the funds of University College Hospital was held on Tuesday evening at Willis's Rooms. The attendance was very large, upwards of three hundred friends of the Hospital being present. We believe that the proceeds of the entertainment will amount to about one hundred pounds.

SOCIETIES AND SCHOOLS.

THREE years ago, it was noticeable that the presidency of the three Societies, Royal Medical and Chirurgical, Pathological, and Obstetrical, was concentrated in the hands of members of the St. Thomas's Hospital Staff, Mr. Solly, Mr. Simon, and Dr. Barnes. At this moment, a similar distinction falls to Guy's Hospital; Dr. Gull, Mr. Hilton, and Dr. Braxton Hicks being installed as presidents of the Clinical, Pathological, and Obstetrical Societies.

SCIENTIFIC CONCILIATION.

MR. ST. GEORGE MIVART, F.R.S., has issued from the press this week, through the publishing house of Messrs. Macmillan, a book dealing with the Genesis of Species, which will be read with infinite pleasure and profit by all educated men. Long known to the many as a zoologist of great ability and untiring zeal, he has shown in this book the power of thought and diction, the clear grasp of the whole range of zoological problems, and the extensive acquaintance with casuistic and theological literature, which are needed for a masterly discussion of the place in literature and science of the Darwinian doctrine. Minutely acquainted with all that the theory of natural selection explains, yet impressed with the mass of difficulties which it leaves unexplained, and untinged with any perceptible theological bias although impregnated with early theological lore, Mr. Mivart has succeeded in producing a book which will clear the ideas of biologists and theologians, and which touches the most delicate questions in a manner which throws light upon most of them, and clears away the barriers of intolerance on each side. The general conclusion is, that the theory of survival of the fittest is insufficient as the one explanation of the origin of species, but that its promulgation affords no ground for the *odium theologicum* or *antitheologicum*. Books of scientific conciliation are usually shallow and unsatisfactory. This is a remarkable exception. It is valuable as a contribution to science, and to the literature of men of ordinary education. The leading members of our own profession will probably welcome it with peculiar satisfaction.

MANCHESTER MEDICAL SOCIETY.

THE annual meeting was held on January 11th; J. O. Fletcher, M.D., President, in the chair. The Reports of the Committee, Treasurer, and Librarians were read, from which it appeared that the Society was in a very flourishing condition. During the past year, the number of members had increased by twelve, and seven hundred and forty-four volumes had been added to the library. Votes of thanks were given to the retiring office-bearers, and the following were elected for the present year:—*President*: John Thorburn, M.D. *Vice-Presidents*: L. Borchardt, M.D.; J. E. Morgan, M.D.; M. A. Eason Wilkinson, M.D.; T. Windsor, Esq. *Honorary Secretary*: W. Heath, Esq. *Honorary Treasurer*: E. Lund, Esq. *Honorary Librarians*: D. Little, M.D.; C. C. Ritchie, M.D. *Committee*: C. H. Braddon, M.D.; S. Crompton, M.D.; J. O. Fletcher, M.D.; J. Galt, Esq.; J. Hardie, M.D.; Jesse Leach, Esq.; D. J. Leech, M.B.; T. Mellor, Esq.; John Roberts, M.D.; D. Ll. Roberts, M.D.; A. Wahlutuch, M.D.; W. Whitehead, Esq. *Auditors*: R. D. Fox, Esq.; J. Hutchinson, Esq.

ALIVE IN A COFFIN.

STORIES of this kind are generally very apocryphal; but the following reaches us from an authentic source. A child narrowly escaped being buried alive last week in Manchester. The infant's father had died, and was to be buried in Ardwick Cemetery. The day before the burial, the infant was taken ill, and apparently died. A certificate of death was procured from a surgeon's assistant who had seen the child; and, to save expense, it was decided to place it in the same coffin with the father. This was done; and the next morning the bearers set off to the cemetery with their double burden; but, before reaching the graveyard, a cry was heard to issue from the coffin. The lid being removed, the infant was discovered alive and kicking. It was at once removed to a neighbour's house, but died eight hours afterwards.

COMPARATIVE MORTALITY OF LARGE TOWNS.

At a meeting of the Manchester Statistical Society, held on Wednesday, January 11th, 1871, Dr. Syson, Officer of Health to Salford, read a paper "On the Comparative Mortality of Large Towns", in which he quoted the following statistics.

Annual average of Deaths, 1863-1868, both inclusive.

	Total Births.	Deaths under 1 year.	Deaths under 5 years.	Deaths-rate per 1000 Births: under 1 yr. under 5 yrs
Preston	4,374	897	1,541	205 352
Ashton	4,664	856	1,544	183 311
Oldham	4,326	797	1,433	184 331
Bolton	5,639	969	1,753	170 310
Blackburn	5,313	1,020	1,685	191 317
Manchester ...	9,148	1,988	3,795	217 414
Salford	4,469	835	1,584	186 356
Leeds	5,260	1,096	1,885	208 358
Birmingham ...	8,869	1,641	3,070	185 346

ANTISEPTIC DRESSING.

DR. CRACE CALVERT, F.R.S., of Manchester, having been requested to carbolicise a quantity of charpie for the use of the ambulances at the seat of war, found that charpie was unsuitable for the purpose; and, after trying several textures, finally hit upon oakum as the most excellent. The oakum is first soaked in Burgundy pitch, and then rendered antiseptic by the addition of carbolic acid. This application has been a good deal used at the Manchester Infirmary, and with good results.

THE LONDON SMALL-POX EPIDEMIC.

It is indeed high time for our vestries and sanitary officers to bestir themselves. Small-pox is raging in London to an extent for which no parallel can be found—within the last thirty years at any rate. The weekly deaths have risen from an average of 20 in October to 40 in November; to 100 in the last week of December; and for the week ending the 14th instant to 135. And the worst feature of the case is, that a glance at the Registrar-General's returns shows how the disease is spreading itself over the metropolis—gradually in some districts, like a torrent in others: in parts of Westminster, for example, where, out of 70 deaths registered last week from all causes, 21 resulted from small-pox. No wonder that the registrars in a neighbourhood where such a state of things as this exists, report "a most deplorable neglect of vaccination among the population". The result of a calculation as to the relative fatality of the epidemic in different parts of London is to show that, after making a correction on account of the deaths in the small-pox hospitals at Hampstead and Islington, of persons brought from the several districts, the mortality from small-pox last week was in the annual ratio of 24 deaths to every 10,000 of the population in the western group of districts, 14 in the north, 20 in the central, 45 in the east, and 10 in the south. The rapid development of the disease in the western group is apparent from the fact that, out of an aggregate of 83 fatal cases returned during the last fifteen weeks, 50 have occurred within the last three weeks. Shoreditch returned 23, Bethnal Green 5, Whitechapel 6, St. George's-in-the-East 3, Stepney 3, Mile End Old Town 4, and Poplar 2 fatal cases last week. In addition to the 46 deaths thus occurring in these seven districts, they must be credited

with 9 cases which they sent into the two small-pox hospitals, and which proved fatal there. We observe that of the 135 deaths registered last week, 62 were of children under 5 years of age, 36 of young people between 5 and 20 years old, 32 of persons aged between 20 and 40 years, 4 of persons between 40 and 60 years of age, and 1 aged upwards of 60. The necessity for revaccination is thus palpably manifest. We regret that means are not taken to ascertain and publish every week the relative numbers of fatal cases among unvaccinated and vaccinated persons: we believe that the result would be such as to materially strengthen the hands of those whose duty it is to undo as far as possible the sad mischief which the anti-vaccination League has wrought.

THE PATHOLOGICAL SOCIETY.

THE opening meeting of the new presidential session at the Pathological was not so successful as usual. The badness of the weather prevented a very numerous attendance. The new president was not altogether happy in his allusion to his long desertion of the society, or in his explanation of its causes, and his want of familiarity with the mode of carrying on the business was brought into unpleasant relief by the absence of the quiet tact and studied courtesy which the society has been accustomed to observe in all its presidents, and notably in its late officers. A somewhat unrefined levity, brusqueness in interrupting speakers, and a tendency to minute criticism of medical and surgical treatment, are considered to be out of place at the Pathological Society. It had not before been stated, until this information was conveyed on Tuesday night, that the early *Transactions* of the Society were considered to be deficient in scientific value, or that its earlier meetings were unworthy of the attendance of the most highly qualified pathologists of the day. Such an assertion would be hard to prove; it conveys a left-handed compliment, and a poor apology. The scientific honours of the meeting of Tuesday were for Dr. Payne, who brought forward two extremely interesting and well observed cases illustrating the pathology of pyæmia, and some rare and equally skilfully investigated specimens of peritoneal cysts containing atmospheric air.

VACCINATION BY POOR-LAW MEDICAL OFFICERS.

WE have the following from our correspondent of last week.

"The removal of Poor-law medical officers from the post of vaccinators is a subject which requires attention. The ground on which this proceeding is recommended by Dr. Seaton, and has been urged on the boards of guardians by the Privy Council, is that vaccination is thus rendered more perfect by the aggregation of larger numbers of subjects at one station, and the greater facilities thus afforded for the selection of subjects, and the conduct of perfect arm-to-arm vaccination. On the other hand, in losing the admirable machinery afforded by utilising the services of the large body of Poor-law medical officers, the state loses the most valuable means of popularising vaccination; of obtaining early and secure information as to the existence of small-pox; and of putting into force re-vaccination on an efficient scale. The Poor-law medical officers are those who are best qualified by their daily contact with the poorer classes to influence their minds, and to make persuasion and advice take the place of an obnoxious coercion. By the present course of annulling their contracts, and depriving them of their income from vaccination fees, not only is their influence withdrawn when and where it is most wanted, but they are made to suffer an absolute injustice, and they are arrayed in hostility against the present vaccination régime. The example of Ireland shows that, by concentrating in the Poor-law medical the offices of state physician, registrar, and vaccinator, an almost perfect vaccination is secured, and small-pox is kept at bay. Notwithstanding the frequent importations of late into Ireland, small-pox is still prevented from spreading there, and can only be said to exist at Belfast, where the guardians have shown a culpable negligence, and the Poor-law medical officers are neither properly paid nor supported. Here just at this moment, when small-pox is epidemic in an intense form, and when the whole tendency of the most intelligent sanitarians is to convert the Poor-law officer into a state physician and to consolidate the divided and confused sanitariums of various officials and departments, the opportunity is being taken to increase the division and confusion. The registration is put in the hands of one officer, usually not a person at all interested or concerned with vaccination, and subordinate to the Registrar-General's office; the vaccination into the hands of a second, dependent upon No. 1 for the information, and

subordinate to the Privy Council; the unvaccinated cases are locked up in a third hand, subordinate to the board of guardians; and the Poor-law medical officer, deprived of the fees which formed a large part of the consideration on which he took his laborious and ill-paid office under the state, is asked to make a special and unpaid weekly report to the Poor-law Board on cases of small-pox in his district, which is to be returned for the consideration of the local boards. If this be not adding to the existing sanitary muddle, I should be glad to see it satisfactorily explained. The example of Ireland shows how much good can be done by a simple concentration in the hands of one man, professionally qualified to understand and attend to the matter, and moderately paid for doing so. The present shocking state of things in England shows how much harm can be done by subdividing, spreading, and confusing the work in many hands. Nor is the contrast less acutely marked by observing that the English failure is a costly and complicated failure, involving a staff of somewhat costly, though very hardly worked, inspectors, and a system of gratuities which do not obviate a *fiasco* here, while their absence has been found compatible with a brilliant success under the simple and efficient Irish system, in which the whole thing is left in the hands of the Poor-law medical officers. The responsibility of the whole failure here rests probably really with Major Graham, who insists on appointing as registrars persons who cannot be entrusted with vaccination—tailors, grocers, attorneys, and the like—instead of appointing the Poor-law medical officers, who alone are fitted by their education properly to register as well as to vaccinate. Major Graham's complete ignorance and obstructive obstinacy on all sanitary questions have hitherto been covered by the brilliant abilities of his deputy, Dr. Farr, to whom the nation is largely indebted, and to whom he has been content to leave the whole of the sanitary work which has achieved so great a reputation for the General Register Office. It is very rarely that, as in the marvellous document on still-births that has earned for him the adhering title of the 'Dogberry of Somerset House', the Registrar-General ventures upon this slippery ground. While handing over the work, however, he retains the patronage; and it is to the abuse of this that we owe a class of registrars in this country to whom vaccination cannot be entrusted, and a completed system of registrars, vaccinators, prosecuting officers, triple returns, inspectors, and gratuities, which has proved a disastrous failure, and which is sure always to be as ineffective as it is clumsy."

PRIVILEGED WORKHOUSES.

AN interesting question was raised this week, in the case *Catch v. Shaen*, by Mr. Bere, Q.C., who moved, on the part of the defendant, for a new trial. He first attempted to move on the ground of privilege; but the Lord Chief Justice reminded him that he had not raised that question at the trial. There had been a general publication; and the learned counsel had not contended that, on the ground of public interest in the subject, there was a right of public discussion, and a consequent immunity to the defendant, in the absence of malice. It would be, said the Lord Chief Justice, a very grave question, on which he would have great satisfaction in having the decision of a Court of the highest authority, whether a party would be justified in publishing to the world matter, upon the face of it libellous, because the public had an interest in the management of a particular workhouse, on the ground that it formed a portion of the general administration of the Poor Law, and raised a question as to the general nature of the system to be pursued. His lordship continued: "I should have put the question in a train for determination, had it been raised; but I certainly understood that it was not raised."

THE CLINICAL SOCIETY.

THE annual meeting of this Society was held on Friday, the 13th instant; Mr. Paget, the retiring President, in the chair. The list of officers and Council recommended for election, and published in the *JOURNAL* of January 7th, was accepted. The Annual Report of the Council was very satisfactory, and spoke well for the popularity and future prosperity of the Society. Dr. Barclay, in moving a vote of thanks to Mr. Paget, the retiring President, spoke in graceful terms of the deep obligations under which the members lay to Mr. Paget for fulfilling the duties of his office during the last two years. Mr. Paget, on his part, referred to the pleasure he had felt in being the President. In the course of a very happy professional life, no circumstance had been so enjoyable to him as his tenure of office. The Society had

been most successful, thus vindicating the course taken in its foundation. Dr. Barclay moved a vote of thanks to Mr. Paget, the retiring President, which was seconded by Dr. Cruicknell, and carried by acclamation. A vote of thanks, proposed by Dr. Cholmeley and seconded by Dr. Cayley, was accorded to Mr. Callender and the other retiring members of the Council for their services to the Society. An interesting paper was read at the meeting by Dr. Pavy, on a case of Intermittent Hæmaturia; and the discussion on Mr. T. Smith's case of Ulcer following Vaccination was continued. The next meeting of the Society takes place on Friday, the 27th instant, when the new President, Dr. Gull, will deliver an opening address.

SMALL-POX AT ST. GEORGE'S HOSPITAL.

DR. THOMAS JONES, the resident medical officer of St. George's, forwards additional particulars with reference to the small-pox epidemic at St. George's. There occurred during the last month twenty cases. Of these, two have died (one was suffering at the time from softening of the cord, and the other from extensive mitral disease); three are convalescent; and the remaining fifteen are being treated in the two convalescent wards at the top of the hospital. Of the number, one is a nurse, and one is the carpenter of the hospital. All the cases, with the exception of one, and that happened to be one of the fatal cases, were vaccinated in infancy. Revaccination was performed in one only, six years ago, but was unsuccessful; and one of the patients had small-pox twenty-years ago. Of the nineteen cases that were vaccinated, the cicatrices were very small and indistinct in thirteen; of these, with the exception of two, which are very severe, the attack is moderately modified. Of the six with good marks, the attack has been very slight. Twelve of the cases occurred between the 4th and 7th instant. There have been but five cases since the 11th instant. The cases have occurred in twelve of the thirty wards, and in no one ward have there occurred more than two cases. With the exception of one, all had been patients in the hospital from sixteen days to four months. During the past week, all the patients, nurses, and servants have been revaccinated. The admissions are still restricted, and persons admitted are subjected to the operation.

MEANS OF PREVENTION OF SCARLET FEVER.

WE are told (says Dr. Aldis) that scarlet-fever may be stamped out; but each of us should have, like Argus, a hundred eyes to detect the disease, and, to annihilate it, the hundred hands of Briareus. Besides, we require the assistance of a more complete registration of sickness. There can be no doubt that isolation is among the best means for preventing its extension, and that all of us adopt this plan where practicable. He remembers causing three children who had the complaint, at an orphanage in Bloomfield Place, to be removed into an empty house in Bloomfield Terrace, where they recovered, and none of the others suffered. Without houses of refuge in our districts, it is impossible to isolate the patients. There are so many children attacked under the age of 5, which precludes their admission into the hospital without the mothers, that a barrier against isolation is raised in numerous instances. But it often happens that kind persons receiving into their families those of another family apparently healthy, in which scarlet fever had appeared, inadvertently subject themselves to infection through these visitors being subsequently attacked. The difficulties in regard to isolation and in the way of suppressing scarlet fever among the poor are very great; they have often no other place to occupy when we wish to disinfect their bedding and rooms, but sometimes they allege that it is cruel to cause their own removal, and occasionally they have obtained certificates stating that they cannot safely be removed, which may be true; they often conceal the disease and break promises made of taking their children to the hospital, although living with their children in the kitchens, and letting the rest of the house to lodgers. The author of *The Philosophy of Medicine*, published in 1800, says:—"From the time of Dr. Haygarth first communicating his ideas of stopping the progress of the small-pox, the probability of stopping the progress of scarlet fever

by the adoption of similar methods was too evident to escape the most inattentive observer. The first trials proved successful; and the full body of evidence elucidated by the clearest reasoning, which appeared soon afterwards from the same masterly hand, encouraged me to proceed; and now for several years past I have never thought it necessary either to break up a school or to disperse a private family. Allotting apartments on several floors to the sick and to the healthy; choosing for nurses the older parts of the family, and prohibiting any near communications between the sick or their attendants, and the healthy, with positive orders instantly to plunge into cold water all the linen, etc., used in the sick chambers, has very universally been found sufficient to check the further progress of the infection." Then, again, as to the removal of patients,—have the medical officers a sufficient number of carriages at their disposal, and are they properly constructed? Complaints have been made that they are insufficient, and also that three deaths occurred in January, 1869, and another recently, in cabs, on the way to the Fever Hospital, on account of the sick persons sitting upright. Every parish should see the necessity of providing special carriages, in which fever-patients may be conveyed lying at full length. Thirdly, health officers should all be able to use suitable apparatus for the disinfection of clothing and bedding; but, when Dr. Aldis put the question at a meeting of the Association of Medical Officers of Health, as to whether each of the members present could use one, the reply was in the negative. The habitations of the labouring classes should have a constant supply of water; but he fears that in many parishes there is none on Sunday, when it is most needed. A promise is made that a supply shall be given on Sunday, or, at least, late on Saturday, to make up for any deficiency on Sunday; this promise, however, is frequently forgotten. The report upon the Coleshill and Ebury Buildings, recently opened by the Improved Industrial Dwellings Company, in the Belgrave Subdistrict, states:—"During the last two or three years the Directors have conducted a variety of experiments for the purpose of securing a constant water-supply for their tenants, and having, as they believe, succeeded, the perfect arrangements have been fixed for the first time in these buildings." The provisions of the Sanitary Act enabled Dr. Aldis to summon an inhabitant of Gilbert Street, Grosvenor Square, on April 25th last, at Marlborough Street, for being in charge of an infected person, that is, with scarlet-fever, and for exposing him in a public conveyance without notifying to the driver that the person was so infected; for which she was fined. He was also enabled to stop the public sale of furniture infected with scarlet fever at a house in Buckingham Palace Road.

THE SIN OF SMALL-POX.

THERE have been several convictions during the week in London and throughout the country for improper exposure of small-pox patients in public vehicles and places, and for shameless dealing with infected clothing. This is very necessary; but if only a little of this zeal had been shown in carrying out vaccination to prevent the epidemic, we should not cut so sorry a figure in its presence. An epidemic of small-pox amongst the fellow-countrymen of Jenner is even more a sin than it is a misfortune.

THE SMALL-POX AND THE METROPOLITAN HEALTH-OFFICERS.

DR. HARDWICKE reports to the Paddington Vestry that vaccination has been much neglected in the parish; that malignant small-pox is prevalent there; and, "if the epidemic break out among the paupers, it would be, in his opinion, impossible to estimate what might be the consequences." By this he meant, we presume, that they are probably unprotected by vaccination, and that a great many of them would catch small-pox and die. But, if this be so, will he inform us why they should not be now revaccinated, to prevent "an epidemic from breaking out among them"? and why, with the ample warning afforded by the continued epidemic in the neighbouring country of France, with which we are in constant communication, he has not in the interval, and repeatedly, if necessary, called the attention of his local authorities to the

dangerous state of the vaccine register and the unlawful and wicked neglect of the provisions of the Compulsory Vaccination Act? We make the same observation to Dr. Whitmore, and to other medical officers of the metropolitan districts, East and West. We apprehend that this is precisely one of the most important functions which they were called upon to fulfil. All our sympathies are with these officers; and we desire to magnify the importance of their office, and to assist in obtaining for them the fullest appreciation and support in the performance of their delicate and arduous duties. But it seems to us that the calling the urgent attention of the local vestries and boards of guardians to the dangerously unprotected state of the population, from the imperfect state of the registers, has long been one of their most urgent duties. They have had ample notice, ever since June last, of the imminence of the danger; the medical and the general press have repeatedly and anxiously sounded the note of alarm. If they have pressed this matter upon the vestries and guardians in the interval, and their warnings and advice have been disregarded, we should be glad to know it, for the credit of their usefulness, and for the honour of State Medicine. Even then, it is to be regretted that they have not used freely their power of appeal to the Privy Council and the public intelligence. But we ought now clearly to understand where the responsibility of this grievous neglect lies, and how it is to be avoided for the future. Let country vestries and local boards take warning. The small-pox is at their doors, in the most virulent and intense form in which it has appeared in this country for many years. They have in well organised and thorough vaccination an almost complete safeguard. Let them use it before the enemy has already taken possession of its victims, and is entrenched within their defences.

CHLOROFORM ROBBERIES.

How is it that only people who are mysteriously robbed can be rendered instantaneously insensible by chloroform or other anæsthetic vapours? Instantaneous means of producing anæsthesia by inhalation are unknown to men of science; and we are all aware that to produce anæsthesia by any known fluid evaporating from a handkerchief is a comparatively slow process, and one which is still more impeded when we have not the ready and intelligent co-operation of the subject, except in children, whose loud cries lead to deeper inhalation and more rapid insensibility. It is hard to suppose that the thieves have compassed a secret beyond the skill of men of science; and we must avow ourselves grimly sceptical of these stories of chloroform robberies, which generally wear a very suspicious air.

DUTIES WITHOUT REMUNERATION.

THE following circular has been issued.

"2, Parliament Street, December 31, 1870.

"Sir,—As the Poor-law Board wish to be informed of the extent to which small-pox continues to prevail in the metropolis, I have to request that you will be good enough to furnish me with the information required by the enclosed form; commencing with the week ending January 7th, 1871, and continuing the same during the ensuing two months.

"I remain, Sir, yours truly,

"J. H. BRIDGES, *Poor-law Inspector.*

"To ———, Medical Officer of the Parish of ———."

"——— Union [or Parish]. Cases of small-pox under treatment in the District [or Workhouse] of ——— during the week ending ———. Men. Women. Boys under 16. Girls under 16.

(Signed) ———, *Medical Officer.*"

These returns the Poor-law medical officers are expected to make without remuneration; in fact, remuneration for the trouble is point-blank refused, and they are told that they ought to be pleased to render this service to their country. For the purpose of contrast, we quote the following official letter, of which a copy happens to be before us.

"General Register Office, Somerset House, Dec. 1st, 1870.

"Sir,—I have received your letter of yesterday. I wish Registrars of Births and Deaths to furnish you, for official purposes, with extracts from the registers in their possession; and I will thank you to inform Mr. Bladon that such is my wish; but they cannot undertake

this extra work unless they receive fair remuneration for the additional labour and trouble thus imposed on them.

"I have the honour to be, sir, your faithful servant,

"GEORGE GRAHAM, *Registrar-General.*

"Mr. W. R. Brunton, Medical Officer, Redditch."

Relating to precisely similar questions, it illustrates exactly the different view which is taken of work exacted from medical and non-medical persons. We advise the medical officers to remonstrate in every case against the imposition of such additional work without remuneration, and to resist courteously but firmly.

SCOTLAND.

GLASGOW EYE INFIRMARY.

THIS institution, intimately connected with the great name of Mackenzie, held its annual meeting on the 13th instant. From the report published, it appears that the Eye Infirmary still pursues its useful work with unabated vigour. The number of cases treated has risen from 209 in the first year of its existence, 1824, to 3,683 in last year. We are also glad to observe that the funds are in a prosperous condition. The proposition was brought forward by the directors, and unanimously approved of by the contributors, to form a branch Eye Dispensary in the west end of the city. The present Infirmary is situated considerably to the east of the centre of the city, and about three miles from the new University; its position, therefore, makes it at once very inconvenient to a considerable portion of the community, and inaccessible to the students of the University. Even before the latter was removed westward, the distance was a considerable obstacle to students, who were already very fully occupied; and now that this obstacle is much increased, they are practically shut out from a thorough knowledge of this important class of diseases. These two considerations have induced the directors of the Eye Infirmary to moot the idea of a western branch, and we feel sure that in this they will have the sympathy of a large portion of the medical profession. The question was indeed raised at this meeting whether there might not be an association of the University and the Eye Infirmary in the proposed new dispensary, or whether it might not be possible to have the latter in connection with the new hospital. These matters can, however, only be settled by a detailed consideration of circumstances; and meanwhile we are glad that the matter is practically settled, by the unanimous decision of the subscribers that a west-end branch should be formed, and by the appointment of a committee to carry out the proposal.

EDUCATION OF FEMALES IN MEDICINE.

OUR Edinburgh correspondent writes:—Yesterday (January 16), the adjourned meeting of the Court of Contributors to the Royal Infirmary was held in the Queen Street Hall, which was densely crowded both by contributors and the public long before the hour of meeting. About three hundred students were in the gallery. The platform was occupied by the Lord Provost and the rest of the managers of the Infirmary, one or two well known citizens, one or two absolute nobodies, and four or five of the "little band," headed by Miss Jex Blake. These latter occupied a conspicuous position; but why they were put there seemed not easy of explanation, as they are not managers of the Infirmary, nor likely to be so. Professor Charteris, a recent addition to the Faculty of Theology, moved that the Court of Contributors advise the managers to admit all registered students of medicine to the Infirmary. This motion was seconded by Sir James Coxe in a long but not very vivacious paper, which he read. Professor Muirhead then, in a most able, logical, and convincing address, moved that the managers be allowed to manage their own affairs. He was seconded by Dr. Gillespie shortly, but to the point. An aged lady had presented a petition or query, signed by 900 females, somewhat to the effect that, if the students could not study medicine along with females, they certainly were not fit to treat females. This *non sequitur* did not seem to produce great effect, particularly as, we understand, the reader of the query is the president of a

society which distributes *gratis* papers against the Contagious Diseases Acts. Mr. David Maclaren, seconded by Mr. Cowan, proposed a mild amendment, condemning utterly mixed classes, but requesting the managers to make arrangements for teaching females separately. By this time the audience were getting thoroughly weary, and objected to hear platitudes, so it was thought proper by the civic authorities to expel the students, who in the gallery had really behaved wonderfully well. After a word or two from Professor Christison, they peacefully retired, the other galleries also being cleared of the non-contributors. Miss Jex Blake again made her voice heard in giving a flat contradiction to a statement by Professor Muirhead regarding a statement of her own. Professor Muirhead's memory is exceedingly accurate; but he courteously accepted her remarks, and apologised for any mistake. The votes were then taken, when it was found that Professor Muirhead's amendment was carried against the motion of Professor Charteris by a majority of 18; 211 voting for the amendment, and 193 for the motion. The question is thus left, as it ought to be, in the hands of the managers.

NEW UNIVERSITY HOSPITAL FOR GLASGOW.

FROM the remarks of one of the Arts professors, at the meeting of the directors of the Eye Infirmary noted above, we observe that a committee is in process of formation, with the senior M.P. of the city as chairman, to arrange the management of the new hospital. Since the negotiations with the Royal Infirmary broke down, it has been thought by many that an independent board of management for the new hospital might rather have the effect of infusing fresh spirit, and awakening interest in a wider circle, than, as was feared, of producing a feeling of rivalry between the two hospitals. The great object of an amalgamation of the two institutions seems to have been to meet the supposed prejudice against an "university" hospital, a place, namely, where experimenting could be largely indulged in, and where the instruction of the students would occupy a greater degree of attention than the curing of the patients. We, however, very much doubt the existence of such a prejudice; we rather think that the conclusion will be that, as the professors are usually chosen for ability and learning, the treatment in the University Hospital will always be the best to be had. At the same time, we decidedly understand how a general body of subscribers would much more readily trust the management of the money they give to a board composed of practical merchants than to the senate of an university. We hope, therefore, soon to see such a board formed, and that they will practically enter on the duties of management, while the University retains such privileges as may be necessary for teaching purposes.

IRELAND.

SALARIES OF RESIDENT MEDICAL OFFICERS OF ASYLUMS.

THE Lord-Lieutenant and Privy Council have issued rules prescribing the amount of salaries to be given to medical residents of asylums according to the number of inmates under their charge. Under these rules Dr. Fitzgerald, the Superintendent of the Limerick Asylum, should receive £450, the number of inmates being over 350. Dr. Fitzgerald has had twenty years' exemplary service: it is grievous to find the governors, while acknowledging his eminent services, fighting in every way against the just increase which this excellent rule affords him, of just £100 beyond the meagre allowance for which he has so long served them.

ROYAL IRISH ACADEMY.

AT the meeting on Monday, January 9th—the Rev. J. H. Jellett, B.D. President, in the Chair—Mr. Charles R. C. Tichborne, F.C.S., read two short papers entitled "Laboratory Notes". The first was on the "Production of Acetic Acid by the Destructive Distillation of Resin". The author found that, when resin was submitted to distillation, among other products there was a strongly acid solution. The silver salt of this acid was formed, and on analysis it proved to be acetic. He remarked that it was rather surprising to see acetic acid produced in

appreciable quantities from a substance so comparatively free from oxygen. The amount of this metalloid in colophony was 10.6 per cent., whilst in an acid-yielding substance, such as woody fibre, it was 49.4 per cent. The subject of the second paper was "The Formation of Ozone by Resin Oils". When light resin oils were submitted to the combined action of atmospheric oxygen and light, Mr. Tichborne observed that ozone was produced in abundance (such oils, when poured upon a solution of iodide of potassium, instantly produce blue iodide of starch); at the same time the boiling point of the oils was raised. Ozone was probably the prime mover in the production of colophonic hydrate—a substance discovered two years ago by the author. All the terebinthine oils, on exposure to light, underwent a similar change. The oil obtained from pine-seeds was said to possess this ozonific property in a most marked degree; oils of lemon and bergamot to a slight extent. The resin oils, however, showed a more decided reaction of this kind than ordinary oil of turpentine. Mr. Tichborne illustrated by experiment the action of these ozonified oils upon iodide of potassium. Mr. G. J. Stoney, F.R.S., read an exhaustive communication on the Cause of Interrupted Spectra of Gases.

THE ROTUNDO HOSPITAL, DUBLIN.

AT the meeting of the Dublin Obstetrical Society held on the 7th inst., Dr. George Johnston, the Master of the Rotundo Hospital, read the Report of that institution for the year ending November 1st, 1870. The opposition which was of late got up against maternity hospitals, unless when on a small scale, added to the interest which at all times attaches to the records of the great Dublin Lying-in Hospital. The statement that it is to lying-in hospitals puerperal fever owes its origin, is not borne out in the Report before us; and it is but just to add that the experience of recent years, at all events, affords no ground for the assertion. One thousand and eighty-seven women were delivered in the hospital in the twelve months reported on. The mortality was seventeen; of that number, six women died from peritonitis or from pyæmia. Of these, the first, a primipara, aged 25, died November 11th, 1869, of "peritonitis". The record states: "Fretting greatly; husband at sea; frightened by being brought to hospital; was told 'they were dying in it'." The second was a primipara, aged 24, who died of peritonitis: "admitted in feverish state; seduction; remorse; attempted suicide before admission." The third was a primipara, aged 23; she died of pyæmia: "most unhappy; drunken husband; child hydrocephalic; very foetid discharge on admission; pyæmia showed itself immediately." The fourth was also a primipara, aged 30, and died of pyæmia: "livid patch of inflammation on posterior part of right labia before delivery, which sloughed; patch appeared on middle finger of left hand and back of right ditto." The fifth was a young woman aged 24, who was delivered of her fourth child, and died of peritonitis: "symptoms appeared immediately; had been in great penury and mental distress, her husband being in gaol." The sixth was a primipara, aged 20, who died of pyæmia: "a case of seduction; great mental anxiety from time of admission." It is not a little remarkable that the date of the first case was November 11th, 1869; of the second, January 12th, 1870; of the third, March 13th; of the fourth, May 15th; of the fifth, September 16th; and of the sixth, October 13th. These dates bear out the statement in the Report that contagion had nothing to do with the cases, and that no hospital-miasm existed. It appears that much zymotic disease existed in the several districts from which the cases came. In one instance, a woman was received into the hospital from a house where scarlatina existed, yet she made a good recovery. Dr. Johnston alluded to the corroborative evidence afforded by these cases of the influence of mental causes in the production of puerperal disease. The Report returns the causes of death in the other eleven cases as "Carcinoma and gangrene of uterus;" "Rupture of uterus;" "Exhaustion on admission—died in seventeen hours;" "Gangrene of uterus—craniotomy—child hydrocephalous and fearfully putrid—discharge for three days before most foetid—died second day;" "Sloughing of uterus;" "Placenta prævia—admitted in a state of great ex-

haustion—delivered by the feet—sank in two hours afterwards;” “Pleuritis with pneumonia, admitted with intense dyspnoea—easy labour—died fourth day;” “Apoplectic convulsions—died thirteen hours after delivery;” “Placenta prævia—great exhaustion on admission—died in two hours after delivery;” “Pleuritic effusion—moribund on admission—Cæsarean section;” “Accidental hæmorrhage, brought in in a state of great exhaustion from this cause.” In eighty-three cases, the forceps was used; in five of these, the mothers died. Craniotomy was had recourse to in only two instances. Of many other points of interest in the Report, we have only space to allude to the foregoing. Dr. Kidd, the President, also Drs. Beatty, Churchill, McClintock, Denham, Atthill, Ringland, Sibthorpe, Fitzpatrick, and C. F. Moore, spoke in terms of strong commendation of the able Report, and made several interesting observations in reference to the subject. Dr. Johnston replied, and thanked the speakers.

PATHOLOGICAL SOCIETY OF LONDON.

THE opening meeting of the presidential year was held on Tuesday evening. Mr. Hilton, the new President, on taking the chair, returned his sincere thanks to the members for the honour they had done him in electing him—an honour which, he might say, he certainly did not deserve. He had belonged to the Society long ago, at the period of its formation; and had deserted it in a certain degree through egotism. He had himself long worked at pathology in his own hospital; and, when he came to the Society, there was often exhibited what he had already seen. But all that was changed now. Pathology was quite a different thing from what it was in those days; and he looked forward with pleasure to presiding over the meetings of the Society, and to the information which he was certain to receive. Numerous interesting specimens were exhibited by Dr. Payne, Dr. Crisp, Dr. Broadbent, Mr. Wagstaffe, and Mr. Fairlie Clarke.

THE COLLEGE OF SURGEONS' MUSEUM: COLLECTIONS OF SURGICAL INSTRUMENTS.

THE following letter has just been sent to every *Fellow* of the College, many of whom, as well as members, will no doubt comply with the laudable desire of the President in forming this valuable addition to the Hunterian Museum.

Royal College of Surgeons of England,
Lincoln's Inn Fields, London, W.C., Jan. 18, 1871.

Dear Sir,—It has often been remarked that there is no large collection of surgical instruments and apparatus in any museum or institution in Britain, such as might be referred to as indicative of the mechanical appliances of surgery, midwifery, and dentistry in past or present times.

Occasionally, individual teachers have made considerable accumulations, but these have generally been scattered again after death. Neither student nor practitioner has ever had it in his power to refer to any source of information excepting pictures in ancient or modern books, and these do not produce the effect on the eye or mind that would result from an examination of the palpable objects.

Knowledge of the past in surgery is of essential value to the present and future; and such a collection, in association with our ample bibliography, would go far to facilitate the efforts of those who desire to enlarge the practical details of our profession.

It has long been my anxious desire to see such a collection, but the task of its formation has appeared to me beyond the pecuniary resources, either of individuals or even of first-class teaching establishments.

I have seen many small collections rise and disappear in my time. There has been no interest on the part of successors to keep them together, or even to present them where they might be respected and carefully preserved.

With these impressions, I have ventured, in my official capacity, to bring the subject before the Council of the Royal College of Surgeons of England, and I have the satisfaction of announcing that the Council is prepared to sanction any reasonable expense to bring about the realisation of such a collection.

There is no institution in this country where such a scheme could be so readily or thoroughly carried out; none where such a collection could be, in a national sense, so usefully placed; and its association with the Hunterian Museum would be a graceful compliment to the memory of the founder of British scientific surgery.

As President of the College and a fellow-labourer, I venture to ap-

peal to you, on behalf of this scheme, and to request that you will kindly present such instruments, devices, and appliances as you may be able to spare or acquire from others who incline to cherish this intended national collection.

Any thing in the above category will be most thankfully received at head-quarters in Lincoln's Inn Fields, and nothing will be more acceptable than such mechanical memorials as will associate the names of by-gone and present Fellows and Members of this College with the history of British surgery.

Yours faithfully,

WILLIAM FERGUSSON, *President*.

BABY-FARMING.

MR. W. T. CHARLEY, M.P., and Mr. Ernest Hart, had an interview with Mr. Göschen on Thursday at the Poor-law Board on the subject of the proposed Bill for the Registration of Baby-farming, recently laid before the Home Office by the Society for the Protection of Infant Life, founded on the inquiries and suggestions laid before the readers of the BRITISH MEDICAL JOURNAL in past years.

ROYAL COLLEGE OF SURGEONS.

THE following is an abstract of the unconfirmed minutes of the Council on the 12th instant. The report from the Court of Examiners was approved, including a recommendation that, pending future arrangements, the preliminary examinations should be continued, and that the subjects for the present year should be the same as for the past year. The recommendation of the Museum Committee was adopted as to the accommodation to be provided for the collection of surgical instruments and appliances, and the printing of a Supplementary Catalogue of the Calculi. It was reported that no dissertations had been received for the College triennial or Jacksonian Prizes, whereupon the annual dividends received from the Jacksonian Fund was ordered to be invested and added to the principal. The President and Vice-Presidents were authorised to expend from the funds of the College such a sum as they deemed expedient for the effective celebration of the Hunterian Festival on the 14th proximo.

BRITISH MEDICAL BENEVOLENT FUND.

THE Annual General Meeting of the above was held on Friday, 13th instant; Dr. Burrows, F.R.S., presiding. The Report showed that during the past year the sum of £1,061 had been expended in the relief of 124 cases of distress, many of these representing large families. The charity has also afforded annuities, amounting in the aggregate to £605, to 33 persons. The Committee has on several occasions during the year found itself greatly straitened for want of means, and many deserving applicants have in consequence been but inadequately assisted. The appeal which has been issued and sent to every known member of the profession in Great Britain, does not appear as yet to have produced so good an effect as was hoped and expected, but the Committee feels assured that the quietly working British Medical Benevolent Fund only requires to be more fully known to be more liberally supported by those who are blessed with the health and means denied to many others. The following Officers and Committee were elected:—*President*—G. Burrows, M.D., F.R.S. *Vice-Presidents*—Edgar Barker, Esq., Sir H. Holland, Bart., M.D., F.R.S.; H. Bence Jones, M.D., F.R.S.; H. Sterry, Esq. *Trustees*—H. W. Acland, M.D., F.R.S.; G. Burrows, M.D., F.R.S.; Dr. G. C. Jonson; James Paget, Esq., F.R.S.; E. H. Sieveking, M.D. *Other Members of Committee*—E. H. Ambler, Esq.; E. L. Birkett, M.D.; W. H. Broadbent, M.D.; H. Bullock, Esq.; J. Churchill, Esq.; N. H. Clifton, Esq.; W. T. Dalby, M.D.; G. T. Dale, Esq.; Campbell De Morgan, Esq., F.R.S.; J. F. France, Esq.; T. Jervis, M.D.; J. Liddle, Esq.; W. Martin, Esq.; J. Morgan, Esq.; J. T. Mould, Esq.; H. R. Owen, M.D.; J. C. Steele, M.D.; R. Stocker, Esq.; C. S. Webber, Esq.; E. Parker Young, Esq. *Treasurer*—C. J. Hare, M.D. *Honorary Secretaries*—Stamford Felce, M.R.C.P. (Cases); R. Thorne Thorne, M.B. (Finance). Votes of thanks were passed to Messrs. Churchill, for the use of a room for the meetings; to the Treasurer and Honorary Secretaries; and to the Editors of the medical journals for their ready assistance in promoting the welfare of the Charity.

DONATIONS.—The Worshipful Company of Fishmongers have presented £100 to the Great Northern Hospital; and the Worshipful Company of Drapers, £52:10; William Loyd Jones, Esq., £50; Richard Spry, Esq., £31:10; J. Martin, Esq., £30; and Mrs. H. Marks, £10:10.

CORRESPONDENCE.

OUT-PATIENT HOSPITAL REFORM.

SIR,—In the *Lancet* for 15th October last, there is an interesting letter from Dr. Meadows referring to the work of the Committee on Out-patient Hospital Reform. The labour devoted to such work, and the incidental expenses, are greater than many may suppose. Labour can be given gratuitously—and it has been liberally bestowed in this instance—but pecuniary expenses must be met by funds.

The meeting over which I had the honour to preside when the Committee was appointed was large; and I am sure that it is only needful to make it known, through the medium of the medical journals, that about thirty pounds are required to liquidate the needful outlay in regard to printing and otherwise, when an immediate response will be the result.

Dr. Meadows informs me that five shillings from every one present on that occasion would amply make up what is required; and I venture to hope that he and the other gentlemen of the Committee will be speedily relieved of all pecuniary responsibility.

Donations should be sent to the Treasurer, Dr. Meadows, 27, George Street, Hanover Square.

I am, etc.,

WILLIAM FERGUSON.

TARIFF OF MEDICAL FEES.

SIR,—In noticing the captious criticisms of your Sunderland correspondent on the Tariff of Medical Fees, I would briefly remark that the Council of the Shropshire Ethical Branch, in preparing it for the especial guidance of their own members, never assumed their labours to be otherwise than imperfect. They are conscious, however, that no pains were spared to render it practically useful to their junior Associates, and with that view addressed a circular, embodying the proposed Tariff, to some two hundred practitioners in the several counties of England, soliciting information and suggestions for its improvement.

While fully admitting its various defects, the Council are led to infer—from the fact that the able and cautious editor thought well, unsolicited, to print it *in extenso* in the pages of the JOURNAL, as well as from the general approval accorded to it—that their labours to effect a solution of an admittedly difficult question have not been altogether unsuccessful or unappreciated. Be that as it may, I beg to assure your correspondent that the Council will be happy to receive (addressed to Dr. Styrup, Shrewsbury) any practical suggestions for basing the charges on income in place of rental. Hitherto they have found the difficulties attending it insurmountable. I would also incidentally observe that, if your correspondent had carefully perused the introductory notes, he could not have failed to see the reason assigned by the Council for adopting rental rather than income as the basis of their division into classes.

To a practical, reflective mind, the reason “why, for an ordinary visit, Class 2 should begin lower than Class 1 ends”, must be so obvious that I will not insult your correspondent’s understanding by offering an explanation. In regard to the fifteenth explanatory note, page 6, the writer frankly admits that, in revising it for the printer, he made a careless, palpable blunder, in extenuation of which he can only plead extreme pressure of work at the time. By erasing the words “As for advice at practitioner’s house”, and inserting “Tariff No. 2”, the error will be rectified.

In concluding my remarks, I would remind your correspondent that the Tariff is more especially intended as a suggestive guide for the junior practitioner, and must be regarded as elastic, not arbitrary; and if, moreover, he be a practitioner of varied and extensive experience, it will be unnecessary to inform him that to frame a Tariff adapted (except in its general principle) to every locality and contingency is—at least in the opinion of the Council—impracticable; in fact, each practitioner must be more or less guided in his charges by local circumstances and personal knowledge of the social and pecuniary position of his respective patients.

I am, etc.,

January 1871.

ONE OF THE COUNCIL.

A VERY successful ball was held this week in aid of the funds of the University College Hospital, the family and friends of the staff, medical officers and students, taking an active interest in this pleasant meeting, and largely contributing to its success. A balance of about £150, we believe, was realised for the funds of the hospital.

THE POOR-LAW MEDICAL SERVICE
OF
GREAT BRITAIN AND IRELAND.

VACCINATION BY POOR-LAW MEDICAL OFFICERS.

THE *Pall-Mall Gazette* has the following pertinent comment on a note which we published last week on this subject.

“Our sanitary code is not so complete and efficient that we can afford to lose through maladministration the benefits of the few useful and intelligible enactments that it contains. The commendable strictness with which magistrates punish breaches of the provisions of the Vaccination Acts is of little avail, since we cannot be sure that a large proportion of such offences do not escape their jurisdiction altogether; and the separation of the office of registrar from that of vaccinator is admirably calculated to favour the escape of offenders against these salutary statutes. A Poor-law medical officer, writing to the BRITISH MEDICAL JOURNAL, contrasts our condition in this respect with the state of things existing in Ireland. Here we have the registrar of births isolated from the vaccinator, ‘two badly paid officers working in the dark’; while in Dublin the offices of registrar, vaccinator, and dispensary physician are amalgamated in one person. It is his duty to forward to the Board half yearly a list of persons who have not been vaccinated. These the Board prosecutes. The dispensary physicians can trace each case as they register the birth, and if death takes place, the death also. If vaccination has been performed in the district by any other medical man, a certificate to that effect is furnished to them. If they do not receive a certificate of vaccination and have not registered the death, they inquire the reason, and, if not answered satisfactorily, they prosecute. To this system the writer attributes the comparative immunity of Ireland from the disease, which is assuming such alarming proportions among ourselves. We surely need not wait for the distant day of general sanitary reform to introduce so simple an improvement into our own administration. This at least is a piece of Irish legislation which need not be permitted to remain ‘exceptional.’”

A GOOD EXAMPLE.

MR. SLEMAN, the indefatigable Local Honorary Secretary of the Poor-Law Medical Officers’ Association, has succeeded in getting all the Poor-Law medical officers of the Tavistock Union to join the Association. Union is strength. Would that all local honorary secretaries could and would go and do likewise. Every Poor-Law medical officer should join the Association and help forward the movement by sending up his quota of information on the question of Poor-Law reform.

POOR-LAW INQUIRY.

THE long-continued discord between the master, guardians, and the medical officer of the workhouse of the Tiverton Union, will shortly be the subject of a Poor-Law inquiry. It is to be hoped that Mr. Göschen will direct that a thorough investigation be instituted. The Poor-Law Medical Officers’ Association have received information from which it would appear that obstacles have been thrown in the way of the senior medical officer doing his duty. In the interests of the sick-poor, it is of the utmost importance that every facility should be afforded the medical officer to efficiently carry out his onerous and responsible duties.

POOR-LAW MEDICAL OFFICERS’ ASSOCIATION FOR SCOTLAND.

AT a meeting of the Poor-Law Medical Officers’ Association held at the Medical Club, letters were read from Poor-Law medical officers of Scotland stating that they were most anxious to form a Poor-Law Medical Officers’ Association for Scotland. Preliminary steps have already been taken; and doubtless the same success will attend their efforts as that which has already crowned the efforts of the English and Irish Associations.

MEDICAL RELIEF IN SCOTLAND.

THE question of medical poor-relief in Scotland, and medical charities, has already engaged the attention of the profession of Scotland. A Joint-Committee of the Colleges of Physicians and Surgeons has been formed to investigate the matter. The facts brought forward by Dr. Joseph Rogers, the President of the Poor-Law Medical Associa-

tion of England, will receive due consideration from the Committee. Doubtless the statistics of a starved Poor-Law medical service in Scotland will be equally startling as demonstrating the relationship of sickness to pauperism.

SMALL-POX ARRANGEMENTS.

THE following resolution has been passed at a meeting of the Council of the Poor-Law Medical Officers' Association, held at the Medical Club, 9, Spring Gardens.

"The Council, considering the present administrative arrangements for the performance of vaccination in the metropolis where a frightful epidemic of small-pox is now raging, desire to point out that the plan adopted in Ireland has been eminently successful, whilst the mode now adopted in London has failed, and is not calculated to effect so desirable a consummation; they therefore recommend that the Dublin system of amalgamating the offices of district surgeon, vaccinator, and registrar should be adopted throughout England, whereby a complete system of vaccination might be secured at the smallest public cost, and small-pox be averted as completely as it now is in Ireland. They see especially, with regret, at the present moment that, whilst a severe epidemic is present the facilities for vaccination in London have, by the dismissal of many Poor-law vaccinators, been seriously curtailed."

A DOUBLE TESTIMONIAL.

THE nine hundred inmates of the Kensington Workhouse of St. Margaret and St. John's took the occasion of a feast and musical entertainment this week to present a handsomely fitted inkstand, etc., to Dr. Dudfield, their medical officer. They sang some capital verses composed in his honour, and the whole scene was an earnest and affecting tribute to a medical officer known throughout the service as one of its brightest ornaments. The guardians, we observe in another column of the same paper, have re-appointed Dr. Dudfield, and have appropriately testified their appreciation of his services by cutting down his salary fifty pounds a year. Such thoughtful generosity deserves to be widely known.

LIBERALITY NEUTRALISED.

THE guardians of St. George's Union, having nearly doubled the duties of Mr. Godrich, senior, after thirty years of completely satisfactory service, re-appointed him at an apparent increase of £75 a-year. The following week they informed him that he must appoint and pay a dispenser, thus compelling him to give away with one hand the premium he was supposed to receive with another. We hope this matter will be reconsidered. Mr. Godrich is one of the ablest and most highly esteemed practitioners in London, and his long services have always been an honour to the guardians and a benefit to the sick poor.

VACANCIES.

DEPWADE UNION, Norfolk—Medical Officer for District No. 4.
LONGTOWN UNION, Cumberland—Medical Officer and Public Vaccinator for the High District: applications, 21st; election, Feb. 6th.
ROCHDALE UNION, Lancashire—Medical Officer for the Butterworth District.
SKIRLAUGH UNION, Yorkshire—Medical Officer for the Workhouse: applications, 26th; election, 27th.
WEST DERBY UNION, Lancashire—Assistant Medical Officer to the Workhouse: applications, 24th.
MORVEN, Argyleshire—Parochial Medical Officer.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

THE POOR-LAW MEDICAL OFFICERS' IN CONNAUGHT.

WE are not surprised at the numerous complaints that we have from time to time received from the medical officers of the province of Connaught that their districts are the largest and poorest in Ireland, and that they themselves are the hardest worked and worst paid of their hard worked and ill paid class. The area of Connaught is over four millions of acres. This is subdivided amongst 112 medical officers. The average area under the charge of each somewhat exceeds 60 square miles. There are but seven apothecaries and eight midwives connected with these dispensaries. The real size of some of these dispensary districts is so enormous that it will be interesting to give their names. Roundstone, for instance, is 163 square miles in extent. This is under the charge of two medical men; we presume, therefore, that each has more than 80 square miles of country

under his care. The area of Spiddal is nearly 100 square miles, under charge of one medical officer. Oughterard is over 100 square miles, and Tuam also, as well as Ballina and Crossmolina. Achill has over 170 square miles, under the care of two medical officers. There is an island attached to this district, as there are to some others in this province. But the medical man who holds Bangor Dispensary, in the Belmullet union, has the privilege of holding a territory of nearly 230 square miles under his sole control, without the assistance of either an apothecary or midwife. There is something almost ludicrous in this statement, were it not that such a condition of things must be attended occasionally with very bad results to the sick poor. The nature of the country is such that these enormous distances are often greatly increased, a bog or a morass, a lake or a mountain, rendering it necessary to make a detour of ten or fifteen miles to reach a place really but three or four miles distant as the crow flies. We cannot wonder, then, that the medical officers of Connaught should consider that they are very hardly worked. As to their salaries, we find them so low as £35 a year; £40, £50, £60, £70, £80, not unfrequently figure. Roundstone, to which we have already alluded, has £80. Spiddal, £90; Oughterard, £80; Tuam, £95; and so on; while Achill, with its island attached, has £80; and the gentleman who has the privilege of holding the vast territory of 230 square miles at Bangor, receives the munificent salary of £101 10s. 8d. per annum. We have had extraordinary stories from dispensaries with islands attached; the doctor called out at night to attend a woman in her confinement, driving five or six miles to the coast, then going in an open boat to the island, to walk some miles through a morass or over rocks to a wretched hut, where, a storm getting up, and the boatman having left for the mainland, he has been weather-bound for days, his disconsolate family perhaps receiving, at the end of a week, a letter from Scotland as to his whereabouts. A summer tour in the west of Ireland is no doubt a very delightful trip; but a life long spent at Achill, in Arran, or Innisboffin, is not so enjoyable.

We cannot but think that if the medical officers of Connaught would, through their union and county representatives, bring these facts before the notice of their parliamentary representatives in the various counties and boroughs of that province, their condition would be ameliorated. Dr. Brady, member for Leitrim, has ever proved their friend; and Mr. Gregory, member for Galway, has always been favourable; and no doubt the assistance of the other provinces of Ireland would be gladly given for the common weal. We greatly fear that splitting up the cause for the sake of individual interests, and perhaps occasional jealousies arising from the formation and limitation of associations to unions or even cities, has proved injurious to the general interests of the Poor-law medical officers of Ireland. We trust that that day has passed, and that, in the present formation of the Poor-law Medical Officers' Association of Ireland, they will work unanimously with and for each other, and go on the broad principle that unity is strength.

THE LIMERICK BOARD OF SUPERINTENDENCE.

THE Limerick Board of Superintendence have recommended the Superintendent-General to allow Mr. Bouchier a superannuation of £7:14:8 annually, after twenty years' service as apothecary to the City Jail at £16 per annum.—At the same meeting of the Board we read an account of a scene in which ample justice was done to the honourable and unimpeachable services of Dr. Gelston, the visiting physician, on whom some absurd imputations had been made, which were now wholly withdrawn and honorably atoned for by resolutions courteously and agreeably worded. In the course of the discussion, a Mr. Myles managed to make himself supremely ridiculous, but was put down by the good sense of the chairman and the board.

ABUSE OF DISPENSARY TICKETS.

AMONG the abuses of the facility with which dispensary tickets are granted under the Irish Poor-law system is their distribution among factory hands. Dr. Keely, the dispensary medical officer at Drogheda, has very properly called the attention of the guardians to the fact that he is called upon to attend and afford medicines to the *employés* of Messrs. Whitworth at the expense of the ratepayers. The guardians have called the attention of Messrs. Whitworth to the propriety of instituting a fund in their works for medical attendance and relief during sickness. We recommend this subject to the notice of dispensary medical officers generally.

VACANCIES.

BALLYSHANNON UNION, co. Donegal—Medical Officer and Public Vaccinator: the Ballintra Dispensary District: 24th.

OBITUARY.

SIR JOHN FIFE.

ONE of the ablest and most popular practitioners in the north of England has just been removed from us. Sir John Fife, for many years senior surgeon to the Newcastle-on-Tyne Infirmary, died on Monday, January 16th, after a few hours illness, at Reedsmouth, in North Tyne-dale, the residence of his son, Major Fife. For more than fifty years Sir John was actively engaged as a general practitioner in Newcastle. His father, and his brother George, were likewise in the profession, but died several years ago in London. Few medical men have enjoyed a more successful career; few, indeed, have health and strength given to them to persevere for a full half century in the active work of our most laborious profession. Still more rarely is it given to one to be a popular medical man, and at the same time to take a leading part in the municipal and general political questions of the day. From 1815, when he commenced practice in Newcastle, to 1869, when he retired from the Colonelcy of the first Newcastle Rifle Volunteers, there was hardly a single scheme for the improvement of the town or for the benefit of his fellow creatures in which the subject of our notice did not take an active part. In 1814-15, John Fife, who had then just passed the College of Surgeons, was at Woolwich as an assistant-surgeon in the army; and although he did not visit the then great battle fields of the continent, he yet saw much of the after treatment of gun-shot wounds, and ever after retained a special predilection for the study of military surgery. In the latter year, he returned to Newcastle, and commenced practice with his father. He appeared in this then somewhat prosaic country town as an exquisite in dress, and the old people shook their heads and expressed their fears that one who devoted so much time and attention to dress, would never sober down to the mill-house round of general practice. But the young dandy, for there were *dandies* still in those days, was made of sterling good material. From the first, he distinguished himself by his activity and his exact attention to his profession. He often made a journey of twenty miles on horseback into the country, and returned before the majority of his professional brethren had left the breakfast table. Throughout life he kept up this habit; and even when past his seventieth year, he has been met on a bitter winter's morning at 5 A.M. going off to some distant call in Yorkshire, or in the west of Durham. At a very early period of his career, he was summoned in haste to a dangerous case of strangulated hernia, on the borders of Yorkshire. It was then late in the evening, and from some cause or another no conveyance could be obtained. John Fife mounted a good horse, rode through the night the distance of forty-four miles to the patient, operated, and returned the next afternoon to his ordinary work in Newcastle. The patient's life was saved by his promptitude and skill, and for forty years afterwards, as he told us, the good action bore to him its reward. As a surgeon, Sir John held decidedly a high position in the north of England; as an operator he was for many years at the head of the profession in Newcastle. One great cause, however, of his success in practice, was his behaviour at the bedside. He was decided, careful in what he said to the patient and to the relatives; but, above all, he was most charming in his sympathising manner in the sick room. To other practitioners, too, he endeared himself by his exactness in appearing at the time appointed. He was never known to miss an engagement by five minutes. In the earlier part of his career, he took a most active part in the great political questions of the day. His zeal for the liberal cause led him into correspondence with the most advanced liberals of the day; and at one time it was feared that he would have wrecked his prospects in life by associating himself with the Chartists. But, liberal though he was, he saw far ahead the dangerous rocks on which the Chartist demands would be wrecked, and he left them in good time. In 1835, John Fife was elected a member of the New Reformed Corporation, and at the first meeting of the New Council he was made an alderman. In 1839, a year memorable for the Chartist outbreaks, John Fife was Mayor of Newcastle. In July of that year occurred the Chartist outbreak, known here as the "Riot of the Forth", when the Mayor distinguished himself by his intrepidity, and deservedly obtained the honour of knighthood. Before this time, viz., in 1834, he had, in conjunction with several of his brother practitioners, founded the medical school of Newcastle-on-Tyne. At first the lectures to the students were given in his own surgery, but soon afterwards the premises of the old corporation of barber-surgeons were obtained for that purpose. In 1844, in consequence of some disagreements with the then lecturers, he resigned the chair of surgery; but in 1851 he resumed it in one of the schools that was formed on the final disruption of the old one. On the conclusion of the dispute, he remained attached to the school till

he finally left it in 1865. During the three or four years' contest between the rival schools, the writer of this notice was opposed to Sir John Fife, but throughout the whole period he was much struck with the ability, the perseverance, and the indomitable spirit with which he fought the battle. He was an able speaker, cool and collected as when he was performing a surgical operation; he was a fluent lecturer, forming his discourse without notes from his vast experience. He rarely, if ever, published anything, but he could write well and easily when occasion required. For thirty years he was surgeon to the Infirmary here, and he would have obtained this honour even sooner if his strong liberal opinions had not stood in the way. It was not till he had passed his seventieth year that his active well-knit frame began to show symptoms of decay. He still continued to ride on horseback, but was obliged subsequently to relinquish this favourite exercise, from repeated attacks of hæmorrhage from the bladder. Two years before his death he retired altogether from practice, and soon afterwards was operated upon for stone, at Houghton Castle, the residence of his son-in-law, George Crawshaw, Esq., by his friend Sir William Fergusson. Sir John himself had little hopes of recovery from this severe trial, but he underwent it with the coolness and intrepidity that were his characteristics through life. He was no member of the anti-tobacco league; he enjoyed his cigar or pipe as much as any other sportsman. He smoked his last remaining tobacco after breakfast prior to the operation; but three hours after it was done he expressed a wish for another pipe, and was much disappointed to find that it was not forthcoming! His recovery was slow, but he eventually regained his strength, and passed the remainder of his days at Reedsmouth with his family. Of his four sons, two have distinguished themselves in the army, and one carries on his father's practice in Newcastle.

The great characteristics of Sir John Fife were his untiring activity, his punctuality, and his earnest devotion to his patients. No one, however, enjoyed more thoroughly a day's relaxation in the hunting field; no one appreciated more perfectly the beauties of natural scenery at his beautiful little estate of Gortonloisk in the Highlands. In society he was always genial and spoke well; in all political questions he took to the last a warm interest; while his kindness to his patients and his solicitude for their welfare will be remembered in this neighbourhood for many long years to come.

THOMAS MAYO, M.D., F.R.S.

THE death of Thomas Mayo, M.D., F.R.S., formerly President of the College of Physicians, and a distinguished writer on psychological subjects, is announced as having occurred at Corsham on the 13th instant. He was born in London in 1790, being a son of the late John Mayo, M.D., and from Westminster School proceeded to Oxford, where he became a Fellow of Oriel College, and took the degree of M.D. in 1818. In the following year he became a Fellow of the Royal College of Physicians of London, and in 1856 he was elected President of that Institution. Dr. Mayo acted for many years as Physician to the Marylebone Infirmary. His principal works are: *Elements of the Pathology of the Mind*, 1838; *Clinical Facts and Reflections*, 1847; *Outlines of Medical Proof Revised*, 1850; and a treatise *On Medical Testimony and Evidence in Cases of Lunacy, with Essays on Soundness of Mind*, 1854.

Dr. Mayo had long retired from practice, and had almost outgrown the remembrance of this generation. But he was well known and highly respected by his contemporaries, and is still remembered by many of us as a physician of great culture, excellent powers of mind, and high character. He was of quiet and retired habits, and for many years lived much in the country.

ROBERT SPEEDY, L.K.Q.C.P.

WE regret to announce the death, at Winchester, on the 3rd instant, of Dr. Robert Speedy, Surgeon of the 46th Regiment, nephew of Lieut.-Colonel Speedy, Royal Hibernian Military School, eldest son of the late Dr. Speedy, of Dublin, and brother of the well-known treasurer of the Irish Poor-law Medical Officers' Association. He entered the army on the 11th March, 1853; served in 1st West India Regiment, then on the Staff at the Cape of Good Hope, afterwards in the 45th Regiment, which corps he accompanied to India; and latterly in the 46th Regiment. Dr. Speedy was universally beloved by his brother officers and all who knew him.

THE Guardians of the Cuckfield Union have presented Dr. Marshall Monckton, one of their district medical officers, with a fee of five guineas, for performing an operation upon and curing a pauper who had been in receipt of relief on several occasions for upwards of three years.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners, on Jan. 17th; and, when eligible, will be admitted to the pass examination.

Messrs. W. C. Sparrow, Robert L. Sparrow, Thomas J. Hughes, and William Murray (Dublin School); Henry Pigeon and John Sprod (Bristol School); Joseph H. Mitchinson and William D. Bowkett (London Hospital); Henry S. Payne and Robert Birch (King's College); Arthur H. Bateman and Charles E. Alford (University College); Henry Thompson and Francis E. Thurland (St. Bartholomew's Hospital); Charles H. Newby (St. Thomas's Hospital); Joseph O. Pires (Bombay); Henry M. Aspinall (Manchester School); George A. Critchett (Middlesex Hospital); David Munro (Kingston, Canada); Walter Hallam (Sheffield School); and William G. Nash (Guy's Hospital).

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, January 12th, 1871.

Cass, Stafford Thomas, 20, St. George's Road, S.W.
Hollinshead, Francis, Selby Oak, near Birmingham

MEDICAL VACANCIES.

THE following vacancies are announced:—

BEDFORD, County of—Surgeon to Visitors of Houses Licensed for Lunatics.
BRISTOL ROYAL INFIRMARY—Assistant-Physician for the Out-patient Department; Assistant-Surgeon for Out-patient Department: 28th.
CHELtenham GENERAL HOSPITAL AND DISPENSARY—Surgeon: applications, 21st; election, 31st.
CLONMEL DISTRICT LUNATIC ASYLUM—Assistant Resident Physician: applications, 25th; election, Feb. 2nd.
COUNTY OF WICKLOW INFIRMARY—Surgeon; Apothecary; applications, 31st; election, Feb. 1st.
EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Ratcliff Cross—Surgeon: applications, 23rd; Weekly Board, 24th.
HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park—Assistant-Physician: applications, 26th.
KENT AND CANTERBURY HOSPITAL—Assistant House-Surgeon and Dispenser: applications, 26th; election, 27th.
KENT COUNTY OPHTHALMIC HOSPITAL, Maidstone—Consulting Surgeon: March 18th.
MANCHESTER ROYAL INFIRMARY—Physicians' Assistant.
MIDDLESEX HOSPITAL—Resident Medical Officer: Medical Committee, 21st.
NEWCASTLE-UPON-TYNE DISPENSARY—Two Visiting Assistants: applications, 26th; duties, Feb. 24th.
NORTH ST. PANCRAS PROVIDENT ASSOCIATION—Physician.
ROYAL SURREY COUNTY HOSPITAL, Guildford—Medical Officer: Feb. 23rd.
SHEEPWASH, Devonshire—Medical Officer for the Foresters and other Clubs.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

***GAYTON**, William, L.R.C.P.Ed., appointed Medical Superintendent of the Small-pox Hospital, Homerton.
TOMES, C. S. Esq., appointed Lecturer on Dental Anatomy and Physiology at the London School of Dental Surgery, Soho Square, *vice* *G. A. Ibbetson, Esq., resigned.
***WARING-CURRAN**, J., L.K. & Q.C.P.I., elected Surgeon to the Pleasley Vale Works, near Mansfield.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

CLOVER.—On December 6th, 1870, at 3, Cavendish Place, Cavendish Square, the wife of *J. T. Clover, Esq., of a son.
MILLER.—On January 14th, at St. Vincent Street, Glasgow, the wife of *Hugh Miller, M.D., of a daughter.
PICARD.—On January 11th, at Abbey Road, London, the wife of P. Kirkpatrick Picard, M.D., of a son.
PLAYFAIR.—On January 12th, at Curzon Street, the wife of *W. S. Playfair, M.D., of a son.
SMITH.—On January 13th, at Cobham, Surrey, the wife of *Rowland Smith, Esq., Surgeon, of a daughter.
THOMPSON.—On January 15th, at Leamington, the wife of *James Thompson, M.B., of a daughter.

MARRIAGES.

ARMSTRONG, Henry, Esq., third son of *John Armstrong, M.D., of Gravesend, to Janet, eldest daughter of George ELPHINSTONE, Esq., of Oakfield House, Streat-ham Common, on January 12th.
HAIRE, John H., Esq., Retired Surgeon R.N., to Isabella, daughter of the late Robert TENNENT, Esq., of Glasgow, at Kingston, Portsea, on January 12th.
KING, Henry Kirwan, M.B., of Welwyn, Herts, to Sara, third daughter of the late Donald Mac Taggart Esq., of North Lodge, at Aberdeen, on January 12th.
MIDDLEMIST, Robert P., Esq., Surgeon, of Bedford Place, Russell Square, to Alice, youngest daughter of the late James REID, M.D., of Brook Street, on January 14th.

DEATHS.

FIFE, Sir John, of Newcastle-on-Tyne, at Reeds-mouth, aged 75, on January 9th.
FITZ PATRICK. On January 13th, aged 44, Mary Anne Ulrica, wife of *John Fitz Patrick, M.D., retired Surgeon-Major Madras Army.

MAYO, Thom, M.D., F.R.S., formerly President of the Royal College of Physicians, at Crisham, Wiltshire, aged 81, on January 13th.
***SCARR**, R. T., Esq., Surgeon, at Bishop's Stortford, aged 61, on January 1st.

BREAKFAST DELICACIES.—According to the *Chemist and Druggist*, Americans are manufacturing golden syrup with sulphuric acid and starch. It is said to blacken the teeth and "chaw up the gizzard". From the same land of innocence we read of currant jelly being made out of old boots.

OPERATION DAYS AT THE HOSPITALS.

MONDAYMetropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAYGuy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.
WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.
THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAYWestminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.
SATURDAYSt. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. F. J. Gant, The Lettsoman Lectures on Excisional Surgery of the Joints; The Conditions appropriate for Excision; The Operations; [After-Treatment and Results. Lecture II, "The Hip and Ankle."
TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. French, "On the Cause of the *Post Mortem* Muscular Contraction in Cholera"; Dr. Robert Lee, "Cases of Hysteria, with Sneezing"; Dr. Meryon, "Suggestions in support of a System of Rational Therapeutics."—Ethnological Society of London, 8 P.M. Rev. Dr. Steere, "On the Languages and Tribes of East Africa"; Dr. Eyschmacker, "On African Weapons and Implements"; communicated by Sir J. Lubbock, Bart., M.P., "A Zulu Law Case".
FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Silver, "On the Use of Veratrum Viride in Rheumatism"; Mr. Teevan, "On Four Cases of Operating for unusually large Calculi"; Dr. Handfield Jones, "Two Cases of Chorea, with Urinary Analyses"; "On Puncture in Anasarca"; Dr. Broadbent, "On Paralysis of the Soft Palate resembling Diphtheritic Paralysis".

EXPECTED OPERATIONS AT THE HOSPITALS.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Thursday, January 26th. Operation for Tumour of Orbit, by Mr. Reeves.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

MR. BRADLEY's, Mr. Trotter's, Mr. Lawson Tait's, and Mr. Lane's papers shall have early insertion.

THE letter which we last week published on Small-pox in Hospitals, from Mr. C. Roberts of Bolton Row, was erroneously attributed to Dr. F. T. Roberts of University College Hospital.

ERRATUM.—In Dr. Banks's paper in the JOURNAL of January 7th, page 2, column 1, line 6 of third paragraph, for "syrup of the sulphate of iron and quinine", read "syrup of the phosphate of iron and quinine".

ADMINISTRATION OF HYDRATE OF CHLORAL.

SIR,—In answer to Dr. C. H. T., I beg to suggest the following formula, which I have frequently prescribed, and have myself taken. I have never found or experienced the least complaint or intolerance of the chloral hydrate thus administered. Hydrate of chloral, 20 grains; syrup of tolu, syrup of orange-peel, each 3i; water to 3i. The dose to be taken diluted in at least half a tumbler of water. It may not be out of place to state that, as the hypnotic effect is often almost immediate, the patient should be in bed when the draught is taken.

December 1870.

I am, etc.,

EXPERTO CREDE.

NEW MEMBERS.

COMMUNICATIONS have been received from the under-mentioned gentlemen, and the necessary steps have been taken towards election into the Association, as to which they will receive official notice:—

Dr. J. MacLachlan, Walsall; Mr. M. Coates, Devonport; Mr. H. Crutchley, Alsager; Mr. W. Cockcroft, Catterick, Yorkshire; Dr. W. S. Irvine, Pitlochry, N.B.; Dr. J. Currie, Lydney, Gloucestershire; Dr. E. Lynes, Coventry; Mr. J. Jones, Cardiff; Dr. G. C. Phipps, Manchester; Dr. W. J. Marshall, Greenock; Mr. J. Caldwell, Lanark; Mr. R. W. Egan, Dublin; Mr. H. Jay, Chippenham; Mr. T. McClure, Wellow, Bath; Dr. W. W. Campbell, Dunse, N.B.; Dr. W. Kennedy, Wick, N.B.; Dr. J. Carmichael, Burntisland, N.B.; Mr. W. Nuttall, Heywood, Lancashire; Dr. J. Simpson, R. N. Hospital, Stonehouse; Dr. J. Coats, Glasgow; Mr. W. J. Barkas, Boroughbridge, Yorkshire; Mr. J. G. T. Forbes, Woolwich; Dr. J. Young, Edinburgh; Dr. W. M. Crowfoot, Beccles; Mr. P. R. Cresswell, Merthyr Tydfil; Mr. T. Batten, Coleford, Gloucestershire; Mr. F. Bateman, Canterbury; Dr. W. Leishman, Glasgow; Mr. C. Heaton, Leek; Mr. P. Porter, Tideford, Cornwall; Dr. A. Mackintosh, Callington, Cornwall; Mr. Wade, H.M.S. *Impregnable*, Devonport; Dr. T. A. Chapman, Hereford; Dr. J. Dobbie, Glasgow; Mr. J. H. Wathen, Fishguard, S. Wales; Dr. M. T. Sadler, jun., Barnsley; Mr. E. W. S. Davis, Aberdare; Dr. J. A. Innes, Dufftown, Banffshire; Mr. D. Havard, Newport, Pembrokeshire; Mr. W. Summerhayes, Ealing; Dr. H. J. Young, Bridgnorth; Mr. J. Roberts, Golcar, near Huddersfield; Mr. J. F. McMahon, Market Deeping; Mr. G. Richards, Saundersfoot, Pembrokeshire; Mr. J. N. Stevens, Plymouth; Mr. T. Buxton, Fazeley; Mr. W. B. Thomson, Edinburgh; Mr. Ed. Crickmay, Laxfield Villa, near Framlingham; Mr. S. F. Underhay, Gussage All Saints, Dorset; Mr. T. Wise, Castletown, Isle of Man; Mr. T. Mudge, Bodmin; Dr. C. J. Workman, Teignmouth; Mr. J. King, Stratton, Cornwall; Dr. J. Worrall, Adare, co. Limerick; Dr. M. G. Painter, Connemara; Dr. H. R. Howatt, Glasgow.

MEDICAL CO-OPERATION.

UNDER this head, the *Daily Telegraph* has the following paragraph:—"The friendly societies of Preston, viewing as a piece of 'trade combination', very detrimental to their interests, the agreement among the surgeons in that town to increase their rate of charges for attendance as 'club doctors', joined together, a twelvemonth ago, in establishing a provident dispensary, the first annual report and balance sheet of which institution have just been issued. After paying for furniture and other expenses, which were necessarily heavy at starting, a balance of more than £20 remains in hand; and this, too, after a heavy defalcation by one of the officers. The dispensary has enabled many poor persons not connected with the benefit societies to obtain good medical attendance who would otherwise have been almost compelled to forego such necessary aid, or to apply to the parish. Our informant naively adds that 'several of the Preston doctors have recently given up their carriages.'" There are probably two sides to this story, and we should be glad to receive some further details from our members in Preston. "Medical clubs" and "provident dispensaries" are cognate institutions, which equally tend to encourage providence and self-reliance among the poor; and we do not understand the sort of opposition in which they are here described.

A MONTHLY medical review appears this week in its first number, under the title of the *Doctor*. It proposes to "give an epitome of the practice and literature of the medical profession at home and abroad"; and to "present in a few paragraphs the pith of the periodicals, in such a manner that those who desire to enter more fully into any subject may learn where to find the latest researches upon it." We wish success to the new venture, but at present there is a very large gap between its promise and its performance. Its review of home literature is absurdly meagre, and of foreign literature by far more so. Nor is it of any real service as a guide; for in most instances it does not indicate its source; nor does it in any instance do so with proper exactness. Its first article is a badly written abstract of Dr. Gairdner's paper on Bronchitis with Dropsy, from the *BRITISH MEDICAL JOURNAL* of December 17th, entirely unacknowledged; its second is an abstract of Dr. Gee's notes on Relapsing Fever, from the *JOURNALS* of November and December, equally without acknowledgment or reference; its third is a long but very careless and imperfect note on the metropolitan epidemic of small-pox, from various sources, equally without references, and without exact data of any kind; its fourth is an abstract of Dr. Sansom's paper on Sulphocarbolates, from our pages of December 24th, also without reference or acknowledgment; and, later on, a page is filled with an abstract of Mr. W. Adams's paper on Subcutaneous Section of the Thigh-Bone, from our number of December 24th, of course without the engravings, which adds so much to the value of that important contribution to surgery, and equally without any reference to the source at which the paper is to be found. We appreciate the compliment of these copious extracts, but we do not understand on what ground this sort of proceeding can be justified, or why the fair promise of the programme of the first page is so entirely belied by the unfair performance of the later pages.

VACCINE LYMPH.—Can any member oblige the writer by informing him where fresh vaccine lymph from the cow may be obtained? A notice appeared in the *BRITISH MEDICAL JOURNAL* lately, but the address has been forgotten.—E. M. D.

A YOUNG MEMBER.—It is doubtful if there is any opening at Polperro, Polruan, or Fowey, Cornwall. The neighbourhood is well occupied.

ERRATUM.—In remarks on Dr. Bradbury's Case of a Rare Form of Pulmonary Hæmorrhage, in *JOURNAL* of January 14th, page 35, column I, line 7, for "fluid", read "florid".

TWO ASSOCIATES.—The Fellows of the College are not entitled to wear a gown or cap. The only dress of the description mentioned is confined to the President and Professors. For the former there are three gowns. One, worn on state occasions, is scarlet, covered with gold lace, with a little black silk hat of three corners, last worn, we believe, by Sir William Blizard. Another is of black silk, with purple facings, and covered with frogs, worn on semi-state occasions; and the third is a plain black silk gown, with crimson facings. That of the professors is the counterpart of the last mentioned. The only members of the Council entitled to wear the gown on public occasions are those gentlemen who have passed the chair.

HYPODERMIC INJECTION OF MORPHIA.

SIR,—I think "Apo-dyne" will find in "Nepenthe, double strength," as prepared by Ferris & Co., Bristol, all he desires. Nepenthe is of the same strength as tincture of opium. I am, etc., H. ERNEST TRESTRAIL, L.R.C.P., etc.
Harston, Cambridge, December 1870.

IS RE-VACCINATION NECESSARY?

SIR,—Now that small-pox is raging in London, and the question of vaccination and re-vaccination is becoming one of the greatest importance, the following statistics may be of service to some who, like myself, are interested in large schools and institutions.

We have just had a mild case of small-pox at the Orphan Working School, Haverstock Hill; and, as a preventive measure, my partner (Mr. S. S. Alford) and I have vaccinated the whole of the children. We have operated on 376 boys and girls, every one of whom had previously been vaccinated in infancy, and without an exception all had well marked cicatrices. Out of these cases of re-vaccination, 321 were more or less successful; 246 having well developed large vesicles on the eighth day; and 75 were smaller and more shrivelled. Only 55 out of the whole school were considered as not have taken at all. The children varied in age from 8 to 15; and I think we may fairly conclude that in them the primary vaccine virus had been exhausted, and that, if the one case of small-pox had not been most carefully isolated, and the remaining children re-vaccinated, we might have had a terrible outbreak of small-pox in the school.

I may mention, as a practical hint, that as we were short in our supply of vaccine lymph, having only a few large tubes, we freely diluted their contents with glycerine, evidently without impairing the efficacy of the lymph.

I am, etc.,

FRED. H. GERVIS.

1, Fellowes Road, Haverstock Hill. December 1870.

DEGREE OF M.D. ST. ANDREW'S.

SIR,—Might I ask the Secretary of the St. Andrew's Medical Graduates' Association, through the medium of the *JOURNAL*, whether the new regulations at St. Andrew's are likely to come into operation during 1871; and if the fee for graduation is to be the same as at present—viz., Fifty Guineas? I presume the new regulations will be published shortly.

I am, etc.,

L.R.C.P. EDIN. (exam.)

December 23rd, 1870.

MR. KERSHAW.—Dr. Crace Calvert may be addressed at the Royal Institution, Manchester. We do not think that the use of charcoal lining to ice-provision safes is a novelty, although the arrangement described is one which may prove to be new and useful.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, Dec. 31st; The New York Medical Record, Jan. 5th; The Boston Medical and Surgical Journal, Jan. 5th; The Madras Mail, Nov. 7th; The Shield, Jan. 14th; The Southport Independent, Jan. 11th; The Southport Visiter, Jan. 13th; The Sheffield Daily Telegraph, Jan. 11th; The Manchester Daily Examiner and Times, Jan. 12th; The Malvern News, Jan. 7th; The Southport Advertiser, Jan. 14th; The Braintree and Bocking Advertiser, Jan. 11th; The Scotsman, Jan. 16th; The Redditch Indicator, Jan. 7th; The Bromsgrove Messenger, Jan. 7th; The Worcestershire Advertiser, Jan. 7th; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Sir W. Fergusson, London; Mr. Joseph Lister, Edinburgh; Mr. J. M. Wilson, Chatteris; Dr. Gardner, Box, Wilts; The Editor of the "Malvern News"; The Secretary of the Clinical Society; Dr. Meadows, London; Mr. B. Kershaw, London; Mr. Frederick Churchill, London; Dr. Cholmeley, London; Mr. Firth, Macclesfield; Mr. Brudenell Carter, London; Dr. Peacock, London; Mr. Benson Baker, London; Miss Anderson, Edinburgh; Mr. W. D. Husband, York; The Secretary of the Royal Medical and Chirurgical Society; Dr. Roberts, London; Mr. Gascoyen, London; Mr. Kesteven, London; Mr. J. Waring-Curran, Mansfield; Dr. Hardie, Manchester; Dr. Miller, Glasgow; Dr. Nicholls, Chelmsford; Dr. Cheadle, London; Dr. A. T. H. Waters, Liverpool; Dr. Douglas Powell, London; Messrs. Orlando Jones and Co., London; Dr. R. Barnes, London; Dr. Henry Barnes, Carlisle; Dr. Bradbury, Cambridge; Dr. J. W. Moore, Dublin; Mr. J. P. Daniel, Beaminstor; Dr. Joseph Rogers, London; Dr. Crossby, Leeds; Mr. Reginald Harrison, Liverpool; Dr. Nunneley, London; Mr. P. Lloyd Lavies, Abergele; A. C. K., London; Dr. Hall Davis, London; Dr. Sutton, London; Mr. H. A. Reeves, London; Dr. Shettle, Reading; Rev. Dr. Haughton, Dublin; Dr. D. Page, Kirkby Lonsdale; etc.

LETTERS, ETC. (with enclosures), from:—

Dr. C. Handfield Jones, London; Mr. Campbell De Morgan, London; Dr. G. H. Philipson, Newcastle-upon-Tyne; Mr. Wm. Mac Cormac, London; Mr. James Startin, London; Mr. A. Haviland, London; Mr. Jonathan Hutchinson, London; Dr. Calvert, Manchester; Dr. Theodore Williams, London; Dr. C. T. Moore, Dublin; Dr. T. T. Maunsell, Dublin; Dr. Pierce Egan, Dublin; Our Manchester Correspondent; Dr. Sieveking, London; Mr. Prescott Hewett, London; Our Glasgow Correspondent; Dr. E. Symes Thompson, London; Our Liverpool Correspondent; Dr. A. W. Edis, London; Dr. E. Waters, Chester; Our Edinburgh Correspondent; The Honorary Secretary of the Ethnological Society; M.R.C.S.; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Dr. W. Ogle, Derby; Dr. Mapother, Dublin; Dr. Charlton, Newcastle-on-Tyne; Dr. Thomas Jones, London; Mr. L. P. Merriam, London; The Secretary of the Obstetrical Society; etc.

BOOKS, ETC., RECEIVED.

Monthly Report on the Health of the Parish of St. Marylebone, during November 1870. By J. Whitmore, M.D.
Second and Fifth Annual Reports on the Sanitary Condition of Merthyr Tydfil for the years 1866 and 1869. By T. J. Dyke, F.R.C.S.
Report of Committee, etc., of the Association of Certifying Medical Officers.
Fourth Report of the Health and Meteorology of Newcastle and Gateshead for 1870. By G. H. Philipson, M.D.
Report to the Merthyr Tydfil Local Board of Health upon the Sanitary Acts, as far as they affect Fever arrangements.

BULLOCK AND REYNOLDS' ECLECTIC INHALER,

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CLINICAL LECTURE

ON

OBSTINATE CONSTIPATION AND OBSTRUCTION
OF THE BOWELS.

BY PATRICK BLACK, M.D., F.R.C.P.,

Physician to St. Bartholomew's Hospital.

"OBSTINATE constipation" and "obstruction of the bowels" are events which may take place from a great variety of causes. Some of these I shall endeavour to place before you. One of by no means uncommon occurrence consists in an "accumulation of impacted fæces" in the large bowel. This is a form of the complaint which is attended by very little or no danger, and is soon relieved by proper measures. Yet even this may occasion great temporary distress to the patient, and much anxiety to the friends. I will mention a case which occurred in my own practice a good many years ago.

I had been in long attendance on a lady, about thirty, for no definite organic disease. She at last got tired of me, and, at the instance of her nurse, a homœopathic physician, since dead, was called in. After he had been some time in attendance, I was recalled on an emergency of so-called "obstinate constipation" or "obstructed bowels." It seems that her homœopathic doctor had referred her complaint to an attack of piles; but as he failed to relieve it, the friends became excessively anxious, and a little ashamed, and I was again summoned. I found the lady in a state of considerable suffering, with, however, little or no febrile disturbance, but she had some nausea, and refused all food. She had a desire to go to stool, but the slightest straining effort caused such pain that it was impossible to persevere. Her bowels had been locked up for about ten days. My examination satisfied me that all her distress was caused by hard impacted fæces which had been allowed to accumulate in the lower bowel, and that the easiest way of relieving her would be by repeated injections of warm water. Some objection was made to this simple and easy treatment, and the late Mr. Aston Key was called in consultation with me. He took the same view of the case, and said that, if this were not done, he should be obliged to scoop out the contents of the bowel with the handle of a spoon. The first alternative was then adopted, and complete relief was obtained, after which I was allowed to withdraw, to be again replaced by the homœopathic doctor. This case should perhaps be rather called a case of "constipation" than of "obstruction." Nevertheless, the bowels were locked up for a considerable time, and symptoms were coming on not unlike those which betoken a more serious affection.

I will mention another case in which the obstruction seemed to be seated higher up, though this case, also, may be regarded as simply one of "obstinate constipation." Some years ago I was asked to visit a lady resident at Islington. I knew her previously, and, judging from her appearance, had always thought her a very healthy person. I was now told, however, that she was subject to the constant inconvenience, or more than inconvenience, of obstinately constipated bowels, and that she frequently used very large injections of very hot water. The account given me of her attack was this. She had just returned from Warwickshire, whither she had gone to be present at a wedding, and had been absent three days. She had not felt well on leaving home, and would rather not have gone, but was unwilling to disappoint her friends. During the whole time of her absence she felt very unwell, and was seized with sickness on the railway in returning, which sickness had occasionally returned. I saw her in bed with a tranquil countenance; no pain in the abdomen, which bore pressure everywhere. The tongue was slightly furred; the pulse not affected. She had a cool skin, and had slept tranquilly during a considerable portion of the night. I took a very favourable view of the case; but, knowing that an invincible obstruction will sometimes come on with these mild symptoms, I was determined to use no measures which would have the effect of aggravating the sufferings should this unfortunately be the case. Accordingly, the plan of treatment which I adopted was to keep washing out the lower bowels by means of injections, until these came away unchanged, which would be a proof that they had done everything they were capable of effecting. A very large quantity of fæcal matter was brought away in this manner, and the patient seemed in a more comfortable state. At last, the injection was returned without bringing any fæcal matter along with it. She was now seen by Dr. Burrows in conjunction with myself, and, as some sickness continued, he advised the continuance of the injections, and a draught containing the effervescing citrate of magnesia at inter-

vals of a few hours. As the result of the injections was always examined, it was noticed that in one there were floating some currants; and upon this being mentioned to the patient herself, she said: "Now I am satisfied there is a free passage through the bowels, for the currants came from the wedding-cake, as I have eaten nothing else containing them." This account seemed so probable, and was so consistent with the mild features of the case, that I thought I need no longer hesitate to give a brisk purgative, which might probably clear off all her symptoms. I then ordered half a drachm of jalap with three drachms of bitartrate of potash, to be mixed with an ounce of syrup of ginger, half of which was to be taken immediately, and the remaining half six hours afterwards, unless the action of the bowels should be very free in the interval. The medicine had all the effect that could be desired, and the patient was soon perfectly well.

I will now mention one or two cases of a more serious nature, but which yet had a favourable termination, although both of them were attended by symptoms of the very worst omen. The cases which I shall mention have all been under my own care or observation.

In the spring of 1860, a young man was admitted into Mark's Ward with "obstinate constipation" of upwards of a week's duration. He had had a great deal of treatment, but without any effect, except that of greatly augmenting his distress. When I first saw him, his countenance was pinched and anxious, his abdomen greatly distended by flatus, and he was further harassed by constant vomiting. The matter vomited at length acquired the fæcal odour, and, as every symptom became worse at the same time, I abandoned all hope of his recovery. On my next visit to the hospital, I expected to find that he had died; and as I felt some curiosity about the nature of his disease, and my thoughts were running forward to the result of a *post mortem* examination, you may judge of my surprise when I saw my patient sitting up in bed, and taking some bread and milk with his own hand. He then told me that his bowels had been relieved, and that he had passed a great tapeworm. The chamber-pot was brought to me, which was literally half filled with the parasite, presenting a tangled mass, and in amount such as I had never seen before. His symptoms were entirely relieved, and he was only feeling the effect of exhaustion. From the account which I received from the Sister of the Ward, it was evident to me that some relief had been felt for some time before the final discharge of the worm had taken place, from which I inferred that the ease which had been felt by the patient was simultaneous with the passage of the knot of worm from some portion of the small intestine which it had almost fatally obstructed.

Some years ago, I had another case at the Seamen's Hospital, in which all the symptoms of tympanites, vomiting of almost fæcal matter, collapse of features, and even hiccough were present, and yet the action of the bowels was at length restored, and the patient recovered. It is difficult to explain such cases; indeed, our explanation must be quite hypothetical, for in half a dozen cases the symptoms might be identical in all, and yet the causes of them entirely different, except in the common property of their causing an obstruction.

I have now before me the notes of a patient, William Wills, aged 46, admitted into Luke's Ward, October 1860. It is stated that he had great pain across the body, not increased by pressure, with sickness almost incessant. The tongue was furred, and he had great thirst. A note states that, three days after his admission, an injection of three pints came away without any discoloration, and that he continued to vomit large quantities of fluid, of fæcal character. There was no treatment but the injections, which had no effect beyond that of washing out the large bowels. Five days after his admission, a note informs me: "The bowels were opened last night, and again this morning; the evacuations were copious, fluid, and containing lumps; the sickness has abated, and he has now very little pain across the belly." After this, his convalescence was soon established.

I will mention one case more, that of a lady who was well advanced in middle life, of feeble constitution, having spinal curvature, and suffering at the time from chronic disease of lungs, probably of tuberculous nature. In addition to her other ailments, the bowels were extremely sluggish, and I usually helped their inaction by a draught containing tartrate of soda, which seemed to agree very well. One day I was sent for unexpectedly; and, on arriving, I found my patient very uneasy in the abdomen, and was told that whilst straining at stool she had suffered some severe "internal cramp." She seemed apprehensive of pain on my handling the abdomen, but I found that I could make very firm pressure with the hand flatly applied without augmenting her distress. There was also some nausea, but without vomiting. I refrained from giving medicines by the mouth, and trusted to the action of enemata. The large bowels were frequently washed out, but no relief was afforded. The nausea was succeeded by vomiting, and the matter rejected had at last the fæcal character, and she gradually sank.

No examination was allowed, though much pressed by the late Sir James Clark, who attended in consultation with me.

These cases may serve as examples, partly of "obstinate constipation", partly of "obstruction." You will have seen from them that even "feculent vomiting" is not always a fatal symptom; it is, however, one of extremely bad augury. When once it shows itself, nothing can be attempted in the way of giving medicines by the mouth, for the nausea is constant, and the stomach is excited to vomiting as often as it is refilled from the bowels. In many cases, the obstruction is irremediable from the first, and when this is the case, all purgative treatment must greatly aggravate the distress.

Some years ago, the late Mr. Lloyd performed the operation of section of the abdomen, with the hope of discovering some removable cause of obstruction, and thus giving relief to one, on whom all other measures had been vainly tried for about three weeks. Although the operation was performed with great care and skill, and seemed to be quite proper as a last resource, I should hardly feel justified in recommending it in another case. It was shown in this case that the disease was of a necessarily fatal character.

I have little to say on the subject of treatment. The remarks which I have made consist almost of objections to the use of *active* purgatives. The first thing to be done is to satisfy ourselves that there is no hernial protrusion—that there is nothing which in the first instance demands surgical relief. Having ascertained this, we should then administer injections, and repeat them as long as they bring away any fecal matter. It has been supposed that gentle pressure or a "kneading", as it were, of the bowels, has been productive of good effects. It is difficult to understand on physical principles how this can be the case; nevertheless we are told that on one occasion a somewhat heavy hand brought relief which had been denied to the exertions of a gentler manipulator.

Many absurd remedies have been recommended, in ignorance, one might suppose, of our anatomical formation. Among these, metallic mercury is one, the weight of which, it was thought, would carry everything before it. Neither should I have so much confidence in galvanic shocks passed through the abdomen, as I once heard expressed by a gentleman who was accompanying the late Dr. Hue, in one of his visits at the Hospital. They were considering a case of *obstinate constipation*, when Dr. Hue's friend suggested galvanism. Dr. Hue smiled, as if he doubted whether his friend was serious or not, and then asked if he had ever found that to be efficacious. "Efficacious!" said the other, "I tried it once, and could hardly get out of the way in time." "Then", said Dr. Hue, "let it be done."

OBSTETRIC MEMORANDA.

SPONTANEOUS INVERSION OF UTERUS.

IN the JOURNAL of December 24th, 1870, is an interesting account of a case of "spontaneous inversion of the uterus" reported by Mr. Webster Adams of Norwich. The following is the only case of the kind which has come under my notice during a midwifery experience of many years. Mrs. P., a young married woman, had been attended by a neighbouring practitioner in her first confinement on October 30th, 1868. The labour was natural, except that it was followed by rather profuse atonic hæmorrhage. The following day—twenty-four hours after delivery—her medical attendant was sent for hurriedly; and, when he arrived, found that, after a sudden accession of powerful expulsive pains, complete inversion and extrusion of the uterus had taken place. There was no hæmorrhage, but the patient was anæmic from the previous loss, and seemed very prostrate, with rapid, feeble pulse. He immediately returned the uterus within the vagina; but, experiencing some difficulty in effecting its further reduction, procured my assistance. We put the patient under chloroform, and, without much difficulty, I succeeded in restoring the uterus to its natural position, after it had been inverted for five hours. The procedure which I adopted consisted in grasping the inverted uterus with the right hand, introduced within the vagina, exerting at the same time powerful upward pressure until the vagina was fully on the stretch, when I became sensible of the gradual recession of the tumour. Following this up carefully with my fingers, I soon found my hand occupying the cavity of the uterus, showing that its natural condition was restored. The reduction took place without any perceptible jerk. I retained my hand in the uterus for a time, and grasped it externally with my left hand until firm contraction was excited, when I cautiously withdrew the hand from the uterus, and no recurrence of the displacement took place. The patient made a good recovery without the supervention of any inflammatory symptoms.

Sandon, Stone, Jan. 1871.

J. H. TYLECOTE, M.D.

AN ADDRESS

ON

THE IMPROVEMENT OF MEDICAL EDUCATION.

*Delivered before the Medical Teachers' Association,
January 20th, 1871.*

BY CAMPBELL DE MORGAN, F.R.S.,
Surgeon and Lecturer on Surgery at the Middlesex Hospital, etc.

GENTLEMEN,—On taking the chair for the first time, the thought which is uppermost in my mind, as it assuredly is in yours, is the sad event which has deprived us of one of the most useful and zealous of our members—of a president whose high character and attainments rendered him in every way a fitting successor to Simon and to Jenner. In acknowledging the honour you have done me in electing me your president, I must at the same time confess that I accepted reluctantly a position hitherto filled by men so eminently qualified to establish and to advance the character and influence of the Association. I did not feel justified, however, in refusing, under the circumstances, an invitation so flatteringly made. But, while confessing to a want of those qualities which have distinguished your former presidents, I yield to no one in the earnest desire to promote our common object. Nor do I think that any one among us is more deeply impressed with the conviction of the usefulness of such an institution as this, if it confine itself strictly to its true and legitimate objects—the improvement of education, the efficiency of the schools, and the cultivation of a cordial co-operation and good feeling between them.

The two questions which it was intended should be brought forward this evening come within the scope of this definition. The one—that of the propriety of doing away, under certain conditions, with certificates of attendance on lectures—leads directly to the important subject, which has frequently cropped up in the course of our discussions, of the enforcement on the student of a fixed, special mode of acquiring knowledge. This question, as you may remember, was referred back to the Council, and, on reconsideration, it was found that fresh information would be necessary before it could be again presented to a general meeting; and this information a committee is engaged in collecting. The other question—that relating to the amalgamation of schools—has a bearing yet more weighty on education, and especially, perhaps, on the most important branch of it—*practical teaching*. But this, too, is postponed; and we can only now sympathise deeply with the gentleman who was to introduce it on the occasion of the severe domestic calamity which has befallen him, and which obliges him for the time to withdraw his motion.

Thus we might have been left to-night without occupation. But there was a subject which would of necessity have taken precedence of either of those which are for the time withdrawn. One of the objects of our meeting is to hear and to discuss one another's views as to the best and most practicable mode of carrying out the regulations imposed on us by the examining boards. The effect of this is to harmonise without trammelling the actions of the schools.

The College of Surgeons has issued regulations, some of them novel in character, which must come into immediate or early operation, and which compel an enlarged area of action in the schools. The regulations are somewhat vague, perhaps intentionally so, and they must therefore be interpreted by the teachers. I think we may congratulate ourselves on the action of the College of Surgeons, for to a great extent most of the schools were in advance of the then regulations, and had voluntarily adopted modes of teaching which the new regulations only now render compulsory. We may congratulate ourselves, because these regulations enforce that for which we have been striving—a higher recognition of practical education. The new rules will not find us unprepared, for the most part, to adopt them. But there are questions requiring consideration, and which can be best considered at a combined meeting of the schools. Such are—What is meant by practical physiology? to what extent should it embrace experimentation on animals? In what manner may students take part in physiological experiment? Or does practical physiology really mean only the practical study of subjects auxiliary to physiology, as histology, chemistry, and physics? The latter seems to be now the interpretation of the Council of the College, but doubtless many schools are prepared to take the wider view.

In connexion with this subject, I must claim your indulgence if I express opinions which I know are not shared by many of you, but which I have long entertained, and which time only strengthens. In the days which at a former meeting were alluded to as having produced lecturers on anatomy and physiology, whose class-rooms were thronged by willing students, those subjects were united in one course not longer than the anatomy course in the present day. Then came in the teaching of French anatomy, as it was called—an attention to minute details, a lengthened description of each unimportant part with a minuteness which would be tedious in connexion with even the most important. Physiology—a science whose boundaries were rapidly enlarging—was necessarily dissociated from Descriptive Anatomy, which was thus deprived of what gave it its principal charm. The dissociation was unavoidable; but has the result been unmixed good? Now I speak from my own experience (having lectured on both subjects), that one is apt to forget the object of our teaching, and the receptive powers of mind of the majority of our hearers. We address ourselves to the intelligent few, and as if these subjects were the end of their pursuit, and not mere steps towards it. Remembering that it is the general mass of future practitioners that we have to prepare, is it desirable to track physiology through all the widely extending channels which are now being explored? Should we not rather labour to fix in the minds of students the established facts of the science, and to rest content if we *can* fix them deeply and permanently?

Of course we may be told that all scientific practice must be derived from, and have its foundations in, physiology. But this, while received as an abstract proposition, *must* be acted on with considerable reserve. All *good* practice will be consistent with physiological truth. But are we yet possessed of physiological truth? For the most part, we know as yet but little of the force, the mechanism, or the mode of action at work in our organism. The truth of to-day is the error of to-morrow. Doubtless, when a law is once established, we may base our practice upon it securely and unalterably. But how many *laws* are established? I think that, whatever our feeling may be, we do admit to ourselves that a rational empiricism is better than a rigid adherence to a practice founded on a half truth. If physiology were taught in our schools for the purpose of training physiologists simply, and not practitioners of medicine, then the case would be different. Do we not, in teaching *up* to the few exceptionally intelligent minds—which would work out the subject for themselves—shoot beyond and above the ordinary majority?

I fear I shall be looked on as heretical, and quite below the spirit of the age, if I put in a claim in abatement of over-minute anatomical teaching. I would say again, that if anatomy—of the bones, for example—is to be taught with the object of training comparative anatomists, minuteness cannot be carried too far. But the end should direct the means. Let the student dissect with the greatest possible care and minuteness; it trains his hand and eye; but I doubt whether in the lecture-room anatomy could not be better taught (for the preparation of medical men) if important practical points were dwelt on—over and over again, if you please—to the neglect of useless minutiae, which serve as mere exercises of memory to the student, and which are forgotten in a short time, even by the teacher, and are never brought to bear on actual practice.

You will not, I am sure, think me so wanting in common sense as to ignore the all-importance of anatomy and physiology. My plea is for the better teaching and the more permanent retention of the true and necessary to the repression of the, as yet, hypothetical and useless. Let us demand of those who seek the higher academical honours of the profession such an amount of scientific knowledge as will justify their receiving a stamp of excellence. They can always find, by independent study, the means of satisfying our demands. But for those whose aim is more limited, let us be satisfied if we can instil into them a thorough knowledge of what is useful and practical. Under any circumstances, I am glad to think that the practical element in physiology is to be more cultivated.

In the case of practical surgery, attention to which is now specially enforced under the new rules, we must all admit that the change is most excellent. But the question has been raised, whether it is necessary that the practical surgery course should extend over six months—whether all that is embraced under this head might not be better studied in a three months' summer course. As operations on the dead body must form one element of the course, the difficulty of procuring a sufficient number of subjects will create perhaps a formidable impediment to its being carried on in the winter.

There is another point which must be considered, and on which it would be well could the schools come to a general agreement. It is true that many of the subjects which the new regulations render compulsory have been taught in most of the schools in supplementary classes.

For the most part, these have been added on without the requirement of extra fees from the students who benefit by them. The *necessary* expenses under the new rules must be increased. Should there not be a corresponding increase in the fees? You may say that this, at least, is no question of improvement of education; but I have no doubt that, if the emoluments of teachers be reduced to a minimum, and their work be increased to a maximum, teaching will be carried on in an unsatisfactory manner.

Such, amongst others, are the questions which will more than occupy our time to-night.

Whatever may be our view as to the application of the new regulations, we cannot but be glad that they all tend to enforce practical teaching, and are so far in advance of the prevalent competitive examination system, which is, I believe, producing great injury to the minds of the rising generation. There is no doubt that the primary object of the teacher is to instil into the minds of the students as much knowledge as he can, and the new rules put fresh means and appliances into his hands. But it has always appeared to me that there is one, and that perhaps the main, branch of education which is in danger of being sacrificed in this attempt to *instruct*, and that is, teaching a student the uses and powers of his own mind. At the ordinary school he should be taught how to learn; at the special college he should be taught how to think and to reason. Our endeavour should be to induce him to try as far as possible to work out questions for himself, rather than to explain everything to him. One problem worked out by independent thought would be more useful to him than twenty of which he had learned the demonstration by book. By such a process his mind will be rendered both more able and more willing to receive new truths and new ideas. Of course any information given to an intelligent being will fructify; but while a truth imparted will yield a twofold harvest, a truth educed will yield a hundredfold. The opportunity for this mental training is now placed more within the reach of the teacher, and it will be for us to utilise it. The task may be somewhat irksome, but it will always be beneficial. If well carried out in the practical courses, the clinical teaching will be far more interesting to the teacher, and far more useful to the student; and it is, after all, towards clinical teaching that our main endeavours must tend in the education of future practitioners.

I have said that we may congratulate ourselves on the establishment of the new regulations of the College of Surgeons; and I cannot help thinking that, whether admitted or not, the strong and unanimous opinion of so large a body of teachers as is enrolled in this Association has had some share in leading the College to frame them. It must have had the effect at least of satisfying the Council of the College that the rules would be cordially received and conscientiously acted upon by the teachers. And if this be so, have we not an answer to those who ask of what use is the Association? There is a doubt, perhaps, on the minds of some few who are of us, and work with us. For it is said that we do not represent the London schools. It is true, and it is a subject of regret; regret for our own sakes, as we are deprived of the advantage of gathering the opinions of men of experience,—regret for their sakes who are not of us, inasmuch as they lose an opportunity of advancing an object of common interest to them and to us, of learning the opinions of men of equal experience with themselves on subjects which must engage their minds as deeply as they do our own. Though we may regret that any should hold aloof from us, yet I do not see that our position is materially weakened thereby, or our usefulness diminished. We are not, and we do not aspire to be, a legislative body. We do not seek to enforce laws even on schools affiliated to us. Our function is consultative, and our end is gained if we can obtain a concurrence of opinion on unsettled points on the part of so large a majority of the schools and teachers as belongs to our Association.

And our Association has produced another beneficial effect. Those who, like myself, have had experience in former years of the difficulty of obtaining anything like cohesion for any purpose amongst the London schools must be struck with the inclination displayed amongst us to merge individual interests in common benefit. Our rivalries may remain; but the frankness with which the various systems and opinions are explained and discussed shows that it is no mean or jealous rivalry which actuates us. For one, I may express my hope that the Association will continue, and will be a permanent benefit to what we may call the great metropolitan school.

I have intentionally condensed the thoughts which have passed through my mind within the narrowest possible limits. Our time for discussion is short. Inexorable custom has obliged me to occupy some part of it in expressing my own views; but in allowing as much as possible for the full consideration of the subjects which will be brought before you, you will agree with me in thinking that I have best discharged my duties as your president.

ON INTEMPERANCE IN ITS MEDICAL AND SOCIAL ASPECTS.*

By J. W. EASTWOOD, M.D. Edin., Dinsdale Park, Darlington.

AMONGST the subjects of domestic and national interest, stands foremost that of intemperance. No political question is so important, and, for the welfare of great masses of the community, no medical question is so important. Of the injurious effects of alcoholics upon the body, it is only necessary to mention diseases of the liver, kidney, and brain. The most serious results are produced upon the brain and mental faculties. As a poison, alcohol produces death rapidly, by causing congestion of the brain, coma, apoplexy, and paralysis of the heart. In one case which came under my notice, death by coma speedily resulted from an excess of whiskey; and in another case, death took place more slowly by exhaustion from diarrhoea, brought on by drinking large quantities of beer. It is not, however, the object of this paper to consider these cases, but to deal with the subject of drunkenness in its relation to insanity, crime, and pauperism.

Insanity.—We have various forms produced as the mental and physical effects of intemperance, which is a very common cause of insanity.

1. Acute mania, of a noisy and destructive kind.
2. Delirium tremens; the two together with drunkenness itself forming what has been called "acute alcoholism".
3. Dipsomania, a term properly restricted to mean an irresistible impulse to drink alcoholics.
4. Dementia, with gradual loss of memory and energy, and diminution of muscular force.
5. Chronic alcoholism, in which degeneracy of the individual is the characteristic result of intemperance.
6. General paralysis of the insane.
7. Other forms of insanity, acute or chronic.

Some of these terms are ill-defined, and have been often misunderstood. In its restricted meaning, it would be better to do away with the term "chronic alcoholism". Magnus Huss first used the word alcoholism in 1852 at Stockholm, to express the total effects produced upon the nervous system by alcoholic intoxication, and described an acute and a chronic alcoholism. For some years past the terms have acquired still more extensive meanings, and ought now to include all the accidents produced by the introduction of alcohol into the animal economy.

All these forms of bodily disturbance, attended with mental symptoms, come specially under the notice of the psychological physician. The State takes cognisance of them as well as of other cases of insanity, when a proper order and medical certificates are given for the patient to be detained under care and treatment in a public asylum, a registered hospital for the insane, or a private licensed house.

There is no difficulty in most of these forms of disease in obtaining proper certificates, where it is manifest that mental unsoundness exists, with or without the existence of delusions. But great difficulty does exist with that form known as dipsomania, for, whilst there can be no doubt that in many cases the symptoms are plain, yet in others it is not easy to describe them so as to bring the patient under the definition of being of unsound mind. And there is in this country no middle course to be pursued, since, as far as treatment is concerned, the patient must be either entirely free or under legal detention. A member of our profession is now endeavouring to remedy this condition of things, that the State may step in and take care or provide for the individual who is unable to take care of himself. Mr. Donald Dalrymple, M.P. for Norwich, gave notice last year that he should move a resolution to the effect that it is desirable to legislate for the proper reception, detention, and management, of habitual drunkards. He moved the resolution, and the Government suggested that Mr. Dalrymple should himself bring in a Bill for the purpose. He recently introduced a bill into Parliament, which is entitled "A Bill to amend the law of Lunacy, and to provide for the management of Habitual drunkards". It is prepared and brought in by Mr. Dalrymple, Mr. Gordon, and Mr. Pease, but in consequence of other more pressing measures it has been withdrawn until next session. The first clause defines an habitual drunkard as "any person who by reason of frequent, excessive, or constant use of intoxicating drinks, is incapable of self-control, and of proper attention to and care of his affairs and family, or who is dangerous to himself or others". Such a per-

son may, if he likes it, upon his own written request, without certificate or other evidence than his own statement that he is an habitual drunkard, and that he wishes to be taken care of, be admitted into a reformatory, sanatorium, refuge, or other suitable place established for the purpose. He may also be admitted against his will upon the request of a near relative, friend, or guardian, who must get two medical certificates as to his intemperate habits and dangerous propensities. He is not to be admitted for less than three or more than twelve months; and he is only to be discharged during that period by an order of the Lord Chancellor, or by a commissioner in lunacy, or by a justice of the peace, on satisfactory proof being given that he is cured, and may with safety be released; but no such discharge shall be made without consultation with one or more duly qualified medical practitioners, and certificates from them that he has recovered. Magistrates may commit any person thrice convicted in six months of drunkenness, or a breach of the peace while drunk, to one of these reformatories for not less than three or more than twelve months; but the period of committal may be extended for six months more upon a medical certificate that such extension is required for the restoration of the mind and health of the detained party. The Act is to be called "The Habitual Drunkards Act".

This is the first step towards providing retreats for dipsomaniacs, and the Bill is a compound of the voluntary system with legal control. It includes ordinary drunkards in its provisions, as well as those other cases where the unnatural craving for drink is of the nature of an insane passion. But it does not go too far, and it is the first public recognition of the connection between intemperance, insanity, and crime, in unfitting persons for taking care of themselves. Where drunkenness is voluntary, it is a crime; and where it is involuntary, or beyond a person's power of self-control, it is insanity. This is not the only connection to be observed, for drunken parents have frequently drunken, or criminal, or insane, or idiotic children, and thus the evil goes on from generation to generation until the family dies out. Separation from home and friends, and a miserable death, is often the end of dipsomaniacs, who are allowed to go to ruin of mind and body without any interference from others or the State. Such liberty of the subject may be very precious to some persons, but it will be very properly restrained by the Bill mentioned. It will do good by its effect upon public opinion even more than by the direct benefit to the individuals specially concerned.

Crime and Drunkenness.—The amount of serious cases of crime has not increased for some years past, though drunkenness is decidedly on the increase. Judges and magistrates have frequently testified how commonly crime is associated with drunkenness. Our large towns are the most conspicuous for the drinking habits of the people. A few statistics may be selected from Graham's *Temperance Almanack* for 1869 and 1870, showing the number of apprehensions for drunk and disorderly conduct in the years ending September 29th, 1867 and 1868.

Town.	Pop. in 1861.	APPREHENSIONS IN		Proportion.
		1867.	1868.	
London	3,109,172	16,608	18,872	1 in 164
Liverpool	443,938	11,938	14,451	1 in 30
Manchester.....	338,722	9,742	9,540	1 in 35
Birmingham ...	296,076	1,330	2,310	1 in 128
Leeds	207,165	1,340	1,364	1 in 151
Sheffield	185,172	841	1,022	1 in 181
Bradford.....	136,218	191	285	1 in 477
Newcastle	109,108	1,361	1,752	1 in 62
Sunderland.....	78,211	557	600	1 in 130
Norwich.....	74,891	93	103	1 in 727
Bolton.....	70,395	729	1,217	1 in 58
York	40,433	208	289	1 in 140
Rochdale	38,114	629	743	1 in 52
Tynemouth	34,021	379	406	1 in 83
Exeter.....	33,738	42	43	1 in 803
Oxford	27,560	13	11	1 in 2469
Warrington.....	26,431	727	836	1 in 31
Peterborough...	22,893	22	25	1 in 916
Huddersfield...	22,163	322	817	1 in 69
Lincoln	20,999	61	67	1 in 313

Whatever may be the exact cause of the striking differences in these numbers, Sir Wilfred Lawson has admitted in Parliament that there is an increase of drunkenness, and the statistics now given show a decided increase in one year. The large manufacturing towns compare very unfavourably with the cities, even when the population is nearly the same. Liverpool, Manchester, Newcastle, Warrington, Rochdale, and Bolton, are conspicuous for their drunkenness, whilst Bradford, Norwich, Exeter, and Oxford, are remarkably temperate.

* Read before the Public Medicine Section at the Annual Meeting of the British Medical Association, in Newcastle-upon-Tyne, August 1870.

Pauperism.—In England and Wales, pauperism is increasing, as shown by these statistics, even allowing for the increase of population.

In 1860, there were 844,633 paupers, costing £5,454,964.

In 1867, „ 931,546 „

In 1868, „ 992,640 „ „ £7,498,059.

The bulk of this mass of poverty is admitted to be caused by intemperance.

Consumption of Intoxicating Drinks.—The following figures will show the quantity of spirits, beer, and wine, in gallons, consumed in the British islands at intervals of fourteen years.

Years.	1840.	1854.	1868.
Ardent spirits	29,216,260	30,163,933	29,407,499
Foreign wines	7,000,486	6,813,830	15,064,628
Ale and beer	570,799,196	618,625,188	896,533,416
	607,015,942	655,602,951	941,005,543

The population has increased only two millions during these twenty-eight years. The amount of British wines, cider, and perry, has remained nearly stationary, and they are not included. The consumption of spirits is slightly decreasing; foreign wines are increasing considerably, but ale and beer still more so, and form the staple drinks of the inhabitants of this country. Ale and ale-houses were mentioned in the laws of Ina, King of Wessex, in 728; and drunkenness was forbidden by the common law. Our Saxon ancestors were a drunken people, as well as the Danes. Wherever we find men of the great Germano-Scandinavian race, whether they be English, Scotch, Flemings, Dutch, Danes, or Swedes, we find them fond of beer, and noisy in their drinking. A more general description of this race than that of fair-haired and light-eyed, is that they are a *beer-loving race*. The more southern nations of Europe are chiefly wine-drinkers, quieter in their drinking, and more temperate than the northern nations. The practice of drinking light wines conduces to temperance; and this result is not owing to public agitation, or to the temperance movement, but to increased knowledge of different kinds of wines, and a change in British taste. It is at length discovered that the highly brandied wines are more adulterated, and are more pernicious than the lighter wines which are now more extensively used.

The Medical Profession.—It is very striking how generally the profession has kept aloof from any of the movements which have for their object the promotion of temperance; and this state of things must be ascribed chiefly to indifference. It is also partly owing to the fact that many extreme opinions have been put forward by the advocates of the temperance movement, and more zeal than wisdom has been exhibited in the controversy on the subject. The medical men who are stated in the *Temperance Almanack* of 1870 to be total abstainers number only 166, and of those many are professed homœopaths and hydropaths. The clergy and ministers of different denominations, on the other hand, have taken up the matter more warmly—no doubt on moral and religious grounds. These are the numbers of total abstainers given.

Episcopalians of England and Ireland.....	659
Presbyterians of British islands.....	686
Methodists „ „	778
Congregationalists „ „	1103
	3226

Why is this difference between the two professions? Medical men have not seriously and scientifically examined the question; and they have been prejudiced against it by the many absurd opinions held by those who advocate total abstinence. When we find men as lecturers going about from town to town, and telling us that those who drink moderately are as bad as those who drink to excess, that it is a sin to drink alcoholics at all, and that the use of wine at the Sacrament is sinful—proving their opinions from the Bible—intelligent and reasoning men may well hold aloof from such advocates, who do the cause of temperance great harm. At the same time, medical men have not given the same attention to this great question as they have given to other subjects connected with the health of the people. They have been earnest in their care for the public health in respect to prostitution, to sanitary arrangements, and to the entire suppression of small pox, yet they have been comparatively indifferent to the amount of disease and death, crime and misery, produced by intemperance. Some years ago, a medical declaration was extensively signed to the effect that a large amount of misery, poverty, crime and disease, was produced by alcoholic liquors; that persons would enjoy good health without them, and that total abstinence from them would greatly contribute to the well-being of mankind. In the abstract this seemed to be all true; but very few medical men who signed the document put the statements into

practice, and its influence upon the public has been very small. Of course, if total abstinence were universal, there would be no drunkenness; but this is a perfectly Utopian idea, and the advocates of the system have not thereby lessened the mass of disease, drunkenness, or pauperism. The drinking of alcoholics has always existed, and in every country; and we must change the nature of the man, his habits and tastes, before we can expect universal abstinence to be produced. This consideration does not exonerate us from doing our utmost to lessen the mighty evils that result from the drunkenness of this country. In an able leading article in the *BRITISH MEDICAL JOURNAL* for June 4th, 1870, the “impassive attitude” of the medical profession is fully acknowledged; and yet the writer appears to think that medical men have come to the conclusion that water-drinking is not the best for mankind in general, or our own portion of it, even in ordinary health. Certainly the great mass of our profession act up to this view; but it is not a conclusion come to with calm deliberation after seriously examining the facts. It has long been the habit of medical men to recommend alcoholics simply because their patients wish to know *what* they are to take, expecting, as a matter of course, that they must take something. Is it right thus to humour people, and thoughtlessly add to the mass of misery and disease produced by this cause? Patients frequently come under my care who have been advised by their medical attendants to take, perhaps, three or four glasses of wine daily, without any apparent object to be gained by such treatment.

Remedies.—It may be safely concluded that the total abstinence or temperance movement has failed materially to arrest the progress of drunkenness in these islands. It has no doubt done some good in diffusing information, but it has not created a sound public opinion. Its doctrines are too narrow, and they can never be carried out fully. The improvement which has taken place in the habits of the upper and middle classes during twenty years, is due more to education than to the principles of total abstinence societies. Mr. Dalrymple's efforts are only in one direction—the care of those who are temporarily dipsomaniacs and drunkards; but, if successful, they will result in a widespread belief that drunkenness is allied to crime on the one hand, and insanity on the other. When once the public mind is imbued with this idea, we may hope for a larger decrease of intemperance.

Another legislative effort has recently failed. “The Permissive Prohibitory Liquor Bill” was moved by Sir Wilfred Lawson, the zealous advocate of temperance, and seconded by Lord Claud Hamilton, in the House of Commons, July 13th, 1870. Sir Wilfred quoted from reports from chaplains and gaols in various parts of the kingdom, to show that education was not a specific calculated materially to check drunkenness and crime; and having referred to statistics to show that intemperance was on the increase in the large towns of this country, said he had little hope of permanently checking drunkenness, unless some decided step was taken by the legislature. He thought the licensing system ought to be altered; and though the Home Secretary could not agree with him as to the Bill, yet he thought something might be done to restrict and control the licenses given. In the speech which Mr. Bass made on the subject, he said that the capital involved in the manufacture and the sale of alcoholics amounted to £100,000,000, and the revenue to £23,000,000. The principle of giving two-thirds of the inhabitants of any district control over the licensing system was decidedly rejected. What, then, can be done by the medical profession?

1. Mr. Dalrymple's bill ought to be supported, so that dipsomaniacs and confirmed drunkards may be placed under care and treatment, with State supervision, as persons of unsound mind.

2. Legislation respecting the licensing system should be encouraged, especially as regards beer-houses.

3. The subject of intemperance should be fully examined in a scientific and humanitarian spirit, and the public should be taught, on medical authority, what is the true position of alcoholics in relation to health and disease.

To carry out these or any other more desirable plans, it would be most useful to appoint a Committee of Inquiry to examine the whole subject of intemperance, and to make a report to the British Medical Association, or in the pages of its *JOURNAL*, respecting the best measures to be adopted; and some decided total abstainers should be members of the Committee, in order that their own views and experience may have due weight.

With scarcely more than the notable exception already mentioned, the medical profession is doing little to stem the torrent of drunkenness, crime, pauperism, and insanity, which fills our prisons, poor-houses, and asylums, and we have now a great duty to perform, which is not merely to follow in the wake of others, but to be the leaders in a general movement for the regeneration of our country from its greatest curse.

ON VERTIGO AS A SYMPTOM.*

By C. M. DURRANT, M.D.,

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It will, I doubt not, be in the memory of many who now hear me, to recollect the time when vertigo as a symptom was regarded, almost without question, as arising from plethora, and, as such, calling for and undergoing the most active treatment, especially blood-letting and free purging, if not the production of a sore mouth from a course of mercury. I am disposed to think that it is still considered too exclusively by many as a symptom of vascular hyperæmia, sufficient regard not being paid to the causes upon which the phenomenon depends.

With this impression, I have thought that it might not be altogether waste of time briefly to look into the different conditions which may give rise to vertigo, more especially in reference to their practical bearing and importance.

When we reflect that the symptom that we are considering may arise equally from fatigue of vessels, or the reverse; from actual organic change in the cerebral structure, or from mere functional and temporary disturbance, the result of vaso-motor nerve influence; from diseased heart affecting the cerebral circulation, or from diseased vessels in the brain itself; or, lastly, from circulating poisons, whether syphilitic or the consequence of diseased kidneys—it clearly behoves us to be very guarded, not only in investigating its special origin in each case, but also to exercise great caution and reservation before giving a positive prognostic opinion.

It will be convenient to allude first to vertigo depending upon plethora of vessels within the cranium, although I by no means consider this to be the most common cause. In these cases, we shall be guided by the flushed face, the injected eye; heat, probably, of scalp; sometimes, but not invariably, noises in the ears, and other general symptoms, indicative of cerebral vascular fulness. In this form, the prognosis may be on the whole favourable, provided that the symptoms have appeared but recently, and that no positive evidence exists of any organic change. Cupping from the nape of the neck, with free purgation and saline diuretics, will best avail in the treatment of this variety of vertigo.

In the present day of fierce competition in all walks of life, in which so much is attempted in a short space of time, cerebral anæmia, giving rise to exhaustive vertigo, is of very common occurrence. It is the variety, I believe, most frequently met with, and it is by no means of trivial moment, as, if the condition of brain upon which it depends be not relieved by treatment, it very commonly leads to white or non-inflammatory softening of the organ. These possible dangers should not be hidden from the patient, as the possession of this knowledge (and I have verified it in more than one instance) may alone prevail with him to take necessary rest, and to abstain from those habits or modes of life to which the vertigo owes its origin. Rest and relaxation will come first on our list of remedial measures; while ammonia, steel, bromide of potassium, and cod-liver oil will stand us in good stead as medicines.

Another form of vertigo which until lately has received but little attention, is that caused by a syphilitic taint. In this variety, we are often able to trace other and clearer evidences of syphilitic disease; but if these be obscure, we find the vertigo very persistent and recurring, often attended by much headache, confined to a particular spot, and occurring with greatest intensity at night. This is a rather constant feature, and facilitates the diagnosis. If unrelieved, the vertigo may increase in intensity to the extent of simulating epileptic convulsions, or even slight paralysis. This form renders the patient irritable, uncertain and difficult to control. Happily the treatment, if adopted early, is in general successful; the symptoms will ordinarily yield to increasingly large doses of the iodide of potassium with the perchloride or biniodide of mercury. As a help in discriminating this variety, I may mention that while simple epilepsy generally attacks the young, syphilitic vertigo, when it assumes a convulsive form, seldom occurs in those under thirty-five or forty years of age.

One of the most troublesome varieties of vertigo, from its persistency and from its resistance to remedies, is that met with in persons advanced in life. This giddiness is transient, very sudden in its accession; surrounding objects appear to be in motion, and unless the patient can at once seize upon a support, he falls. If he can sit or lie down, the attack subsides, leaving him a sufferer from more or less intense headache. It is seldom that this form of vertigo is attended by sickness. The "swimming in the head", as it is termed, is seldom functional,

unless arising from gout, and indicates rather an atheromatous degeneration of the arteries of the brain (a very common cause), or commencing disease of the cerebral tissue. In younger subjects, persistent vertigo may indicate cerebral tumour or disease of the cerebellum. These elderly patients will bear no lowering. Stimulation by mustard to the nape or behind the ears, with ammonia or the mineral acids, will be useful. When sleeplessness occurs as a prominent symptom in connexion with the vertigo (and it is often much complained of), I have found happy results obtained from the chloral hydrate as an occasional sedative as bedtime.

Vertigo arising from heart-disease is chiefly characterised by passive venous hyperæmia, and this, for the most part, will depend upon disease or weakness of the right auricle, interfering with the due return of blood from the brain. The prognosis in these circumstances must, of course be based upon the extent of mischief in the heart itself, and the treatment directed to the improvement of the tone of the general circulation.

In all cases of persistent vertigo, the urine should be carefully and repeatedly examined, since a diseased condition of kidney, with albuminous urine, and its consequent blood-poisoning, will be found to be not an infrequent cause of vertiginous disturbance.

In the above observations, I have by no means exhausted the various causes upon which giddiness may depend. Functional digestive derangement, as well as losses of blood, and all the varieties of toxæmic poisoning, might severally be adduced as influencing causes. My object, however, has been rather to place in review, very briefly, the more prominently exciting causes of the phenomena of vertigo as seen in every-day practice, arising as they do from such very opposite conditions, and, as such, if carefully investigated, becoming of real practical value.

EXCISION OF THE CLITORIS AND NYMPHÆ.

By J. ARKWRIGHT, Esq., Bowden.

A. B., aged 39, a married lady, with one child, had for several years been in bad health, suffering from indigestion, great constipation of the bowels (requiring the almost daily use of aperients); an almost constant desire to pass urine, returning during the twelve months preceding the operation every ten or fifteen minutes, night and day, and thereby sadly hindering her from sleeping; a frequent feeling as if the uterus were being forced down into the vagina; and, as a consequence of these disturbing agencies, great emaciation, and such an excited sensibility of the nervous system that for days together she could not bear the presence of her nearest relatives, and required the constant attendance of a night-nurse and a day one.

For weeks together no solid food was taken, and for several months the patient only left her bed from necessity; and at the time of the operation she was so debilitated that she could not walk without assistance.

The lady had been under the care of several eminent medical men, and been carefully examined by them, and had been subjected to various kinds of treatment, but with only trifling and temporary benefit; and, as I also failed to do her any real good, in January 1869 I accompanied her to London, where I had a consultation with a specialist of the highest reputation, who, after a most minute examination of the uterus and its appendages, the bladder and rectum, as well as of the various other organs, expressed an opinion that, beyond the continued use of iron, he could not suggest any treatment different from that which had already been pursued; and he thought the distressing symptoms might abate when the cessation of the menses occurred. Under the impression that long before that time the patient's bodily or mental condition would have succumbed, I resolved to consult Mr. Baker Brown; and the result was that, under the action of chloroform, he removed an indurated clitoris and congested and elongated nymphæ, and he also divided a fissure of the rectum. The result was that, in a few days—so soon, in fact, as the wounds ceased to be painful—the patient slept several hours at a time; all the distress of the bladder passed away; the action of the bowels became normal; the appetite and digestive power returned; the strength was rapidly regained; and, without any relapse, the patient fattened, her extreme nervousness passed away, and she resumed her place in society, and is at this moment—a year and three-quarters after the operation—in the enjoyment of perfect health. It may be mentioned, that most of the medical gentlemen who saw the case failed to discover any organic disease, though several expressed an opinion that mischief might possibly exist in the bladder or fundus of the uterus—an opinion which the result proved to be erroneous.

* Read before the East Anglian Branch.

INTRACRANIAL ABSCESS FROM DISEASE OF THE MASTOID CELLS, CURED BY OPERATION.

By FRANK BUSZARD, M.D. Lond., F.R.C.S., Northampton.

MRS. S., aged 40, when first seen by me on April 21st, 1869, had suffered for about eighteen months from most distressing headache, confined to the vertex and right side of the head, and more recently from neuralgia of the right side of the face. Six months before I saw her, an abscess had formed behind the right ear, and had been opened; since which time a succession of abscesses had continued to form and discharge at various times, little or no relief following. There had been frequently, and before any severe symptoms showed themselves, a watery discharge from the right ear, and slight deafness, gradually increasing. The pain in the head and face was stated to be rarely or never absent altogether; it was especially aggravated at night, and frequently so intense as altogether to prevent sleep, and oblige the patient to walk about her room to obtain some temporary relief. Every treatment had failed to do more than slightly alleviate.

Examination showed an abscess over the right mastoid process, and so much deafness of the right ear that the watch could not be heard at a distance of more than two inches. The pain which, judged by the patient's condition, was evidently most severe, extended from just above the external ear to the vertex. There was no tenderness; but, on the contrary, a feeling of numbness or deadness was complained of when the part was touched. The pain radiated along all the branches of the fifth nerve, accompanied by spasmodic movements of some of the muscles, especially of the right orbicularis palpebrarum. The pupils were natural; but the right eye was very sensitive to bright light. The pulse was normal, and the appetite was good; but there had been occasional attacks of vomiting. The membrana tympani was entire. It was obvious, from the general symptoms, and from the seat and character of the pain, that the dura mater was implicated in the disease.

On May 4th, having given chloroform, I made a free incision down to the bone at the back of the ear; and, though there was no apparent disease of the bone, this considerably relieved the pain as long as it remained open and discharging, but subsequently the case resumed its former untractable course. Being fully satisfied that there was a formation of pus either within the mastoid cells or outside the dura mater, I proposed to set it free by trephining; but to this the patient was disinclined to submit, till, the symptoms becoming much more urgent, the pain nearly constant, and very frequent vomiting with total loss of appetite and much drowsiness and oppression of brain being added, she finally consented; and I operated on September 1st. Chloroform having been administered, I exposed the bone fully by a free crucial incision, cutting through the attachment of the sterno-mastoid muscle. The bone looked dry, and gave scarcely any blood when scraped with a gouge. On examining it with a probe, I observed a small opening just above the mastoid process, and was able to pass the probe (a small steel one, without a bulbous extremity) into and through it to the interior of the cranium, and found a drop or two of pus following its withdrawal. Over this part I applied a small trephine, and, having removed the outer table of bone with it, completed the operation with chisel and forceps, so as to avoid injuring the lateral sinus. At least an ounce of viscid inodorous pus escaped, the greater part of which was collected. The opening in the bone was about a quarter of an inch in diameter. A director passed in without meeting any resistance for at least two inches, and the dura mater was not observed pulsating. There was much bleeding from small arteries in the sterno-mastoid muscle, which were with difficulty secured, and this made the operation long and troublesome. The wound was left open in the centre, the extremities being secured by sutures.

On the following morning, the pulsations of the dura mater at the bottom of the wound were readily observed. There had been a very free escape of pus, and at the same time all pain had ceased.

The patient made an almost uninterrupted recovery, though at one time during the healing of the wound the opening became obstructed by granulations, and pain returned. It was immediately removed, however, by passing a director through the opening in the bone, and restoring the channel for discharge. The director required passing every morning for some weeks; and subsequently the fistulous opening, discharging more or less freely, remained patent till January 1870, nearly four months after the operation, when it finally closed; since which time the patient has remained well.

The above is a good example of a generally fatal class of cases, and I am not aware that perforation of the bone has previously been practised as a means of treatment, though I find it spoken of as likely to afford relief by the late Mr. Toynbee, in his work on *Diseases of the*

Ear. To the gradual escape of pus through the enlarged venous canal in the bone, must be attributed the length of time which elapsed before the more urgent symptoms showed themselves, and the discovery of this orifice indicated the appropriate spot for the application of the trephine.

The peculiar sensation of numbness or deadness complained of on gently striking the side of the head, appeared to indicate a separation of the dura mater from the bone; and to the implication of the branches of the fifth nerve to the same membrane, the secondary neuralgia of its facial branches was plainly attributable.

CLINICAL MEMORANDA.

FATAL PULMONARY HÆMORRHAGE.

DR. POWELL cannot have read the record of my "Case of a rare form of Pulmonary Hæmorrhage" very carefully, otherwise it is difficult to imagine how he could have fallen into some of the errors contained in his note in the JOURNAL of last week. In the first place, he says my "opinion as to the source of hæmorrhage is doubtless the true one; viz., that it occurred through rupture of a dilated branch of the pulmonary artery in a cavity". If Dr. Powell will read the case again, I am sure he will find that I expressed no such opinion, for my own impression is that no cavity existed prior to the rupture of the aneurism, but that the one found *post mortem* was produced by the destruction of the lung-tissue by the extravasated blood. This also is Niemeyer's view of the nature of such cases.

Again, Dr. Powell says "I am unable to agree in the view that atheroma of the vessel may have been the primary cause of its dilatation. Atheromatous disease of the pulmonary artery or its branches is of very rare occurrence". Granted that the statement in the last sentence is correct, I still do not see why atheroma of the vessel should not have existed in my case, which I regard as one of exceptionally rare occurrence. No one regrets more than myself that the vessel was not examined more carefully; still I think that the existence of atheroma in the aorta, and the similarity of my case to those mentioned by Niemeyer, and one recorded in the *New York Medical Journal* for September 1870, substantiate the view I took of the pathology of the case.

In conclusion, I must remind Dr. Powell that the history of the case previous to the hæmoptysis altogether militated against the existence of a vomica, or indeed of any pulmonary or cardiac disease. Dr. Powell refers to the JOURNAL of November 19th for some cases of fatal hæmoptysis recorded by himself. May I ask Dr. Powell if December 3rd should not be substituted for November 19th?

J. B. BRADBURY, M.D., Physician to
Cambridge, Jan. 21, 1871. Addenbrooke's Hospital.

GUN-SHOT WOUND: WITH REMARKS ON THE EFFECTS OF ANTIMONY, ETC.

LAST Christmas I was summoned to see a farmer's son, who had received a gun-shot wound in the following manner. He was out with his younger brother, and, having got over a ditch without his gun, asked the other to hand it to him. While he was in the act of doing so, one of the barrels accidentally went off, sending its contents through the muscles of the chest down to the ribs a little above the left nipple, whence the shot glided to the left, passing under the anterior boundary of the axilla, riddling through it and making its exit by two distinct wounds between its base and posterior wall. The gun was loaded with small shot—No. 6, I believe—and a full charge of powder. The muzzle must have been pointing almost straight at the lad, and was from half-a-yard to a yard distant from him at the instant of the discharge. There was a good deal of shock; suppuration set in in due course, shots came away from the wounds, etc.

On the third day symptoms of an inflammatory nature presented themselves; quick, hard, bounding pulse, rigors, and delirium. I at once ordered antimony in nauseating doses, combined with a little Dover's powder. In twelve hours it acted like a charm. The fever was gone, and sleep procured. From that time till the wounds healed—only a few weeks—there was not a bad symptom. The dressings all along were of the simplest kind. It is worth notice that, as far as we could judge, no shots entered the chest; and that there was little hæmorrhage.

In giving antimony, in whatever dose, or for whatever purpose, whether as a diaphoretic, emetic, epispastic, expectorant, sedative, or contra-stimulant (Neligan's division), I feel more assured every day that the greatest care and watching are required. It will do any amount of

good or harm—as it is handled judiciously or otherwise; and it can be used with benefit in perhaps a greater number and variety of cases than any other drug. It is said that, if given in the form of pill, it will not be so likely to produce sickness as in the fluid form; but I have not found this the case. Not a dose more should be given than is actually required; and the best criterion is the pulse, not from its frequency, but from its change from hardness and pitch to softness and evenness. Antimony in small doses is a medicine that is readily tolerated for a long period. Of course, the general health and the diet must be attended to. In such cases as this one and the foregoing, where there is a wound of entrance and another of exit, the patient should be placed in such a way as will allow the discharge to drain away from *the wound of exit*. This may prevent pyæmia and other complications, for which disinfectants, in my opinion, get too much credit.

C. J. DENNY, Malvern Wells.

SOURCE OF LEAD-POISONING.

ANOTHER source of this affection, in addition to those already mentioned in the JOURNAL, and which I only discovered after much inquiry, occurred in a patient who attended my out-patient practice some years ago at the Westminster Hospital. He was a hale man of thirty-five years of age, who declared his occupation entailed no contact with lead. He had not had his rooms painted; and I asked him a string of questions, all of which he answered satisfactorily, and all of which tended to show that lead, except in the form of a pewter-pot, was the last metal he touched. Nevertheless, he had a most unmistakable "wrist-drop", and a distinctly marked blue line on the gums. Further questions, however, elicited that he occasionally played at a theatre, and that on these occasions he whitened his cheeks. The mystery was solved. He brought some of the "whitening", which proved to be white-lead. I recommended him to use Chinese or zinc white, and he gradually but completely recovered.

HENRY POWER, F.R.C.S., Ophthalmic Surgeon to
Seymour Street. St. Bartholomew's Hospital.

FATAL PULMONARY HÆMORRHAGE.

THE cases of fatal pulmonary hæmorrhage mentioned in the BRITISH MEDICAL JOURNAL during the last two weeks by Drs. Bradbury and Powell, induce me to notice a similar case which occurred under my care in Steevens's Hospital. A policeman, aged 41, twenty years in the police, was admitted on November 28th, 1870. He had caught cold three weeks previously, and had lost flesh since. Physical examination of the chest gave some slight roughness of respiration everywhere, but no distinct abnormal sound. Cough was very severe and troublesome, with little or no expectation. The cough was somewhat relieved by treatment; but no improvement took place in the general condition of the patient. On December 20th he died suddenly, immediately after a profuse hæmoptysis. On *post mortem* examination, the base of the left lung was found firmly adherent to the diaphragm; and, on attempting to detach it, the lung broke down easily under the fingers. The base of the lung was found to be filled with blood, and the lung-tissue completely broken up. At one point a considerable branch of the pulmonary artery was found ruptured, which no doubt was the cause of the hæmorrhage. Several of the smaller bronchial tubes seemed to be blocked up by cheesy deposits, but no true grey tubercles could be detected.

The foregoing case seems to be one of the same nature as those of Drs. Bradbury and Powell.

THOS. W. GRIMSHAW, M.D.,

Physician to Steevens's and Cork Street Fever Hospitals, Dublin.
January 21st, 1871.

TREATMENT OF HAY-FEVER BY SULPHUROUS ACID.

I HAVE read with much interest Dr. E. S. Thompson's notes on hay-fever in the JOURNAL of the 21st. During the last summer, I had several cases of this disease under my observation. I tried the effect of sulphurous acid both internally, in doses of twenty minims every three hours, and also in the way of fumigation. Very great relief was in every case the result. I believe that, if it could be employed continuously at the commencement of an attack, none of the formidable symptoms would be manifested. The fumigation is easily managed by burning one or two sulphur pastiles in a room, or more simply by burning sulphur on embers, as proposed by Mr. Startin in the same number of the JOURNAL. I find the readiest method of developing sulphurous acid fumes to be by igniting a mixture of two parts of flowers of sulphur and one of powdered charcoal on any non-combustible surface, such as a saucer or a bit of tin. Sulphurous acid is not so much

an irritant as it has the appearance of being. An atmosphere highly charged with it can be breathed with very small inconvenience, which soon passes off.

WALTER FERGUS, M.D.

Marlborough, Wilts.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

MIDDLESEX HOSPITAL.

CASES OF STRICTURE OF THE RECTUM.

Under the care of Mr. HULKE.

(From Notes by his Dressers, Messrs. LYCETT and SCALE.)

MOST cases of stricture of the rectum fall into one of two classes—either the contracture is due to the formation of a submucous fibroid scar-tissue, or it is caused by cancer. The differential diagnosis of these two kinds of stricture is not generally difficult. Simple stricture of the rectum is commonly met with in young adults, and in women more frequently than in men. It is often limited to a very short portion of the intestine, forming a thin diaphragm or crescent, which can be poised or moved about on the tip of the finger, showing the absence of abnormal adhesions of the rectum to the other contents or to the walls of the pelvis. Even when the stricture is longer, the mobility of the gut can generally be made out. The mucous membrane is smooth, even in the immediate neighbourhood of the stricture. The discharge, puriform or mucous, and sometimes tinged with blood, has never the sickening fœtor of that which marks cancer. In some instances, simple strictures are correctly attributable to chancreous ulcerations, resulting from *coitus per anum*; in others, to blennorrhœa, caught in the same manner, or produced by morbid fluids trickling along the perinæum from the vagina.

Cancerous strictures of the rectum, on the other hand, rarely occur in persons under mid-life, and they affect men as frequently as women. They quickly involve a longer extent of gut than simple strictures usually do, and the cancerous tissue soon forms a relatively considerable mass, which often projects into the open lower part of the rectum in the shape of a tuberos ring or collar, in the neighbourhood of which lesser secondary knots may frequently be felt. The extension of the cancer to neighbouring parts outside the gut also soon gives the obstructing mass an immobility which is one of the best clinical marks of a cancerous stricture. When ulceration and sloughing are present, the discharge is grumous, and often contains shreds of necrosed tissues and coagula.

In both kinds of stricture, the tenesmus, which is often very distressing, may not infrequently be relieved by the topical application of sedatives; and of these belladonna is one of the most useful—most so, perhaps, in the cancerous strictures, in which it gives more relief than opium. Injections of acetate of lead are of much use in arresting the blennorrhœa of simple stricture. Simple dilatation with graduated bougies, very gently introduced, gives in most instances more satisfactory results than dilatation combined with incisions. It is, however, applicable only to simple strictures, for in cancerous ones the frequent use of dilating instruments only aggravates the local distress. In these latter, however, some alleviation may be gained by carefully regulating the diet, by assisting the expulsion of fœces detained above the stricture with simple enemata injected through a small tube, and by colotomy. The relief which this gives in suitable cases is enormous; and it is probable that a longer experience of its benefits will at no very distant time lead to its earlier adoption than at present, when it is generally deferred till the patient is almost *in articulo mortis*.

CASE I.—*Cancerous Stricture of the Rectum*.—A labourer, aged 60, was admitted September 20th, 1870, into Handel Ward, having been in 1869, during eleven weeks, in the Middlesex Hospital. At the depth of two inches from the anus, a large tuberos mass, involving the whole circumference of the gut, was felt to project into the rectum. The finger-tip could be pushed into a depression in the middle of the mass—evidently the diminished canal of the bowel—but it could not be passed through it, so that the upward extent of the mass was not determinable. It was already very fixed. The surface of this tuberos collar was knotty and ragged to the touch. The man was plagued with tenesmus, and he voided frequently small, blackish, slimy, stinking stools, usually mixed with a little bright blood. His belly was tympanitic, and his appetite capricious. He was ordered to keep his bed,

placed upon a simple diet, and had a suppository containing half a grain of extract of belladonna three times a day. In a short time he felt so much better that he was allowed to be up; and after a few weeks he found so much relief that he requested leave to return home.

CASE II.—*Cancerous Stricture of Rectum*.—A labourer, aged 54, was admitted into Handel Ward August 13th, 1870. At the depth of the forefinger the rectum was blocked by a tuberculous mass. The lobes or tubers projecting from the anterior wall of the gut were smooth and firm, while those from the posterior wall were soft, and had a ragged ulcerated surface. At the centre, between the tubers, was a small pit, which would not admit the finger-tip—the contracted canal of the bowel. He had a heavy bearing down, and a frequent inclination to go to the closet, voiding scanty, offensive, slimy, shreddy, and bloody stools. His appearance was not cachectic nor anæmic, and there were no indications of disease in any other part. His health, he said, had been excellent until two years before, when he began to be troubled with diarrhoea. Some time later, defæcation became painful, and the size of the fæcal cylinder grew thinner. Six weeks before coming to the Hospital, he first noticed blood in the stools. At first he was confined to bed; but after a few days, feeling better, he was allowed to be up. He was placed on a simple diet, and ordered a suppository of extract of belladonna with morphia twice a day. A note on September 1st says: "He feels much stronger; he now passes only three or four motions a day, and those of a more natural appearance. He has scarcely any pain." On the 19th, he was discharged by his own desire.

In both these cases, at a later stage, the question of colotomy must be entertained.

CASE III.—*Cancer of Rectum: Colotomy*.—A nurse, advanced in years, was admitted into the cancer-wards with complete cancerous obstruction of the rectum, and an artificial anus in the left loin. The discharge was scanty; there were occasionally small hæmorrhages from the bowel; but she suffered so little that her sleep was not much disturbed, and her appetite was good. A vulcanite shield, with a small knob on its hollow surface, prevented the escape of fæces through the artificial anus, except when she had diarrhoea. She stated that her illness had begun two years previously with pain in the belly and bottom, frequent desire to go to the closet, with inability to empty the bowels, and the loss of a little blood after much straining. The difficulty increased, and at length there was complete obstruction. After this condition had lasted eight weeks, she entered St. George's Hospital almost dying, where Mr. P. Hewett opened the descending colon with instant and continuing relief. Since she has been in the Middlesex Hospital, she has had slight attacks of limited peritonitis; but the rectal cancer seems to have been rendered less active by the diversion of the fæces through the new channel; and there cannot be any doubt that her life has been much prolonged and her sufferings much lessened by the operation.

CASE IV.—*Simple Stricture of Rectum*.—, aged 25, was admitted into the Middlesex Hospital November 1st, 1870, with a stricture of the rectum admitting with difficulty the finger-tip; it was very short, having the form of a diaphragm. It was accompanied with a copious purulent discharge from the gut, sometimes bloody. Defæcation was very painful. She had enjoyed fair health until two years before, when she caught gonorrhoea, which was followed by labial abscess and inflamed glands in the groins. Some months later, she began to be troubled with diarrhoea; and, four months before entering the hospital, she first noticed a puriform discharge from the bowel, with some blood; and about this time she began to suffer much bearing-down pain and griping before and during defæcation, and noticed a decrease in the size of the fæcal cylinders. She attributed this state of the bowel to the introduction of his *finger* (?) by a man who was sleeping with her.

The treatment consisted in allaying the irritability of the rectum by small injections of laudanum in starch; and the use of Goulard injections, which soon had the effect of reducing the puriform discharge. After a few days, she began to take iodide of potassium; and from time to time a bougie was passed. On January 3rd, the discharge was no longer purulent, and very scanty; the size of the fæcal stools was larger; and on the 13th she was made an out-patient.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

THE SETON IN VASCULAR ULCERS OF THE CORNEA.

Under the care of Mr. SPENCER WATSON.

CASE I.—*Phlyctenular Ophthalmia, followed by a Vascular Papula of the Cornea: Rapid Improvement after the Seton*.—Robert S., aged 19, employed as a porter on a railway, a well-nourished, rather stout youth, with a ruddy complexion, but somewhat strumous aspect, was under treatment in February 1869 for phlyctenular ophthalmia of the left eye. For six weeks the treatment by tonics and atropine had been tried with-

out benefit, and on March 12th the left cornea had near its centre a raised, highly vascular pimple or ulcer, from which a triangular vascular patch extended to the margin, the base of the triangle being in continuity with the vessels of the conjunctiva. This vascular patch was flush with the surrounding cornea; and, on a superficial inspection, had the appearance of an uniform red stain, though when carefully examined it was found to consist of fine and closely aggregated capillary vessels. The photophobia was extreme. A seton was put into the left temple in the usual way. On March 19th, the seton was discharging. The patch above described was almost free from vessels. The photophobia was much less. On March 30, he had little or no photophobia. There was no vascularity of the cornea. The site of the ulcer was marked only by a faint nebula. The seton was removed.

REMARKS.—Thus in less than three weeks an affection of the cornea, which had resisted ordinary treatment for six weeks, was, to all appearance, cured under the influence of the seton. It is only fair, however, to observe that very shortly afterwards (viz., April 16th) an ulcer of the right cornea formed, and was associated with great conjunctival injection and photophobia. This ulcer was not vascular, nor was there any vascular patch nor string of vessels in connection with it; and it healed under the usual treatment without the use of the seton. Occasional relapses, however, occurred during many months, and phlyctenules appeared first on one cornea and then on the other, and treatment seemed to avail very little in checking or altering the course of the disease.

CASE II.—*"Arboriform" Ulcer: Very rapid Improvement after Seton*.—A boy aged 9 was under treatment in May 1869. He had suffered from inflammation of the eyes for six or seven months. He had been under treatment at the Hospital for fourteen days on June 1st without benefit. On the right cornea was a raised vascular ulcer near the centre, with a leash of vessels running into it from the sclerotic-corneal margin. The ulcer was rather larger than a millet-seed. On the left cornea was a smaller ulcer. Great difficulty was experienced in getting a glimpse of these ulcers on account of the intense intolerance of light, and the condition of the corneæ was only ascertained by forcibly opening the eyelids. On June 1st, a seton of doubled ligatured silk was passed under the skin of the right temple, the track of the thread being not longer than half an inch. On June 8th, there was great improvement; no photophobia. On June 15th, the site of the ulcer on the right cornea was marked by a nebula which was level with the surrounding cornea and free from vessels, the rest of the cornea being quite transparent. There was a faint nebula marking the site of the ulcer in the left eye. This condition remained; and on November 12th the nebulae were fading. The general health had continued good up to that time.

REMARKS.—The shape of the ulcer was characteristic. It resembled an oak-tree, the stem being represented by the vessels running from the conjunctiva and sclerotic into the ulcer. This form seems to be occasioned by the extension of the ulceration on the side most distant from the point at which the vascular supply enters the papule or phlyctenule. It is not unlikely that the swelling of the cornea at the point occupied by the primitive phlyctenule, from which the ulcer originates, may close up the usual channels through which nutriment reaches the more central region of the cornea. The result is ulceration of the parts furthest from the conjunctiva, and the ulceration necessarily extends in a semicircle, until the nearly developed vessels bring a fresh supply of materials necessary for repair. In this case not only was the form of the ulcer strikingly "arboriform", but the nebula remaining after it had healed retained this form, so that it would have been possible to recognise the case for a considerable time afterwards as an instance of the "arboriform" ulcer. The "fascicular" keratitis, which is spoken of by Mr. Soelberg Wells, is probably the same kind of ulcerative process. But the name "fascicular" is derived, so to speak, from the trunk of the tree; and in many instances the long *bundle* of vessels running into the ulcer is the more prominent feature, the ulcer itself being of comparatively small size. In the very case above related, the form of ulcer in the left eye was of the "fascicular" variety, and that in the right "arboriform".

MATER MISERICORDIÆ HOSPITAL, DUBLIN.

CARDIAC HYPERTROPHY: PERICARDITIS: MITRAL AND TRICUSPID CONSTRICTION AND INADEQUACY: AORTIC OBSTRUCTION AND REFLUX.

(Under the care of Dr. HAYDEN.)

PATRICK M., aged 23, shoemaker, was admitted July 22nd, 1870. He had had rheumatic fever twice—viz., at the ages of nine and thirteen years respectively. He had been more or less invalided for the previous nine months; and, five weeks prior to admittance, he spat blood for a week, and had cough. Three weeks later, his feet began to swell;

and, during the week preceding his admittance, he had been unable to lie down, owing to dyspnœa.

When admitted, he was pale, with a circumscribed malar blush. There was considerable dyspnœa, which was occasionally paroxysmal. Respiration 48; pulse irregular, very weak, and varying from 96 to 108. The feet and legs were greatly swollen; the tongue was clean and moist, but livid. Urine was passed in very small quantity, of specific gravity 1020, and albuminous. The liver was enlarged, descending two inches below the umbilicus, and tender to pressure. There was congestion and œdema of the bases of both lungs. The heart lay horizontally; the apex-beat was in the sixth intercostal space, two and a half inches outside the nipple-line. Here a presystolic fremitus was perceptible; and here likewise a rough jarring presystolic murmur was audible, the first sound being feeble, and associated with a faint but soft systolic murmur. One inch to the left of the lower end of the sternum were likewise heard two murmurs of corresponding rhythm—the former, however, much less harsh than that at the apex; and at the ensiform cartilage, a loud soft systolic murmur, of a somewhat metallic resonance, and faintly transmitted in the course of the aorta, but not audible in the neck, was detected. The second sound at the base was sharp, and not double or accentuated in the pulmonary artery.

Treatment afforded only partial and temporary relief, and the patient died on the 27th. Half a pint of serum, with a few flakes of floating lymph, was found in the pericardium. The heart was enlarged and globular, and, freed from clots, weighed $17\frac{1}{2}$ ounces. The visceral pericardium was thickened, opaque, and rough, on the posterior surface of the right auricle, and to a small extent on the anterior surface of the right ventricle; and attached to the left apex were two long pendulous flakes of lymph. The root of the pulmonary artery was opaque and vascular externally. The right chambers contained a good deal of decolorised fibrine, extending from the auricular appendix, which was quite filled with it, through the tricuspid opening into the right ventricle, but not into the pulmonary artery. The tricuspid orifice was reduced to the size of the tip of the middle finger, ovoid in figure, and bound by the coherent valve, the segments of which were greatly thickened, but smooth and white, as were likewise the attached chordæ tendinæ; the papillary muscles were thickened. The right auricle was dilated and somewhat hypertrophied. The right ventricle was normal as to size and thickness. The pulmonary artery and valves were normal. The left auricle was greatly dilated and thickened. The mitral opening was converted into a slit admitting only the point of the index finger, bounded by the thickened and coherent segments of the mitral valve, the auricular aspect of which presented several patches of calcareous deposit. The papillary muscles and chordæ tendinæ were thickened. The left ventricle was slightly dilated and thinned at the apex, but otherwise unaltered. The aorta was much reduced in size, and of a deep red tint internally; its valves were somewhat thickened, but smooth and partially incompetent.

The case, Dr. Hayden observes, is interesting chiefly as an example of tricuspid obstruction, yielding the pathognomonic sign of that condition, presystolic murmur, of which, in the number of this JOURNAL for January 21st, Dr. Sieveking says: "An obstructive tricuspid murmur is spoken of in books as a theoretical possibility; but it does not appear that it has been actually met with in practice." The area of tricuspid murmur is, according to Dr. Hayden's observation, somewhat different from that usually indicated; its central point is about an inch to the left of the sternum, at the level of the sixth costal cartilage, with a radius of about one inch. In this JOURNAL (May 16th, 1868) Dr. Henry Simpson of Manchester published a series of cases of auriculo-ventricular stenosis, in two of which both the mitral and tricuspid orifices were constricted, as proved by *post mortem* examination. One of these cases was strikingly similar to that above narrated. Dr. Hayden submits, in conclusion, that tricuspid obstructive murmur is something more than "a theoretical possibility".

SOUTH STAFFORDSHIRE GENERAL HOSPITAL, WOLVERHAMPTON.

OSSEOUS TUMOUR OF THE RIGHT UPPER MAXILLARY BONE: SUCCESSFUL REMOVAL OF THE WHOLE BONE.

(Under the care of Mr. VINCENT JACKSON.)

MARY ANN HARRIS, aged 14, a servant, was admitted June 29th, 1870. The patient stated that about two years previously she noticed a small swelling of the alveolar process of the right superior maxilla, just above the first molar tooth, very hard, but not painful. In about two months more its size was that of a small nut. From that period it gradually increased, but was never painful. The girl was, and looked, very healthy, and her relations on both sides had ever been so. A prominent tumour occupied the greater portion of the superior maxilla, extending above

nearly to the orbital plate. The hard palate of the right side was considerably lower than its fellow, being dense and firm, as if much thickened. On the outer side and in front it formed a rounded prominence. Internally, the disease did not affect the septum of the nose. All over it was to the feel very hard and solid. No fluctuation nor crackling could be perceived. The cutaneous tissues were freely moveable over it. There was no glandular enlargement.

July 1st.—Chloroform having been administered, Mr. Jackson first introduced a small gimlet through the mucous membrane into the most prominent portion of the swelling for about one inch in the direction of the antrum; the point of the instrument was quite fixed; no fluid escaped, and on the withdrawal of the gimlet, nothing but a plug of bony material was found in the groove. The middle incisor tooth on the right side was next extracted, and the upper lip cut through in the middle line, the incision being extended a little outwards and upwards, so as to divide the right ala nasi. With a small saw the alveolar border and palate process were severed; and the nasal process was clipped through with pliers. With the same instrument an attempt was made to divide the bone below the margin of the orbit from the nose to the malar prominence, but, owing to the eburnated condition of this texture, this could not be accomplished, and it was sawn through instead. The jaw was now seized with the lion-forceps and dragged away, the soft palate being previously detached with scissors. Three vessels were secured in the superficial structures, but there was no bleeding to arrest in the deeper portion; the soft parts were brought together with a joint or two of interrupted suture, the cavity having been plugged with lint; the nose, on the right side, was likewise supported with a plug.

July 8th.—Reaction was established. The patient had a good deal of vomiting soon after rallying from chloroform, but it was now stayed. The plug of lint was removed, and the cavity ordered to be syringed out frequently with cold water at first; afterwards with a solution of Condy's fluid.

July 10th.—The right side of the face was much swollen; the eye was closed. The sutures were removed; union was complete. A linseed poultice was ordered. The patient took plenty of milk and beef-tea.

July 13th.—She was much better. Two ounces of port wine were added to the diet.

July 17th.—She was allowed to get up. The healing process within the mouth was rapidly advancing. The parts were well cleansed frequently during the day by syringing with cold water; afterwards with a lotion of sulphate of zinc (two grains to one ounce). Meat diet and half a pint of ale were ordered.

October 12th.—The patient had now become quite stout and hearty. Mr. De Lessert, the dentist, having prepared an artificial roof of vulcanite furnished with a set of teeth for the right side, placed it within the patient's mouth. Its fit was admirable, and its presence quite comfortable. The right side of the face regained its proper contour, and immediately she was enabled to speak with a clearness, distinctness, and loudness impossible before.

October 18th.—She was discharged. A careful examination of the jaw after its removal, showed the disease to be an example of hypertrophy of the osseous structure, occluding the antrum and producing one thickened ivory-like mass of bone.

REPORTS AND ANALYSES IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

COCOA AND CONDENSED MILK.

THE English Condensed Milk Company (Lion Brand) have introduced into use a combination of cocoa and condensed milk, which is, in its way, perfect. A teaspoonful dissolved in a small cup of boiling water makes on the spot a cup of excellent, pure, and delicious cocoa, or chocolate, as you may please to call it, which requires neither further sugar or milk. Made of pure cocoa and condensed milk, with an adequate addition of sugar, and prepared in small tins which can be kept for any length of time, it recommends itself for a great number of useful purposes which immediately suggest themselves—in the sick-room, whether for patient, or nurse, or weary doctor; in hospitals, ships, camps; in the study of the night-worker, the bachelor's cupboard, the emigrant's stores, the army canteen, the volunteer camp; for yachting and exploring parties; for fishing, shooting, and picnic excursions, at home and abroad, it will be alike grateful and convenient. It is a very happy idea, well carried out; and will, we expect, achieve an immediate and extended success.

REPORTS OF SOCIETIES.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, DEC. 21.

R. DRUITT, M.D., President, in the Chair.

DR. ROBERT BARNES read a paper on the question "How far is the present prevalence of Small-pox to be attributed to the plan recently introduced of limiting the number of Public Vaccinators?" Since it was assumed, said Dr. Barnes, that the present prevalence of small-pox is evidence of the neglect of vaccination, the practical question arose as to what were the causes of this neglect, and how was it to be remedied. That a country could be secured against the ravages of small-pox was proved by the immunity of Ireland as compared with the havoc caused by the disease in England. A comparison of the systems of vaccination carried out in the two countries would show where the fault lay. He would prove that the English system was unsuccessful, from the Registrar-General's weekly reports during the six months ending December 31st, 1870. The deaths from small-pox in London rose from 12 in the twenty-sixth week to 110 in the fifty-second week, and the mortality was still increasing. The total number of deaths in the latter half of 1870 was 749; of these, 389—or more than one-half—were in children under 5 years of age, of whom it might be assumed that a large proportion were unvaccinated. From an examination of the books at the Small-pox Hospital, it appeared that 25 children under 3 years of age were admitted during the latter half of 1870. Of these, 20 were unvaccinated; the 5 vaccinated recovered; 12 out of the 20 unvaccinated died. From these figures, and from the knowledge of the fact that small-pox is not often fatal in vaccinated persons, it might be concluded that only a small proportion of these 749 persons were vaccinated. Dr. Barnes adduced numerous reasons to show that it was in the highest degree unsafe to rely upon a comparison between the number of registered births and of registered vaccinations, in seeking to estimate the extent to which vaccination is practised. But, after all, the practical point was to find out the individuals who were unvaccinated, for the sake of protecting them and the community. As an example of the manner in which this might be carried out, Dr. Barnes mentioned that in 1861, when Medical Officer of Health for Shoreditch, he inspected two schools. Of 264 children examined, 8 had had small-pox, 164 had good scars, 56 bad scars. He had 95 of these children vaccinated immediately; 49 took the disease fully, and 33 in a modified form. Medical officers of health in various parts of the metropolis reported, from inspection alone, about the same time, that 10 per cent. of the children were not vaccinated. Tested by vaccination, he (Dr. Barnes) found that 30 per cent. were unprotected. He in consequence advised the Shoreditch Guardians to increase the number of vaccinators from six to eight, for he was of opinion that increasing the numbers of vaccinators would tend to dispel prejudices and to increase facilities for vaccination. He considered that the new system of limiting and concentrating vaccine stations had not shown itself successful. At Islington, for instance, the number of vaccinations had fallen considerably. Dr. Barnes allowed that there were many advantages in the new system, but thought they were too dearly bought if the number of children to which the advantage was brought was thereby diminished. The two primary conditions for securing good and universal vaccination were, so to work the registration of births as to bring every child promptly under medical observation, and to utilise as large a number of medical men as possible in the work of vaccination. To effect this, he suggested that the registration of births should be made compulsory; the freest communication between the registrars of births and the vaccinators must be provided; the parents of children vaccinated by a private practitioner must be made answerable for the return of a certificate of vaccination to the Registrar; the number of public vaccinators should be made at least co-extensive with the districts of the Poor-law medical officers; and, lastly, some comprehensive scheme of medical inspection of the community as to immunity from small-pox must be instituted.

A vote of thanks was passed by acclamation to Dr. Barnes for his very able paper.

Dr. ILIFF criticised the new system, and was decidedly adverse to any diminution in the number of vaccinators.—Dr. LETHEBY showed how, by an efficient system of vaccination, small-pox was stamped out in the city. A diminution of vaccinators would, he maintained, be fraught with mischief.—Dr. TRIPE not only was adverse to the concentration of vaccine stations, but even advised that house-to-house vaccination ought to be pressed, especially at the present time.—Dr. G. ROSS thought the proper thing would be to find out how many children

would require the services of the vaccinators, and that the number of vaccinators should be in proportion to that number. He considered that inspection of the poor was necessary, and that vaccine should be carried to them in their houses. In the city of London, the vaccinators had access to the Register of Births, and could provide for the vaccination of the children.—Mr. LIDDLE disagreed with many of the preceding speakers. In the present state of vaccination, he thought that many children were not properly vaccinated. An efficient system attended with inspection was desirable. Mr. Liddle remarked upon the universality of vaccination among the Jewish population, and their almost total immunity from death by small-pox.—Dr. SEATON was glad to find that blame was not thrown upon the system of vaccination of the Privy Council, otherwise he was come prepared to show that those parts of the metropolis where that plan had not been introduced were subject to the greatest ravages. He then proceeded to speak of the investigations that had preceded and paved the way for the present system—the abuses that were found to exist both with respect to the capacity of the vaccinators, the quality of the vaccine, and the manner in which vaccination was carried out. He maintained that in Coventry, Bristol, Exeter, Manchester, and other places, where the system of the Privy Council had had a fair trial, it had been found successful. In the metropolis it had not been got fairly to work, and he therefore recommended that they should suspend their judgment until it had had a fair trial.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, JAN. 3RD, 1871.

RICHARD QUAIN, M.D., President, in the Chair.

THE annual report of the Council was read and adopted.

Dr. HEYWOOD SMITH exhibited a remarkable Cystic Kidney, containing a calculus, and weighing nine pounds. The colon and omentum were adherent. It was taken from the body of a female. The tumour had fluctuated during life, and was tapped, twenty-eight ounces of fluid pus having escaped. The same operation had on a former occasion been performed.—Dr. DICKINSON remarked that the greater part of the tumour appeared to be fat which frequently collected round pyelitic kidneys. This was due, he believed, to congestion, and was similar to the accumulation of fat in some cases of pleuritis.

Mr. HULKE related the symptoms of three cases of Rodent Ulcer, entering particularly and at some length into the anatomical characters of the affection, with special reference to its cancerous or non-cancerous character. Numerous drawings of their minute structure were exhibited. These pointed to the local disease being composed of connective tissue, with abundant proliferation apparently of the connective tissue corpuscles, the cells resembling frequently those of the rete.—Dr. TILBURY FOX asked if there were any of the "globes épidermiques" observed by Mr. Moore in epithelial cancer.—Mr. ARNOTT observed that Mr. Moore had described the histological characters of rodent ulcer as those of cancer. In one case, Mr. Arnott had found the microscopical appearances of scirrhus without any cachexia or glandular affection.

Mr. HULKE exhibited a specimen of Scirrhus removed from the lower jaw of a man forty-two years of age. An epithelial ulcer had some time previously to the appearance of this tumour, been removed from the lower lip.

Mr. HULKE also showed a Fibroma of the Transversalis Abdominis Muscle, of the size of a goose's egg, taken from a female, aged 32.

Dr. MURCHISON related an interesting case presenting the symptoms of renal calculus, but in which, from various reasons, it was thought probable that a biliary calculus had found its way into the right ureter. The patient was the subject, at the time, of biliary fistula, discharging gall-stones externally. The patient at length passed a lithic acid calculus.

Dr. MURCHISON next exhibited a Gall-stone which had been passed through a biliary fistula in a lady. It had obstructed the common duct, and not, as is usual, the cystic duct. One to two pints of bile flowed from the fistulous opening every day. The fistula healed, and the patient recovered.

Dr. MURCHISON also exhibited a Lymphadenoma of the Chest and Kidneys taken from the body of a female, aged 21. There was a family history of cancer, tubercle, and rheumatism. The cervical glands were also involved.

Mr. J. CROFT exhibited a specimen of Popliteal Aneurism taken from the body of a plumber, aged 40. After two days flexion without result, a tourniquet was applied on the third day with apparent success in twenty-four hours. The patient died a few weeks afterwards of hæmoptysis, consequent on the rupture of a thoracic aneurism. In the popliteal aneurism the channel of the artery was found to be restored through the clot.

Dr. SQUIRE showed a specimen of Direct Inguinal Hernia of ten years' standing, which became strangulated, and was relieved by operation. The patient, an old lady, died on the third day, however, apparently of exhaustion.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, DECEMBER 7TH, 1870.

J. O. FLETCHER, M.D., President, in the Chair.

[Concluded.]

Clinical Observations on Rickets.—Dr. RITCHIE read a paper on this subject. His observations were made chiefly on children who came under his care as out-patients at the Hulme Dispensary between November 1869 and November 1870. From an analysis of the total number of children, he found that fully 32.5 per cent. of those under two years of age were rickety. After remarking on the importance of the consideration of *diathesis* in the treatment of diseases of children, he dwelt on the diagnosis of rickets from tuberculosis when the characteristic bone-changes had not yet appeared, or were very slightly marked. According to his observation, this was chiefly dependent on careful thermometrical measurements. The visceral changes were then discussed with special reference to Dr. Dickinson's recent researches on the subject. In a few remarks on the treatment of rickets, reference was made to the use of the sulphocarbonate of calcium. It was employed in twenty-six cases, in only two of which did any benefit seem to follow its administration; and the improvement in these was attributed to improved dietetic and hygienic conditions.

Forceps in Midwifery.—Dr. THORBURN read notes of twelve selected cases of forceps delivery illustrating points in practice. He considered that the forceps was not nearly so frequently used in practice as it ought to be, whether in ordinary labour or as a substitute for craniotomy. In several of the cases, from inefficiency of uterine action, or from disproportion between the size of the head and the width of the passages, or exhaustion from protraction of the first stage, it seemed right to have recourse to the forceps, although longer waiting would no doubt have shown that the natural efforts were sufficient. Two cases illustrated the advantage of continued pressure on the head when above the brim for a time before extraction. Both patients had previously been delivered by craniotomy, and, on the occasion referred to, no efforts with the forceps were availing till the head was compressed with the blades. In one case, this was accomplished by tying the handles together and leaving them in position for nearly an hour. In the other, Dr. Thorburn used a pair of forceps of his own contrivance, longer than those generally used, and furnished with a screw in the handle, by means of which the blades can be approximated at will. In the latter case, the child did not show the least sign of suspended animation. Two other cases demonstrated the use of the forceps as a means of dilating the os uteri. In another case, allusion was made to a point not generally known, viz., that, where there is much projection of the promontory of the sacrum or great obliquity of the uterus, much advantage may be gained by turning the head round the projection in the same fashion as round the arch of the pubes.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, DECEMBER 9TH, 1870.

The Nature of the Syphilitic Poison.—Mr. MORGAN made a communication in which he advanced arguments which went to prove the unity of the Syphilitic Poison, as opposed to the generally received theory of its *duality*. In his experience of cases at the Westmorland Lock Hospital, Dublin, such a thing as a *hard* chancre is scarcely known, whereas this form of sore is by no means rare among the men who are infected by the same class of women as is received into that Hospital. Mr. Morgan also mentioned several individual instances in which he was enabled to trace the communication of the disease, showing itself by the *hard* chancre in the *male*, from that manifesting itself by the *soft* chancre in the *female*. The author's views were also borne out by the result of his investigations as to the effects of the inoculation of syphilitic discharge upon patients previously diseased.—Dr. BARTON believed that there were two different kinds of sores, one of which ran a local course, whereas the second was the commencement of a constitutional disease. To say that in women the chancroid or soft sore was the only real origin of syphilis was, in his opinion, incorrect; all that could be stated being that in them true venereal disease was not marked by the characteristic hard sore.—Dr. STAPLETON believed, from his own experience, that there existed two distinct poisons; and that secondary symptoms were the invariable result, notwithstanding treatment, of a true indurated chancre.—Dr. HAMILTON LABATT was surprised to hear it said that a

soft chancre was never followed by secondary symptoms. If this were the case, secondaries should be extremely rare.—At the conclusion of Dr. Labatt's remarks, a motion of adjournment was brought in by Dr. Macnamara, and was at once agreed to.

FRIDAY, JANUARY 6TH, 1871.

ALBERT J. WALSH, M.D., President, in the Chair.

Nature of the Syphilitic Poison.—The adjourned debate on Mr. Morgan's paper was resumed. Dr. MACNAMARA, having complimented Mr. Morgan on the clear and concise manner in which he had brought the subject before the Society, expressed his entire belief in the unity of the venereal infection. He adduced an instance in which three individuals had had primary sores after intercourse with one and the same female. In one case, no secondary symptoms ensued; in another, severe constitutional signs showed themselves, yet the patient ultimately became the father of a large and healthy family; and in the third, fatal results followed in a comparatively short time.—Dr. M'DONNELL supported the dual theory of syphilitic infection, but admitted that there was no exact line which separated the two affections known as the syphilitic and the simple sores. He regarded the relation between these as analogous to that existing between variola and varicella.—Mr. B. F. M'DOWELL, Surgeon to the Lock Hospital, believed that in males, of the two forms of sores, one was followed, and the other not followed, by constitutional signs. In the female, the soft sore, on the other hand, frequently led to secondary results. He had tested some cases by inoculation, and had found that in inoculable patients no constitutional symptoms followed the operation. He had failed in inoculating mucous patches.—Mr. TUFNELL agreed with Dr. Macnamara's observations, having had, as a military surgeon, numerous opportunities of observation. He had found evidences of the existence of one poison only, leading to varying results.—Dr. JOHNSTONE was inclined, from an extensive experience in the army, to regard venereal disease as a tolerably simple affection, where proper care was given to, and cleanliness enforced on, the patients. Dr. Macnamara's observations seemed to him inconclusive.—Dr. STEWART expressed himself as opposed to the dual theory.—Dr. HENRY KENNEDY, alluding to the difference in the characters exhibited by an attack of scarlatina in the case of various members of the same family, said that something, which in the present state of knowledge could not be defined, modified the morbid poison of syphilis either in the recipient or in the mode of its infection. He saw no necessity for assuming the existence of a double poison, but believed that the one poison was modified by individual, and, as yet, unsettled influences.—Dr. CROLY impugned the accuracy of deductions drawn from the examination of women, on the ground that, from their habits, they might be the subjects of three or four diseases at the same time.—Dr. WHARTON considered that the most remarkable feature in the question of the unity of the syphilitic poison, one especially referred to by Mr. Morgan, was that of the inoculability of the vaginal discharge or secretion. He had himself witnessed the result of the inoculation, and had visited the cases in hospital, and so had had an opportunity of studying the occurrence and appearances of the resulting sores.—Mr. MORGAN replied, after exhibiting some drawings of inoculations which he had performed in patients constitutionally infected from vaginal secretion. These drawings all presented the well-known outlines and characteristics of the soft or simple sore, which had been at once produced by the inoculation of vaginal discharge when no disease had previously manifested itself, even two months after the primary infection. Mr. Morgan believed that inoculation with the vaginal discharge of a tainted female would produce the usual soft sore, which would accordingly possess the poisonous properties of its parentage. The chancroid sore produced by inoculation was invariably proportional in its extent and severity to the intensity of the infecting power possessed by the pus operated upon. On the other hand, the individual originally most severely infected was the least susceptible of inoculation. Mr. Morgan conceived that this property of the discharge or secretion from an infected subject went far towards establishing the original unity of the poison, as also towards explaining how it happened that women infected men under circumstances where, on careful examination, no sore whatever could be detected in the former. Mr. Morgan read an abstract from a letter which he had received from Dr. Chaplin, of the Kildare Infirmary and Lock Hospital, who had male patients in hospital who had sores derived from women whom they indicated by name. These women were also under Dr. Chaplin's care in the Lock Hospital, and he declared he could find no sore whatever upon any of them, there being a vaginal discharge only. On Mr. Morgan proceeding to refer to other questions incidental to the topic, such as syphilisation and inoculation, a motion of adjournment of the discussion to the next meeting of the Society was adopted.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, Medical Appointments and Trials, Hospital and Society Meetings, important Inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, JANUARY 28TH, 1871.

MEDICAL REFORM.

THE Reform Committee is at present engaged in drafting a Bill to amend the Medical Act of 1858. The resolutions agreed to by the Committee, which must constitute the basis of "THE BILL OF THE ASSOCIATION," were published by us in our issue for January the 14th instant. They are in accordance with the principles advocated by the Association for many years, and approved of at several successive general meetings. They are correctly described as involving—"One portal, compulsory registration, improved examinations, the annulling of the power of conferring honorary degrees, and direct representation of the profession to the extent of one-fourth of the General Medical Council."

The Association refused to accept the withdrawn Government Bill of last year because it did not embody the principles for which it had contended, and it was supported in its opposition to the Bill by hundreds of petitions signed by thousands of the registered medical practitioners of the United Kingdom, and not only by members of the Association. The Association was the only body that could and did act on behalf of the scattered members of the profession—the only body that could effectually press the wishes and claims of the profession upon members of the legislature. The profession in mass responded to the call of the executive of the Association, energetically supported them in their opposition to the Government Bill, and the Bill was in consequence withdrawn. The officers of the Association simply represented it as what it was—a society of upwards of four thousand members elected from the registered members of the profession. As such, and by reason also of its division into branches, each capable of speaking for itself, and each fully represented on a footing of complete equality in the General Council, it has a representative character which is unique, and which needs no other presentation than the examination of the plain facts.

Other parties, notably several of the Corporations represented on the General Medical Council, also opposed the Bill; the Colleges of Physicians and of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, the King and Queen's College of Physicians of Ireland—one and all petitioned in favour of the direct representation of the profession in the General Medical Council, and the Irish College of Surgeons actually drafted clauses whereby this object was to be obtained.

Still, though other parties opposed the Government Bill, the Association was the only one to which the Government made a distinct proposition for the withdrawal of its opposition. The proposal was declined, and the Bill was withdrawn. On this announcement being made, it was at once declared that the responsibility of preparing a Bill to replace that withdrawn rested with the Association; and at the annual meeting at Newcastle in August last, a Reform Committee, comprising representative members of the profession from the three divisions of the kingdom, was appointed. As some of these gentlemen have been described as easily led, we may here enumerate the names: Dr. Charlton (President of the Association), Mr. Whipple (President-elect), Mr. Husband (President of Council), Dr. Falconer (Treasurer), Dr. Edward Waters, Dr. Chadwick, Mr. Southam, Dr. Sibson, Dr. A. P. Stewart, Mr. W. H. Michael, the Rev. Dr. Haughton, Mr. Heckstall Smith, Dr. Davey, Dr. Hughes Bennett, and the General Secretary. It may not be inapt to ask whether such men as, for example, Professor Hughes Bennett and Professor Haughton, are likely to be passively led?

These facts being before the profession, a medical paper, unsolicited by any party, came forward in December, and, knowing that the Association was committed to the preparation of a Bill, knowing that a Committee had been appointed in August for the express purpose of framing it, without communication with any of the officers of the Association, volunteered and published a Bill, which it baptised with its own name. Who may have been the half-dozen persons engaged in preparing the proposed measure, can only truly be known to those who have worked at it. How far it lies within the province of a journal thus to act, is a very doubtful question. It is made a source of complaint that the Medical Reform Committee of the Association cannot be said, at most, to represent more than a stated proportion of the profession in this country. What can be said of a self-appointed committee of one? and of a document which represents only two or three gentlemen in a back room? We have authority for stating, having made inquiry on the subject, that the Reform Committee, in a spirit of loyalty to the profession and to the public, have not omitted the consideration of this more than of other schemes, and have carefully considered its provisions. In its mode of dealing with the Medical Council, it differed from the elder scheme of the Association by reducing the representatives of the Universities and Corporations from three-fourths to one-third, placing them in a decided minority. The Association has always proposed that the Universities and Corporations should retain one-half of the representatives; and, as the Council is essentially one of education and the registration of educational titles, dealing with the business and duties of the educational and examining bodies, and as it is intended to make the enactments of the Council binding on these bodies, this appears to be the more just proportion. A fatal objection to this document, in the minds of the Committee, was the unanimous conviction that it would be impossible to carry it into law. Supposing that the Universities and Corporations in England agreed to divide between them the two representatives on the Council which it allotted to them, it could scarcely be presumed that the Universities and Corporations of our brethren north of the Tweed would be content with one between them, or that the professional bodies in Ireland would be more placable. It is self-evident that the Universities and Corporations have, as educational and examining bodies, such essentially different characters that, if represented at all, they cannot be represented by the same individual. Universities may be grouped with Universities in representation—Colleges with Colleges; bodies of more or less importance may even be omitted from the franchise; but Universities and Colleges subserve different purposes, and cannot be conjoined in representation. A strong array of Scotch and Irish members would inevitably be marshalled against such a measure, and defeat it.

The Association has now for several years fought the battle of reform, with the view of benefiting the public and the profession: the former, by improving the education, and honestly testing the acquirements, of those to whom the health of the community is confided; the latter, by elevating the social status of its members. For the attainment of these objects, it will struggle to the end, and with better prospects now than ever; for its disinterested and well organised efforts during last session gained an acknowledged position for it and for extra-corporate and general professional interests, with the Government and both Houses of Parliament, which had never before been attained.

The Association may well be regarded as a fair specimen of the profession and of its opinions. The Bill of its Reform Committee, embodying the views of the Association, will, we believe, meet with such support from the profession as will enable the Association to carry it to a successful issue.

MEDICAL EDUCATION.

MR. DE MORGAN's address will be read with interest, due as much to the speaker as to the subject. He shares with Count von Moltke the golden gift of silence in several languages. As a representative at once of the scientific and the conservative element, his words, when they come

are well worth weighing. The value which he assigns to the work of the Medical Teachers' Association nicely discriminates its worth. It is a consultative assembly of experts. The absence of any one or other great school is a matter of concern, but hardly affects at all the influence and worth of the conclusions of the Association, which are due to their apparent and intrinsic usefulness and critical accuracy. If only ten men of the same calibre were gathered together in the name and interests of education, their deliberations could not fail to exert an useful influence. It is very certain that this Association has done at least as much as Mr. De Morgan claims for it. If he had said that, in engaging Mr. Simon in the detailed consideration of medical education and examination, and in producing the able and classical minute drawn up under his chairmanship and that of Sir William Jenner, it had practically given the most important impulse of recent years to medical reform, and fostered the germ of the Government Bill of last session, he would have still been, we believe, within the limits of fact. The Association has now to concern itself with the mode of improving the practical teaching of Physiology and Surgery. It is curious to see how the teachers and the Colleges now healthily react one upon the other. The College of Surgeons, in its regulations to which we have already drawn attention, was undoubtedly moved by the demands of the teachers, who complained that the examinations did not do justice to their teaching, and gave no encouragement to the best and most complete instruction. The College, in its turn, issues regulations compulsory in all cases, and going in some degree beyond what has been the provision for all students in any school. The teachers feel the spur, and are willing to respond to it; but they turn and ask the Colleges for the interpretation of their regulations. They ask the meaning of the word practical teaching, as contrasted with didactic teaching. Gentlemen who are so well in a position to appreciate the meaning of the word "*πραξις*", as contrasted with "*διδαξις*", could, one might suppose, interpret it for themselves. As far as possible, the students are to be active instead of passive recipients of the teaching, and are to learn to use their hands, instead of merely sitting on the benches to be told how to use them. Each school, we apprehend, must decide for itself how and to what extent this can be carried; and those schools in which the teaching is most effective are those which will best encounter the coming evolutionary changes in which the Darwinian theory of existence is likely to find fresh exemplification. When Mr. De Morgan pleads for "the better teaching and the more permanent retention of the true and necessary, to the repression of the as yet hypothetical and useless," he is pleading for the best future of medical teaching and of medicine. But the context is liable to be misunderstood. The "broad" facts of anatomy and physiology are fatal implements of blundering empiricism. We must venture to repeat the phrase which we hope to introduce as an ever present formula in the minds of all who practise or teach medicine or surgery. Every curative act of the physician or surgeon is a scientific experiment, involving considerations of great complexity, and liable to be completely misunderstood. The mere possession of broad facts and the recollection of verbal teachings will as often lead to error as to truth—to bad practice and to false conclusions, as to good. It is necessary to give the student the preliminary training in scientific principles and practice which shall enable him to practically apply the methods of observation and testing of which hitherto it has been the fashion to speak to him without teaching him how to employ them. In other words, the conditions of improvement in medical teaching, science, and practice are, that the practitioner shall emerge from the schools well acquainted with physical and chemical laws, and with the means of physical and chemical investigation, capable of determining by exact means the physiological conditions of his patient, and the changes introduced by disease, before he pretends to control them—of gauging accurately the changes which he believes himself able to introduce.

It is only in this way that we can clear medicine from the accumulated masses of erroneous and confused observations which encumber its "experience," and which, by their absolutely contradictory cha-

racter, discredit and weaken all our present efforts. When we succeed in turning out from our schools a generation of medical students capable of determining accurately the natural history of disease and recording fitly its phenomena, in the language and with the precision of science—a generation capable of determining by observations somewhat exact and trustworthy the therapeutic effect of medicines—we shall have effected something of what is demanded from us as medical teachers. At present our schools are far from giving such a training. We do not doubt that Mr. De Morgan concurs in this view: it is one which the new regulations as to "practical" teaching will in a measure subserve; and we could wish that he had given it on this occasion the emphasis of his vigorous support.

SMALL-POX continues to prevail in Lyons. The hæmorrhagic form of the disease has proved very fatal.

THE knighthood of the order of the iron crown of the third class in the empire of Austria has been conferred on Professor Sigmund of Vienna.

IT has been decided to erect a new Infirmary at Yeovil, at a cost of £1000. The land has already been purchased, and £570 promised towards the building.

AT the last meeting of the Stoke Board of Guardians, it was proposed and carried, with only one dissentient, that an Inspector of Vaccination should be appointed.

AT a meeting of the General Court of St. Thomas's Hospital, on Thursday, Mr. Sydney Jones was elected Surgeon to the hospital in place of Mr. Solly, resigned.

EARL DERBY has increased the extent of the site for the Stanley Hospital at Liverpool, so as to furnish ground for a convalescent establishment. The total value of his gift is estimated at about £20,000.

A GUARANTEE FUND of £500 is being raised by the Local Committee of the "Three Towns", Plymouth, Devonport, and Stonehouse, in order to make the reception of the British Medical Association in 1871 worthy of the counties of Devon and Cornwall.

WE have received from Dr. Whitmore a letter referring to our recent note on Small-pox and the Metropolitan Medical Officers of Health. It has arrived just as we are going to press, but we shall have the pleasure of inserting it next week.

OUR announcement of the lectures by Dr. Sibson which are to appear in the JOURNAL this year was incorrectly worded. They are the three Croonian Lectures on Aneurisms of the Aorta. Each lecture will for the purpose of publication be divided, so as to form a series of six.

DR. ESPIE of Falkirk, while on his way to visit a patient on Friday in last week, slipped and fell, breaking his right leg immediately above the ankle. An hour passed before assistance could be procured to remove him home; and in the meantime he himself set the fracture while remaining by the roadside.

THE tariff of medical fees, drawn up by the Council of the Shropshire Ethical Branch, and published in the JOURNAL of December 3rd, has just been translated, with slight omissions, in the *Lyon Médical* for January 8th. The prefatory and explanatory remarks which accompanied the table are reproduced.

THE Parliamentary Committee on the Contagious Diseases Acts are pursuing their inquiry with great diligence. The principal evidence taken up to this time has been as to the working of the Acts at Plymouth. The evidence attempting to show abuse, and the apprehension of modest women, has completely broken down, while the most conclusive proofs have been received of the admirable sanitary effects of the Acts.

WE heartily hope that Dr. Lankester will not be deterred from holding as many inquests at St. Pancras as he thinks fit. Such inquests have already rendered the very highest public services. Mr. Arrowsmith is much mistaken in intimating that it is the fear of inquests which gives the sick poor a horror of the Infirmary; it is the fear of ill-treatment, such as has been too often disclosed at such inquests.

AN attorney applied this week at Lambeth on the absurd charge that a poor woman at St. Thomas's Hospital, suffering from tumours, had her arm amputated against her will. The preposterous statement went for nothing; but we know something of the facts, and can but marvel at the ingratitude, folly, and audacity, which were shown in the proceedings.

THE Strand Board of Works have, on the motion of Dr. Joseph Rogers, taken the first steps towards erecting a mortuary house (in concert with the neighbouring parishes of Bloomsbury and St. Martin's-in-the-Fields), and of establishing a disinfecting apparatus as recommended by the medical officer. A mortuary house has, it is stated, been in existence for many years in the parish of St. Anne's, Westminster. This is a well-advised step, and one which it is to be hoped will be universally imitated.

We understand that the Dean of the Medical Faculty of University College has addressed a letter to the authorities of Middlesex Hospital Medical School, expressing regret at the indiscreet and premature statement which have appeared respecting the scheme of united action on the part of the schools in medical education, and disclaiming the statement of which complaint has been made in our columns. It was high time that something of the kind was done; for in the meantime the offence has been aggravated by a subsequent utterance.

SOME comments in the daily press have been excited by our observations on chloroform robberies. Nothing has been said, however, which suggests any rational explanation of the difficulties we expressed, unless we can consider as worth attention the suggestion that forcible grasping of the throat and closure of the air-passages will accelerate the effect of chloroform. They will undoubtedly produce rapid asphyxia and insensibility, but we apprehend they would retard the effect of chloroform inhalation, of which, indeed, they would supersede the necessity. We are still entirely sceptical, and so, we believe, is every one who knows anything about the matter; from this category we must, we fear, exclude most literary men, and the police altogether.

THE Devonshire Hospital and Buxton Bath Charity is one of the most useful institutions in the country. It received during the last year two hundred and twenty-eight in-patients, giving a daily average of eighty-four. The hospital is efficiently administered, under the general superintendence of a committee of which Dr. Robertson is chairman. The Annual Report testifies to a steadily increasing efficiency. In hospitals such as these, where the benefits of mineral springs and hot mineral baths and waters are afforded, services of a peculiar character are rendered, which are outside the pale of ordinary hospital relief, and deserve general recognition.

THE MIDDLESEX HOSPITAL.

A YOUNG woman, suffering from anæmia and deranged menstruation, when on her way to the Middlesex Hospital, travelled in an omnibus with another passenger who had an eruption on his face, which she at the time believed to be small-pox. A few days after her admission, she showed symptoms of fever, which was soon followed by a copious eruption of small-pox. She was at once sent by Dr. Robert King, the Resident Medical Officer, to the Hampstead temporary Hospital, and the sister, nurses, and patients, of the ward were vaccinated. Energetic steps will probably be taken to prevent the spread of the disease in the the Hospital. At Charing Cross Hospital, the visiting days have been cancelled for the present.

THE SMALL-POX EPIDEMIC IN ST. GEORGE'S HOSPITAL.

THERE have been, we believe, no fresh cases of Small-pox in this Hospital. One of the cases mentioned last week—a nurse of the Hospital—has since died.

SMALL-POX AND FEVER CARRIAGES.

WHEN, a few years since, Dr. Murchison, Mr. Hills, and Dr. H. Jeaffreson started a society for supplying ambulance carriages for the hospitals for patients suffering from contagious diseases, the one hospital which refused to receive such a vehicle as a gift was the Small-pox Hospital. Its managers considered that it was no part of their business how their patients came, or how they left. The less surprise need therefore now be felt that patients are found in omnibuses covered with marks of incipient or recent small-pox going to or coming from the Small-pox Hospital. One such case was recorded in the public journals this week, and another has just been brought to our knowledge. These ambulance carriages are stationed at the London, University, St. George's, Middlesex, St. Mary's, and the Fever Hospitals—the latter has two, one for fever and the other for small-pox. We believe they are very little used. One is peculiarly needed for every small-pox hospital. The Sanitary Act (1866) enjoined the establishment of proper fever and small-pox ambulances upon the metropolitan vestries. Some few of them have, we believe, complied with the injunction.

THE DEATH OF RICHARD HUTTON OF HARROW.

THE decease of this well known bone-setter is referred to with many expressions of grief and respect in the local press. Hutton was liable to the errors and mischievous blunders of his empirical craft, and we can refer to some lamentable consequences of his errors and a good deal of blundering mischief-making; but he was free from the grasping cupidity of the worst class of bone-setters, and could boast some very successful results, due chiefly to assiduous shampooing and passive movements of joints, which were "set" after being released from splints applied for fracture or dislocation of the extremities. He was one of the least mischievous of a very mischievous craft.

MERTHYR TYDFIL.

WE have not been able to find time and space for an analysis of the causes of preventable disease at Merthyr Tydfil, for which we possess some very instructive materials. We observe, however, that the death-rate for 1870 was 26.45; and that some blundering obstructiveness of the local authorities has allowed relapsing fever, small-pox, typhus, and scarlet fever to prevail, notwithstanding that they have made from time to time a considerable sanitary expenditure. *Principiis obsta* is a principle very difficult to instil into these gentlemen's minds; but they may be assured that, if they would steadily act upon it, and follow implicitly the course which their able sanitary officer, Mr. T. J. Dyke, is peculiarly capable of prescribing to them, they would effect a great saving in life, health, and money.

HALFPENNY WISDOM.

IF contiguity to sources of enlightenment could illuminate the intelligence of the Oxford Local Board, they would not at this moment cut so sorry a figure in attempting to postpone measures highly necessary for the health of the population under their charge, on the score of a false and pitiful economy. In 1854—the cholera-year—there were only seventeen more deaths than in the last year, 1870, when the excessive mortality has been due to preventable causes, especially fever. During the year 1856, after a health-officer had been temporarily appointed in a panic, the mortality was brought down to 227; last year, it was 421. The Privy Council have recently urgently pointed out to the Local Board that the excessive mortality is due to their neglect in not appointing a medical officer of health, and enforcing the provisions of the Sanitary Act of 1866. This, however, would involve a halfpenny rate; and to all arguments they oppose this halfpenny rate. This is halfpenny wise and hundreds-of-pounds-and-lives foolish. We submit to the con-

sciences of these gentlemen, as well as to their intelligence, whether their conduct be either wise or just. Is it not, rather, foolish and wicked? Will they consult Dr. Acland, in whose skill, good sense, and impartiality they will, we apprehend, put trust, as to the answer?

A CHEMIST'S CERTIFICATE OF INSANITY.

WHAT may the qualifications of a chemist be for giving a certificate of insanity? We venture to put this question to Mr. T. S. Cooper, a member of our own profession, we believe, and a chairman of justices, who decided the case of a man named George Murrell, charged with wilful damage to property. We find it stated in the police report of the *Kentish Observer* that, on the first occasion of the defendant being brought before the Bench, Mr. Austin suggested that he should be examined with a view to his mind being tested, as he thought he was not in his right senses. A certificate from Mr. Reeve, chemist, was put in, stating that he could find no traces of insanity in the prisoner. The Bench sentenced the prisoner to fourteen days' imprisonment; the Chairman (Mr. T. S. Cooper) remarking that they could have given him a much more severe sentence, had the damage been estimated at the proper figure. It is the first occasion on which we remember to have seen "a chemist" held to be an expert on the subject of insanity; and Mr. Cooper owes some explanation to the public and the profession of the grounds on which he received such a certificate. Such a case cannot be a precedent; but it calls for explanation.

HEALTH OF PARIS.

THE latest accounts from Paris are increasingly unfavourable as regards the health-condition of the city. In three successive weeks ending January 14th, the reported deaths were 3280, 3680, and 3982. We present below a contrast of the returns in detail for the last two weeks of the three with those of London for the same period, in continuation of the contrast for the first week given in the JOURNAL a fortnight ago.

	Week ending Jan. 7.		Week ending Jan. 14.	
	London.	Paris.	London.	Paris.
Small-pox ...	79	329	135	339
Measles ...	34	31	27	40
Scarlatina ...	112	13	77	11
Diphtheria ...	4	19	9	22
Whooping-cough ...	36	(?)	38	(?)
Croup ...	9	20	15	20
Typhus ...	10	251	10	301
Typhoid ...	18		17	
Simple continued fever ...	9		11	
Diarrhoea ...	19	151	17	143
Dysentery ...	2	52	1	46
Erysipelas ...	16	9	11	10
Phthisis ...	186	(?)	178	(?)
Bronchitis ...	319	343	377	457
Pneumonia ...	93	262	91	390
Heart-disease ...	102	(?)	109	(?)
Puerperal affections ...	11	11	9	11
All other causes ...	769	2189	764	2192
Total deaths ...	1828	3680	1896	3982

During the first two weeks of 1870, the deaths in Paris were 1106 and 998 respectively. The present estimated population in round numbers of the two cities is 3,200,000 for London and 2,000,000 for Paris. We cannot help thinking that there must be some mistake in the statement which has been made two or three times by the able correspondents of the *Daily News* in Paris, about the exclusion of the deaths in hospitals and other public institutions from the weekly bulletins. For we apprehend that the source whence the facts relating to the mortality of Paris are now quoted is the *Bulletin Hebdomadaire*, which prior to the siege used to be issued regularly from the *Mairie de Paris*. In conjunction with this weekly return there was likewise the *Bulletin de Statistique Municipale*, published monthly by the authority of the Prefect of the Seine. Now we find, on a comparison of these weekly and monthly returns, strong evidence to show that the former always included the deaths occurring in hospitals or other public institutions. Taking the three months March, April, and May, of last

year, it appears by the monthly reports that 15,644 deaths occurred in Paris, of which 11,472 took place *à domicile*, 4072 *aux hôpitaux et hospices*, 3 *aux prisons*, and 97 *à la Morgue*. Turning now to the weekly returns, we find that during the thirteen weeks from 26th February to 28th May, 15,931 deaths were returned in the weekly bulletins, which shows at once that, allowing for a slight want of conformity in the dates to which the two series of returns relate, the identity of the facts represented by both is complete. Had the deaths in public institutions been excluded from the weekly returns, the total for the thirteen weeks would necessarily have been less by at least 4000 than it actually was. Unless, therefore, there has been a change in the official practice since the siege began, we venture to doubt whether any important addition to the already shocking total of deaths, as officially reported week by week in Paris, is justifiable. A mortality implying the annual loss of one in every ten of the population does not need to be adventitiously raised.

ASYLUMS FOR INEBRIATES.

THE experiment tried at Binghampton on a large scale, and under apparently very favourable circumstances, has been watched with considerable interest here; and its alleged success has recently been frequently quoted in especial reference to proposed British legislation in the same direction. The following statement, on the respectable authority of the *Philadelphia Medical Times*, throws a new light on the subject.

"Some malignant star seems to have presided over the fortunes of this institution. Though designed to meet a pressing want of society, guided by the counsels and supported by the abundant bounties of a host of benevolent men, and aided by a munificent revenue from the State, it has failed—to all appearance, ignominiously failed. Twice it has been ravaged by fire, twice its head has been removed—in one, if not in both cases, for gross incompetence—and, though with a capacity for receiving hundreds of subjects, it was in operation several years before the whole number of admissions had reached one hundred."

MEDICAL ASPECTS OF THE WAR.

At the last meeting of the Middlesex Hospital Medical Society, Dr. John Murray read a paper on "Some of the Medical Aspects of the Franco-Prussian War." After referring in some detail to the medical organisation of the French and German armies, as compared with our own, and the lessons to be derived from their respective successes and failures in the present campaign, he proceeded to give an outline of the history and present state of the Geneva Convention and Red Cross Societies. From the unfavourable accounts given by competent observers at the seat of war, and from what he had himself observed while attached to one of the Aid Societies, he had come to the conclusion that radical changes were necessary to make the Geneva Convention equal to its great aims. To be really effective, the aid-societies' officials in the field must be placed with their material under the immediate orders of the authorities of one or other of the combatant armies, and not allowed to go hither and thither, whenever and wherever they listed. [A wholesome check on the authorities at the seat of war would be afforded by the withholding of supplies from home in case of any differences arising. Dr. Murray then proceeded shortly to touch upon his experiences at Sedan. He referred to the necessity of sending the wounded to a distance to prevent the terrible effects of overcrowding, and the ravages of pyæmia which occurred at Sedan, though carbolic acid was used to saturation. He was not, however, prepared to say that the excessive use of carbolic acid in the wet form did not produce toxic symptoms in numberless instances, and pave the way to an attack of the disease which it was intended to prevent. The popularity of marine lint (picked oakum) was, however, fully deserved. Conservative surgery proved, in most hands, a failure. Comparatively limited though his experience was, he was unable to perceive wherein lay the special knowledge constantly insisted on by military surgeons as being required in the treatment of gunshot-wounds. Common principles and common sense adequately represented any such specialism.]

HEALTH OF SOUTHPORT.

A CAREFUL and judicious statement from the medical men of Southport reaches us as we are going to press. It explains the generally good sanitary state of the town; and shows that the prevalence of small-pox at Crossness in the same union, to which we have referred, is due to neglect, over which it is alleged that the Southport people have had little control. The statement arrives too late for insertion this week, but shall appear next week. Meanwhile, however, we are happy to observe that our observations have had an excellent effect on the Guardians of the Ormskirk Union, in which Southport is comprised, and that we have assisted to free the fair town of Southport from the unpleasant contiguity of dangerously insanitary conditions.

CHANGES AT ST. THOMAS'S HOSPITAL.

OLD St. Thomas's men are of course much interested in the present and prospective changes and additions to the staff of St. Thomas's. To the vacancy in the staff of surgeons, Mr. Sydney Jones has naturally succeeded. Mr. John Croft thus becomes the senior assistant surgeon. Mr. Croft has served seven years as resident assistant-surgeon—a period of service which has involved a great deal of labour and confinement to the somewhat remote temporary site of the hospital, but one most valuable in the way of experience and training. Mr. Croft will now, of course, be freed from residence. A second assistant-surgeon will, we believe, soon be appointed, and a resident assistant-surgeon, but the duties of the latter will not include seeing out-patients.

A YEAR'S WORKING OF A PROVIDENT DISPENSARY.

WE are informed that at a meeting of the committee of the Royal Victoria Dispensary, at Northampton, on Friday, January 20th, the Secretary reported that the "Free Members", or those of the working classes who subscribed to the institution, had contributed during the year 1870 the sum of £1,881 9s. 4d. for the medical relief of themselves and families. According to the rules of the institution, a portion (about ten per cent.) of this had been applied towards the working expenses of the institution, and the net residue, after payment for drugs, etc., had been divided amongst the three medical officers, in the following proportions, regulated by the number of families attended by them respectively:—Dr. Barr, £649 16s. 3d.; Mr. Moxon, £527 10s. 6d.; Mr. Evans, £326 3s. 3d. The Secretary stated his belief that the sum so divided was larger than that paid to the medical officers of any similar institution in England. If the remuneration seems large, the work done was very great. The report showed that there had been much sickness in the town during the year; that the patients had required about sixty-two thousand attendances, of which nearly thirty-six thousand had been at their own homes; and that more than sixty-two thousand prescriptions had been made up at the Dispensary. The great success which has attended the working of this institution seems in a great measure to solve the problem as to the best means of securing to the working classes prompt and efficient medical aid, without any sacrifice of independence on their part, and without injustice to the medical gentlemen who attend them.

THE PUBLICATION OF PRESCRIPTIONS.

MR. JOSEPH INCE is commencing in the *Pharmaceutical Journal* a series of papers which we think open to some objection. For the information of young pharmacists he is publishing a series of prescriptions to be used by way of exercise; and illustrating, as we understand, the peculiarities of style of prescribing, caligraphy, and composition of living physicians and surgeons. The object is in many respects a good one. But it is worth considering how far this accords with proper reticence and courtesy, and with a sense of the legitimate purposes for which prescriptions are written. Physicians do not write prescriptions primarily for the instruction of schoolboys or for the criticism of their teachers in pharmacy. It is quite true that such documents, if preserved, will serve the purpose. But, before putting these documents, which have a distinctly private character, to a public use other than that for which they are

intended, the permission of their authors should, we think, be asked. It is not customary to publish a living man's correspondence without obtaining his leave, and the same rule will apply to his prescriptions. It may very easily happen that the particular prescriptions selected for publication and critical discussion, are those which the author would not choose to submit to that ordeal without certain qualifying explanations; and, as many of these are selected for their difficulty and eccentricity, this is particularly likely to happen. If it be too tedious and difficult to obtain the permission to which we refer as indispensable, then the signatures should be erased. They add nothing to the didactic value of the prescriptions as *pontes asinorum*, and, by gratifying a curiosity which may savour of impertinence, they violate rules which ought to be respected, and usually are so.

GLYCEROL OF PEPSINE.

VON WITTICH (Pflüger's *Archiv*), and after him Michael Foster (*Nature*), have ascertained that glycerine extracts of the mucous membrane of the stomach possess peptic powers more complete and reliable than those made at the present time; and that the amylopeptic ferments of the pancreas and salivary gland may be similarly extracted with advantage. This hint will not, we anticipate, be lost on physicians and pharmacists. The glycerine extracts are said to be at once more active, palatable, and stable.

HOMŒOPATHIC "MEDICINES."

WE find in the *Chemist and Druggist* the following quotation from a paper read at a homœopathic meeting at Liverpool. "We are frequently applied to by chemists for tubes, corks, labels, and unmedicated pilules, but *without medicines*; and, although we refuse to supply the unmedicated pilules, confectionary houses are now manufacturing them and selling them to chemists on a large scale." It is not to be supposed that the results are much interfered with, and indeed the substitution appears, as might be expected, to be only recognisable by the independent knowledge of the fact through accidental circumstances. The practical criticism afforded is unnecessary, but not devoid of instruction and amusement.

THE SUPPLY OF LYMPH.

THE following is from an accomplished practitioner, and deserves attention.

"Considering the panic that is now raging respecting small-pox and the difficulty in procuring lymph, I would beg to suggest that some more efficient mode of supply be adopted. Being solicited to vaccinate four families whom I attend, I endeavoured to procure lymph from the various local vaccinators, but was unable to obtain a single point or tube. The Privy Council were considerate enough to send me six points, but, as these were scarcely sufficient to vaccinate a score of patients, I applied at the Tottenham Court Road Chapel between 1 and 2 on Wednesday, and explained my wants, when I was not very graciously informed, 'I might charge my lancet or two or three points'. This not being sufficient for my purpose, I was then told I had better take a child, the fee being five shillings. The first one in rotation was assigned to me; and when I requested to be allowed to choose one that I could take into a respectable house, was told that 'I must not be fastidious, and that if I did not take that one I could leave it alone'—or words to that effect. Anything being preferable to such discourtesy, I engaged the woman, and drove round to my patients. Remembering how particular some patients are as regards the source whence the lymph is procured, and the unmerited disrepute into which vaccination has fallen from the injudicious selection of arms to vaccinate from, I think the practitioner should have the right of choosing, as also of remuneration."

ENTOZOA AND SEWAGE.

AT a largely attended meeting of the Metropolitan Association of Officers of Health held last Saturday, Dr. Cobbold read a paper in support of the views advocated by Dr. Letheby and himself respecting the probable spread of parasitism from sewage-irrigation. Adverting to the statements of Dr. Corfield, Mr. Holland, Mr. C. F. Gower, and others, he contended that there was no evidence to show that animals fed upon sewage-grown grass were uninfested, since symptoms of suf-

fering and disease only exhibited themselves in beasts which were very largely beset with entozoa. Only such persons as were familiar with the numerous forms and varieties of helminths could be capable of reporting accurately as to the condition of the flesh of animals thus reared and slaughtered for the purposes of food. His experiences had led him entirely to distrust the statements of veterinarians; and, as an instance of the ignorance which prevailed on this subject, Dr. Cobbold stated that he had repeatedly asked butchers and others if they were acquainted with measles in mutton and beef. In reply, these persons had invariably stated that not only had they never seen such things, but they never heard it hinted that such forms of entozoa existed in cattle. The paper, which was illustrated by numerous tables, drawings, and specimens of entozoa, led to an animated discussion, in which Mr. Hope, V.C., Mr. Alfred Smee, and Mr. Michael, took part. On the motion of Dr. Letheby, the further discussion of the subject was adjourned until the next meeting (Feb. 18th), when some additional details will be communicated.

CASTOR-OIL.

ACCORDING to the *Chemists' and Druggists' Advocate*, a story is told of an Irish girl who called on an apothecary for some castor-oil, to be mixed with something which should disguise its taste. On being asked if she liked soda-water, she replied in the affirmative, when the apothecary gave her a glass seasoned with the lemon and the oil. But she still lingered waiting, and presently asked for the oil again, when the man informed her that she had already taken it. "Oh, gracious!" she cried, "I wanted it for a man who is sick." Soda-water is not always as handy as it may be effective for the purpose, but castor-oil may, it is stated, be readily deprived of its terrors. Heat the bottle which contains it. Rinse the cup in boiling water, so as to make that also warm, and when the dose is poured out it will be almost as liquid as water. A few drops of brandy or of peppermint added to it will cover the odour, and the patient can swallow it with a large degree of comfort.

SCOTLAND.

THE EDINBURGH ROYAL HOSPITAL FOR SICK CHILDREN.

THE annual general meeting of this excellent institution was held on the 19th instant, Dr. J. Matthews Duncan in the chair. Since the foundation of this hospital, to which we have had occasion to allude in most favourable terms, the number of beds has increased from twenty in 1860 to seventy-two in 1870. Thirty-three of these beds were set apart in the new wards for the relief of fever-cases, an arrangement which has been of very great service, and markedly so during the recent epidemic of relapsing fever, but which, we fear, is not fully appreciated by the public of Edinburgh. During the past year, the number of children treated within the hospital was 470; the number treated at the dispensary was 4119; the number visited at their own homes was 758—making in all 5347. This made a total of 50,309 poor children treated at the hospital since its commencement in 1860. The hospital is literally free, sickness and poverty being alone the required terms of admission.

GLASGOW WESTERN HOSPITAL.

A MEETING was held on the 18th instant, of persons interested in the erection of an hospital in connection with the new University. Dr. Allen Thomson intimated that there were two desiderata to be fulfilled: first, the teaching of clinical surgery and medicine to students of the University; and second, provision for the treatment of the sick poor of this large city. The former could be satisfied by an hospital with a comparatively small number of beds, say 120 or 150; while this number would fall very short of the prospective demands of the city for hospital accommodation. The proposal, therefore, is to commence a building to meet the former requirement, and, of course, to a certain extent also the latter, but constructed so that additional accommodation might be provided without interfering with the architecture of the building.

In fact, the plans have been constructed with a view to the larger hospital, and it depends on the amount of money subscribed whether the building shall be completed according to these plans or a certain portion left out. The plan is on a modification of the block or pavilion system. A long block stretches down the centre, and from it jut out at right angles five smaller blocks. All are exposed to the free circulation of air. They will be three stories high. If the smaller hospital be determined on, the central block and the secondary one which juts out from its middle will be erected; if the larger, the four other secondary blocks will be added. It is for the public of Glasgow and its neighbourhood to decide whether an hospital shall be supplied sufficient to meet the increasing demand for accommodation for the sick poor, or one which can only do so very insufficiently. There can be no doubt as to the need for such an institution, and we feel little doubt that the public of Glasgow who have already shown much generosity, will be equal to this demand also. The University has already funds almost sufficient for the erection of the smaller hospital, but a large additional sum will be needed in case the larger is wanted, the estimates for which amount to about forty-five or fifty thousand pounds. One important part of the duty of the committee appointed at the meeting will be to determine how the new hospital may be supported. Probably the main difficulty will be how to raise the funds without coming into collision with the present Royal Infirmary. At the meeting several speakers strongly deprecated any feeling of rivalry between the two hospitals, and we think it is abundantly evident that there is ample work in the city for both. A single hospital of from 500 to 600 beds is not sufficient for a population of half a million. With a view to harmony of action in the collection of subscriptions, it was proposed some time ago to put the management of the new hospital under the directors of the present Infirmary, reserving to the University certain privileges for teaching purposes. These negotiations at the time were broken off; but, from the tone of some of the speakers at this meeting, it seems probable that a renewal of the negotiations will be attempted. Whether the subscriptions be collected by such a joint board or separately, certain circumstances seem to point to the source from which they ought to be derived. At present the Infirmary is supported almost entirely by the operative classes on the one hand, and the wealthy merchants on the other, each of those bearing an almost equal share. Almost no money is obtained from the class between these—the large, well-to-do middle-class—the lowest annual subscription being one guinea. This class might be attacked either by a special canvass or by what is technically called an "hospital Sunday." We feel assured that by one of these means it would be possible to obtain an accession of income sufficient to the maintenance of an hospital of 300 beds. Meantime we are glad to learn that the stones are beginning to be laid down for the erection of the hospital.

IRELAND.

A LADY MEDICAL STUDENT.

AT the recent preliminary examination in arts of the Apothecaries' Hall of Ireland, held on the 20th instant, a lady, Mrs. Leggatt, passed very creditably, her papers being of a high order of merit. This is the first instance in Ireland of a lady having enrolled herself as a medical student.

BARRINGTON'S HOSPITAL.

LIMERICK possesses a very valuable free hospital in the endowment of Sir Joseph Barrington, efficiently served by its medical staff, and owing much to the unremitting skill and care of Dr. Carey, the resident medical officer and secretary. It is not altogether creditable to the inhabitants that it receives but little support from them. The corporation has withdrawn its annual allowance of £400 without, it is stated, any sufficient reason; and few even of the employers whose "hands" benefit by the hospital, either as in- or out-patients, show any substantial sense of gratitude. We have been reading the annual report, which, while it testifies largely to the efficiency of the institution, speaks by no means so favourably for the liberality of the good citizens of Limerick.

THE FIRST SANITARY TRAIN FROM BERLIN.

AMONG the various publications which have appeared with reference to the treatment of the sick and wounded in the present war, one of the most interesting is a report made by Professor Virchow to the Aid-Society of Berlin,* in which he gives a graphic account of a journey which he made in October, in company with the first Sanitary Train fitted up by the Society for the removal of the sick and wounded from the hospitals at Metz, Pont-à-Mousson, and other places. He commences by referring to the defective character, up to a recent period, of the arrangements for conveying the wounded by railway. Men suffering even from severe wounds were brought to Berlin in ordinary passenger-carriages, without surgeons, and generally without nurses. It was not until the middle of September that a philanthropic Silesian gentleman, Herr Von Hoenicka, sent to Berlin a train carefully fitted up, and provided with surgeons and attendants, in which the wounded could be placed on beds, so as to enable even the most severe cases to be removed with safety. Aided by a vote of 5,000 thalers (nearly £750) from the Berlin Committee of the German Aid-Union, and through the representations made by Dr. Virchow to Herr Weishaupt, the director of railways, Herr von Hoenicka was enabled to procure a more complete supply of fittings and of carriages, and to equip a larger and better provided train.

On September 23rd, 3,000 thalers were voted by the Berlin Committee towards fitting up ten carriages for the conveyance of the wounded. The carriages were supplied with surgeons, attendants, food, medicines, etc.; and, on October 2nd, the arrangements had made such progress, that a train of fourteen carriages started, of which several had been voluntarily lent by the Stettin and Anhalt railways. The carriages were fitted up on the plan adopted in the American war. Litters, capable of being used in the battle-field, were suspended by India-rubber rings from the walls of the carriages, so as to serve as beds. In America, the carriages were large enough to contain each sixteen persons laid in two or three tiers, together with a surgeon and attendant, and a supply of food and medicines. In the Prussian carriages, however, there was room for only twelve patients in two tiers; and a central carriage was fitted up for the supply of the whole train. This was sufficient, in consequence of the facility of communication at any time between the carriages.

In South Germany, the Bavarian and Würtemberg sanitary trains had already become well known. While the Berlin train was being filled up, on September 28th, a Würtemberg train arrived in Berlin; and some useful hints were derived from its arrangements. The Würtemberg carriages were partly ordinary luggage-wagons; some of the litters were placed on the ground, while others were hung on simple girths. On the other hand, the train was in itself a perfect travelling hospital.

The train started from Berlin on October 2nd, accompanied by Professor Virchow. At its departure, the Minister of Commerce was present. He expressed his satisfaction with the arrangements, and promised to give an order for a further supply of carriages. Accordingly, on arriving at Mannheim, Professor Virchow found sixteen carriages waiting; these, however, were so imperfectly fitted, that he was obliged to leave them at Weissenburg to be fitted up as soon as possible by the evacuation-commission, and sent on.

In consequence of the hurry of the departure from Berlin, some troublesome circumstances occurred. The carriage containing the provisions and the latrines had to be left behind at Bitterfeld, on account of the axletree taking fire. Consequently, the other carriages were stowed with materials which they were not intended to contain. The cooking-carriage, also, was at one time in danger of its axletree taking fire, which was only prevented by setting free the flow of lubricating oil by means of surgeon's probes. Again, it was impossible to keep the lamps burning all night in the carriages; so that lanterns had to be used. These inconveniences are pointed out by Professor Virchow, in order to show the necessity of constant care, not only before starting, but during the journey; inasmuch as the success of the undertaking depends on the integrity of the whole train.

In his journey, Professor Virchow received much valuable assistance from the directors of the Hamburg railway, one of whom, Herr Hart-

mann, accompanied the train; as well as from the German officials at the French stations. Herr Weishaupt accompanied the train all the way; and Herr Dulon of the Görlitz railway, who was on duty at Pont-à-Mousson, placed a locomotive at Dr. Virchow's disposal; so that, on arriving at Novéant, he was able to have the carriages rearranged.

It was not until October 7th that the train arrived at Pont-à-Mousson. The delay in the journey, however, was not unprofitable. It gave Professor Virchow the opportunity of instructing and training his somewhat heterogeneous staff, and of putting in order the internal arrangements of the train. The utensils were distributed among the carriages; the beds and dressing materials were arranged; the staff had their duties assigned; and an inventory of all the articles was made. The attendants were exercised in bringing the beds into the carriages and placing them in their proper positions. The Sisters of Mercy arranged the linen and the bandages. There was also time for remedying some defects which had arisen from the train having been used for the conveyance of various luggage as well as for its special purpose. It contained a large quantity of woollen stuffs, spirits, tobacco, and refreshments, intended for the army before Metz, together with a supply of medicines for the field-ambulances, and 300 hundredweight of disinfecting powder. All this had to be stowed in the train in half a day; and at last six waggon-loads had to be left, in which were a large portion of the woollen stuffs, as well as many of the articles specially intended for the hospital-train. These latter had to be telegraphed for; and, through the friendly assistance of the aid-unions in Frankfurt, Mannheim, and Landau, were at last received. It was only when the train reached the German frontier, that it could be considered to be thoroughly supplied and equipped.

The employment of the same train for sanitary purposes and for the conveyance of provisions, etc., is, Professor Virchow observes, though apparently economical, in reality very inconvenient. In consequence of the carriages being filled with contributions of various kinds, it was not possible to complete the internal arrangements during the journey. On arriving at the end of the journey, the unloading and reloading were attended with much delay and difficulty. Some of the carriages had to go on to Ars-sur-Moselle to receive wounded, and there was scarcely time to fit them up.

Another difficulty lay in the uncertainty where the wounded were, especially the severely wounded who were capable of transport. On arriving, by direction of the Berlin Committee, at Weissenburg, Professor Virchow learned that Herr von Hoenicka's train and one from Würtemberg had again proceeded to Metz, and would certainly remove all the wounded. At the very time when Professor Virchow arrived at Weissenburg, Professor Heine of Innsbruck arrived from Nancy with an ambulance-train conveying the sick in their beds to Carlsruhe. It was then determined that the Berlin train should be used for the conveyance of patients suffering from fever and dysentery, if there should be no more wounded to be sent on. Dr. Virchow takes this opportunity of protesting against the doctrine of those who, while ready to afford voluntary aid, regard the wounded as its only object. Dysentery and typhus,* rheumatism and chest-diseases, are, he says, incurred in the service of the Fatherland, and not unfrequently disease is the result of long and arduous service; but even a slightly wounded man is by many regarded as a more worthy object of public interest than one who has internal disease. The aid-unions in Berlin had from the beginning taken another view. At the commencement of the war, the Uhlan's barracks at Moabit were fitted up for the reception of four hundred patients, including two hundred suffering from internal disease. Circumstances, however, caused a great preponderance of wounded, mostly severely wounded, inmates. As the barracks were now specially fitted for the care of the severely wounded, Professor Virchow had his train fitted with a special view to surgery. Everything, he says, was arranged as it would be in a good surgical hospital ward.

He also directs attention to the fact, that a private society, supported mostly by the voluntary aid of fathers and mothers of families, cannot employ its ambulances for infectious diseases. The evils arising from the conveyance of such diseases into families altogether outweigh the advantages derived from the services of the attendants. Whenever it is necessary for a help-union to undertake the care of persons suffering from contagious disease, it is at least a duty to select the staff carefully, avoiding those who have family duties to perform.

At Saarburg, where he arrived on October 5th, Dr. Virchow bought bread, butter, and potatoes, as he learnt that the price of these arti-

* "Der erste Sanitätszug des Berliner Hilfs-Vereins für die deutschen Armeen im Felde." Bericht des Professor Dr. Virchow an den Vereins-Vorstand. Berlin: 1870

* The term "typhus" as employed by German writers, includes both our "typhus" and "typhoid" or "enteric" fevers. It is the latter form—*typhus abdominalis* of the Germans—that is referred to here.

cles was likely to be high at the seat of war. In consultation with Herr Weishaupt, who had visited Strasburg, it was decided that a personal inquiry into the state of affairs at Metz was desirable, the surgeons at which place had been notified from Berlin of Dr. Virchow's journey. After a short delay at Nancy, where large ambulances for fever and dysentery were established, Professor Virchow went on with Herr Dulon and Professor Hüter of Greifswald to Pont-à-Mousson. Most of the patients there were suffering from internal disease. The large rooms of the seminary were full of them; and an endless host of them, newly arrived, poured into the church, where they were laid on sacks and mattresses of straw, even round the altar and between the pillars; and many an anxious look was cast around for a vacant place. There were some severely wounded men in the lazareths; but they were mostly old cases, and it was a difficult question to determine whether they should be removed or left. It was decided to remove some of them, especially most of the officers.

On October 6th, Professor Virchow visited, in company with Professors Hüter and Mosler, and Herr Quistorp of Stettin, the lazareths at Corny, Ars-sur-Moselle, and Gorze, returning to Pont-à-Mousson in the evening. At Gorze—the scene of the active zeal of Professor von Langenbeck—most of the wounded had been sent away. The lazareths, in themselves not unfavourably situated, were filled with cases of dysentery and enteric fever; and there was reason, from the occurrence of some cases of exanthematous typhus, to fear a spread of this disease. The prevailing form of typhus, however, was the abdominal; the occurrence of which was easily to be explained in a place which, though spacious, was hemmed in in a narrow valley, besides being filthy and offensive. At Novéant, which was visited in the return journey, Herr von Hoenicka's and the Würtemberg sanitary trains had just completed their lading. The capacious barracks and hospital-tents near the railway-station had for the most part been emptied of their wounded inmates. The patients ill with typhus and dysentery lay in the wooden barracks, which, though large, were relatively ill-ventilated, and were decidedly overcrowded. The bedsteads rested on rough boards placed on the ground; the patients were well provided with mattresses and woollen coverings, and were carefully attended to by a large staff of surgeons and nurses.

[To be continued.]

NOTES OF THE WAR.

THE number of beds placed by private individuals at the disposal of the wounded in Paris amounts, says the *Lyon Médicale*, to nearly 26,000—not including beds for convalescents, of which a number have been offered in answer to an appeal from the Government.

THE WOUNDED IN SAVOY.

SINCE the end of October, a number of wounded soldiers have been sent to the civil ambulances in Savoy, especially at Aix, Chambéry, and Annecy. One hundred have been received at Aix; those being selected in whose cases the thermal waters were likely to be of service—cases, *e. g.* of false ankylosis, retraction of tendons, etc. The medical committee have decided to collect records of the cases which have a scientific or practical interest. The hospital expenses are met by a grant from the State, supplemented by subscriptions raised by a local committee. There have been many cases of small-pox in the garrison; but, revaccination having been generally practised, the number has diminished to one-tenth of what it was in November.

THE WOUNDED AT NUIITS.

THE *Lyon Médical* publishes an account of the proceedings of the third Lyons ambulance, of which Dr. Christôt is the chief surgeon. The medical service of the French army, though sufficient for the requirements of the troops during their march, was quite inadequate for the treatment of a large number of wounded—a fact which became very apparent after the fight at Nuits. The regimental surgeons multiplied their efforts on the day of the battle to give as much aid to the wounded as possible; but, being obliged to fall back with the troops, they were compelled to leave many on the field of battle and elsewhere. In consequence of there being no ambulance, properly so called, attached to the division engaged, the services of the army-surgeons were supplemented by the inhabitants of Nuits, who were very imperfectly prepared for the duty; consequently, it was not till thirty-six hours after the battle that several of the wounded were removed. The responsibility of this state of affairs rests with those who not only fail in their duty of organising the army medical service, but throw obstacles in the way of the formation of volunteer ambulances. The third Lyons ambulance arrived on the third day after the battle, and took charge of 250

wounded who were lodged in the town. Those in the hospital and in the two large ambulances were under the care of the medical men of the town. The cases were all severe; the slightly wounded having been removed soon after the battle to Beaune, Chagny, Châlon, and Lyons. The wounds were for the most part frightful; gun-shot wounds of the thigh with comminuted fracture abounded; there were also many cases of penetrating wounds of the chest, and some of the abdomen. A rather large number of amputations were performed by Drs. Christôt and Bernheim; the results were not favourable, in consequence of the length of time during which the patients had been left exposed.

THE "AMBULANCE ANGLAISE" IN PARIS.

WE have received the subjoined from our correspondent in Paris, under date January 18th, 1871.

It is a remarkable fact that, while the humanity and generosity of most neutral nations has been *nationally* represented during the past four months of the siege of Paris, in a more or less conspicuous manner, there existed no publicly apparent manifestation of English sympathy, until a few days ago, when an "Ambulance Anglaise" was opened, with fifty beds, in the Rue d'Aguesseau, having its attached service of *ambulances volantes* for the exigencies of the battle-field. This establishment, which has secured an efficient professional and general staff, and is in all other respects admirably equipped, is at the sole expense of an English philanthropist, Mr. Richard Wallace, a Parisian resident, who has rendered his name for ever great and honourable in the history of the siege, by the many forms in which he has munificently mitigated its cruelties, by alleviating the sufferings of French and English, of soldiers and civilians. The absence of an English, alongside of the American, Italian, Belgian, and other nationally named ambulances, has probably arisen from the desertion of Paris by the entire English diplomatic body, the English clergy of all denominations, and a majority of the resident medical and other usual participators in Anglo-Parisian life. Thousands of English no doubt remain here still; but they are mostly persons who, for the present at least, are in very difficult pecuniary circumstances, or possessed of only a moderate competence. It is important, however, to state in connexion with the facts now mentioned, that the sick and wounded soldiers of Paris have not been without substantial marks of English sympathy since the investment. Colonel Loyd Lindsay was allowed some time ago to enter Paris as the bearer of twenty thousand pounds sterling, one half of a sum collected in England for the French and Prussian sick and wounded. The manner in which this money was distributed gave umbrage to some who had taken an active and efficient part in establishing voluntary ambulances; while it failed to attract public attention in such a way as to counteract an unfortunately prevalent opinion that, at least in respect of the present war, all the sympathies of England are with the relentless enemies of France. Mr. Wallace, too, has from the first been a very large contributor to the Parisian ambulances through the Société Internationale; and has likewise maintained the ambulance specially attached to General Vinoy's *corps d'armée*, upon which institution he has expended 300,000 francs (£12,000). Mr. Wallace, moreover, simultaneously with his opening the "Ambulance Anglaise" in the Rue d'Aguesseau, gave a donation of 25,000 francs (£1,000) to the Comité Evangélique—that is to say, to the Protestant auxiliary society (under the presidency of General Chabaud-Latour) for the relief of sick and wounded soldiers, by which the ambulance of the Collège-Chaptal, with its 350 beds, and other smaller ambulances, making up the total to nearly 1,000 beds, are conducted in a manner quite remarkable, both in respect of success in treatment and financial economy. The "Ambulance Anglaise" has been naturally and judiciously placed by Mr. Wallace under the management of the Comité Evangélique—a name, be it remarked, which in the present case has no sectarian signification. The surgical staff of the "Ambulance Anglaise" consists of three English medical men who have remained in Paris during the siege; viz.: Dr. Shrimpton (an able surgeon of long experience in the French army), Dr. Rose Cormack, and Dr. Herbert. The beds in the Rue d'Aguesseau are apportioned among these gentlemen; and the field-service is entrusted to Dr. Cormack, who has acquired experience in that important department from having already served in many engagements under the walls of Paris. Along with his new service in the English military hospital of the Rue d'Aguesseau, Dr. Cormack retains his hospital, Rue Demours, at the Ternes. Dr. Shrimpton, too, will probably continue his service at the International Ambulance, Grand Hôtel. The "Ambulance Anglaise" (which probably is beyond reach of the batteries by which Paris has as yet been bombarded) will do good service in many ways. It will show, moreover, more palpably than has hitherto been apparent, that there are English hearts which tenderly feel for France in her present heroic struggle for national existence.

MEDICAL TEACHERS' ASSOCIATION.

A MEETING of this Association was held on January 20th; CAMPBELL DE MORGAN, Esq., F.R.S., President, in the chair.

The minutes of the preceding meeting having been read and confirmed, the President read an address, which is published at page 84.

The PRESIDENT added that it was open to any gentleman to take up any one of the subjects referred to in his address; but perhaps it would be best to discuss, first, the question of the physiological courses.

Dr. GREENHOW proposed that the cordial thanks of the meeting should be tendered to their President for his very excellent address. —The motion was seconded by Mr. WOOD, and carried unanimously.

Dr. SALTER asked whether any authoritative interpretation had been received as to the term "practical physiology", used by the College of Surgeons in their recent resolutions. The term, as it stood, might mean that things were to be practically done by the student himself, or that the physiology taught was to have a practical bearing. —The PRESIDENT, in reply, stated that he was informed that by the term practical physiology was meant histology, chemistry, and physics. —Mr. POWER mentioned a number of operations which he thought might be included under the head of practical physiology. Still he thought the College of Surgeons ought to define more clearly which of these operations they would require each student to perform. —Mr. WOOD approved of the President's views as to having large public medical schools. In anatomy and physiology there was, he said, a large field, and there was danger of the professor teaching over the heads of those whom he was addressing. Men in actual practice he considered better qualified to teach than purely scientific men. There was a point which he would like to see ventilated, and that was, what was the best time of year when subjects could be had for anatomical purposes. He found a difficulty in the summer months, partly from irregularity of supply, and partly from the shutting up of various sources. In the face of these new regulations of the College of Surgeons, it became an important question at what time of the year would the best supply be obtainable. His own opinion was, about the end of winter or the commencement of the summer session. —Mr. CHARLES HAWKINS thought the best time was April, and perhaps a portion of May. Winter would not do. He would like to know from the teachers how long a time they would require in order to teach the subjects prescribed by the College of Surgeons. Would six weeks be sufficient? —The PRESIDENT said it would not take a very long time. —Mr. WOOD said that depended upon what the College really required. If they required each student to go through every operation, at least half as many bodies would be required as there were medical students in any one year. With the present state of supply, such a thing was impossible. Again, if about April was the best time, the students must stay in town; and even if they should stay, they might yet be doing nothing for want of subjects. The question was attended with many difficulties. —Dr. GREENHOW was of opinion that they needed further information, and agreed with Mr. Power that the College of Surgeons should be asked to define what they meant by "practical physiology" and "practical surgery". The new regulations implying new subjects of tuition, would bring additional labour to the teachers, and entail extra expense for instruments and appliances. In this case, were they to do it for the old school-fees? He moved— "That the Secretary be requested to inquire from the College of Surgeons what is meant by the terms practical physiology and practical surgery in the regulations recently issued, and also what will be required of students who produce certificates of having attended these courses; and that he report the results of such inquiry to the adjourned meeting of the Association." —Dr. SALTER seconded the motion. To his own mind, it appeared that the College meant nothing more than that physiology was to be taught as it ought to be taught—that is, demonstratively. He thought, however, that inquiry should be made. —Mr. RIVINGTON hoped they would go a step further, and utilise the information at once by means of a Committee. The question of fees would have to be settled by the various schools in concert. A kind of report drawn up and sent round would be well calculated, he thought, to produce the necessary unity of action. —Dr. WILLIAMSON would suggest that the word "practical" did convey a definite meaning, namely, that operations which had hitherto been done only by the teacher, should be performed more or less fully by the students themselves. He thought, however, it would be of great service to teachers if the College would give some definite outline, as was done by the London University, and state what operations they would expect the student to perform. The present change must, he thought, lead to the raising of fees; he could not see how that could be avoided. —Dr. SILVER asked whether one year should be given to the theoretical,

and the second to the practical course, or whether the two should be dovetailed into each other. He thought they must have one course overlapping the other if the student was in any way to be benefited. —After some further discussion, the motion was put and carried, and the following committee appointed: Mr. Power, Dr. Williamson, Dr. Greenhow, Dr. Silver, Mr. Wood, Dr. Salter, and Mr. Rivington. It was then agreed that the Committee should summon a meeting at as early a period as possible, probably in about six weeks' time. The meeting was then adjourned.

HYDRATE OF CHLORAL.

MEDICAL men who have had experience of the utility of chloral will doubtless have felt some embarrassment in the use of this important agent, owing to the reports that have been floating about for some time as to the variable quality of the preparation. Though Liebreich's name is prominently identified with the preparation, and though it is made under his direction by some manufacturers, there are besides these several other makers whose products are brought into the market abundantly. For some time past it has been stated that these vary in quality; and, moreover, it has been stated that the alcoholate of chloral—a preparation quite different from Liebreich's hydrate of chloral—has been largely manufactured and sold for medicinal use. It is stated also that this compound of chloral with alcohol is a stimulant instead of an hypnotic; and it is at the same time well known that there have been discrepant results obtained in using what was supposed to be chloral hydrate. These rumours, which are sufficiently calculated to cause uneasiness, have lately assumed a more definite form; and we observe in a recent number of the *Pharmaceutical Journal* a paper on which the results of analyses of several samples of the chloral preparation of various makers are stated. From those results it would appear that there are very considerable differences between the samples examined as representing different makers—so great, in fact, that, on the assumption that all the samples were hydrate of chloral, several of them would be inferior to that made under Liebreich's directions to the extent of twenty per cent. Considering the importance of this question, we purpose making some inquiry into the quality and composition of the various chloral preparations now in the market and publishing the results, so as to afford our readers all requisite information, and enable them to determine what they can use with confidence.

SPECIAL CORRESPONDENCE.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

The Epidemic of Small-pox.—Mortality in relation to Vaccination.—Poor-law Medical Officers as Vaccinators.—Sudden Death after Vaccination, but unconnected with it.—Hospital Sunday: the Distribution of the Collection.

THE Small-pox Epidemic is still extending in this town, the deaths having risen to 50 in one week. By the courtesy of Dr. Collis Anderson, the medical officer in charge of the temporary parochial small-pox hospital, we had an opportunity of going through the wards, where we found sixty-two cases of variola, presenting almost every gradation, from the mildest modified case to the severest confluent form. Most of the patients were adults—none under two years. In all the severe cases, the typical marks of efficient vaccination were wanting. One good cicatrix was the rule; some had a second indistinct mark, but not one presented the appearances now held to be essential, namely, four good-sized foveated cicatrices, with the exception of one child four years of age, on whose arm were five cicatrices, and in whom the attack was so slight as to resemble chicken-pox more than small-pox. Dr. Anderson informed us that the disease was prevailing extensively in his district, and that he had from twelve to fifteen new cases a week. He could not remember a single fatal or severely confluent case in which there were undoubted signs of thorough vaccination. These results, so far as they go, corroborate the views now entertained as to the comparative value of imperfect and thorough vaccination. As the epidemic progresses, the careful records which are kept will doubtless give more definite and reliable information on this point. It is the practice in this hospital to smear the face of the patient with a paste composed of oxide of zinc, glycerine, and carbolic acid. This is supposed to prevent pitting, but sufficient time has scarcely elapsed to test its efficacy. Our own experience is in favour of the freest possible exposure of the entire surface of the body to the air.

In the out-township of West Derby, Dr. Flynn, one of the guardians, states that "quite one hundred cases of small-pox had passed through the Union Hospital in the last three months, and not one in ten had been vaccinated"; and that "of the adults in Everton district, not one in five had been vaccinated". We presume this latter statement must refer to revaccination. To meet the emergency, Dr. Flynn advocates, during the epidemic, a return to the old system under which all the district medical officers were vaccinators, instead of the recently adopted regulations of the Privy Council, by which the vaccination of the Union is concentrated and placed in the hands of two or three vaccinators. The clerk pointed out that this proposal would be illegal, so that the present arrangement will remain in force. It is scarcely probable that the medical authorities in Whitehall would sanction the proposed change, inasmuch as they have satisfied themselves, by long and extended experience and observation, that nothing so greatly impedes public vaccination as too much subdivision.

A somewhat strange and mysterious case has recently occurred in the Borough Coroner's Court. Two boys in the same family, aged six and three years, in good health, were both vaccinated together on a Wednesday. The elder boy was suffering from hoarseness; and the same night, at bed-time, the mother gave each of them a teaspoonful of paregoric and spirit of nitre. At midnight, the elder boy became seriously ill, vomiting and purging violently. Doses of whiskey and brandy were given to him. The younger boy became affected in a similar way an hour afterwards, and was treated in a like manner. Next morning, a medical man was called in and prescribed; but the elder boy died in the afternoon, and the younger one in the evening. The medical evidence threw no light upon the nature of the cases. The medical attendant made a *post mortem* examination, assisted by a second practitioner; but neither of them could assign any cause of death, except natural causes. The stomach in each case was healthy and free from indications of irritant poisoning. It is perhaps somewhat to be regretted that a complete analysis of the internal organs and their contents by an analytical chemist was not ordered by the coroner. There appears to have been no ground whatever for supposing that vaccination had any connection with the deaths, although it is not improbable that its opponents will make capital out of the case.

The collections for the first Hospital Sunday in Liverpool were made on the 8th instant in about three-fourths of the entire number of places of worship in the Borough and outskirts. The sums already published amount to nearly £4000, and there remain some thirty or forty churches and chapels from which no return has yet been received. On the whole, the movement may be regarded as a success, although not so much so as was anticipated, owing to special difficulties attending a first attempt, most of which may be overcome in future years. Nearly all our principal medical charities are in financial difficulties, owing in no small degree to the needless multiplication of minor special hospitals and dispensaries, the practical benefit and utility of which either to the public or the profession are very doubtful. Amongst other incongruities arising out of this system, we have hospitals without beds, and in which beds can scarcely be required, such as the Dental Hospital, and a Hospital for Skin-Diseases, which professedly affords relief to out-patients only. This last-named charity has followed the questionable precedent of a metropolitan institution of a kindred nature by giving superior advantages and greater comforts to a certain class of applicants who are willing to pay a fee for the advantages offered, thus at once vitiating the benevolent character of the institution, and encouraging a practice already far too prevalent here as elsewhere; namely, the abuse of gratuitous medical attendance by persons who are quite able to pay for themselves. Possibly an indirectly beneficial effect of the Hospital Sunday movement may result in the correction of these irregularities, by the attention which will necessarily be given to them in the discussions of the Committee on the relative claims and usefulness of the medical charities which are to participate in the proceeds of the collections.

EDINBURGH.

[FROM A CORRESPONDENT.]

The Purchase of the old Edinburgh Infirmary Buildings.

IT will be within recollection that a public announcement was recently made of the sale of the Infirmary buildings and ground to the University for a sum of about £21,000, much to the satisfaction, it was supposed, of everyone. The extension of the University buildings has now become an urgent necessity. The recently endowed professorships are as yet without a local habitation, and the accommodation of some of the old class-rooms has become inadequate. It has also been long a matter of surprise and regret that this great metropolitan university has no hall of its own in which its ceremonials might take place. It was

therefore a matter of congratulation when the University secured, within a stone's cast of its door, a large extent of ground which would give room for all the required additional buildings, and at the same time leave something to spare for those out-door amenities which tradition has associated with our notions of an academy. The disturber of these pleasant dreams has appeared in the person of Mr. Duncan MacLaren, one of the members of Parliament for the city, and a well-known, though not over popular, economist. He contended that the Infirmary buildings and ground would have brought from £30,000 to £35,000 at a public sale. He has even procured an interdict against the sale to the University; and at a meeting of the Infirmary Court of Contributors, held on Monday, he brought forward a motion in effect to cancel the transaction. In the interests of the funds of the Infirmary he did this, and he and six others were prepared to give £30,000 for the property if it were exposed at a public sale. On a division, Mr. MacLaren's motion was negatived by a majority of 159 to 32. The substantive motion carried was to the effect that the new Board of Managers should carefully consider the whole question, the transaction having been effected by their predecessors who left office at the end of the year, and that they should take any steps that they may think proper. In the meanwhile, the matter rests here.

ASSOCIATION INTELLIGENCE.

NORTH WALES BRANCH.

THE next intermediate general meeting of the above Branch will be held at the Belvoir Hotel, Rhyl, on Tuesday, February 14th. Members of the Council of the Branch are requested to meet at 12.30 P.M. The general meeting will commence at 1 P.M.: T. F. EDWARDS, Esq., Denbigh, President.

Dinner will be provided at the end of the meeting to suit members leaving by early trains.

Gentlemen who intend to be present, to communicate papers or cases, and purpose dining, will please to send early notice to

D. KENT JONES, *Honorary Secretary*.

Beaumaris, January 25th, 1871.

FORMATION OF A BRANCH FOR SOUTH WALES AND MONMOUTHSHIRE.

A MEETING of the leading members of the medical profession in this part of the country was held at the New Hospital, Swansea, on Wednesday, January 18th, for the purpose of establishing a Branch of the British Medical Association for Monmouthshire and South Wales.

The following members of the profession were present:—George Padley, L.R.C.P., J. Paddon, M.B., A. Davies, Esq., E. Davies, Esq., J. Williams, M.D., T. D. Griffiths, M.B., Jabez Thomas, Esq., Jas. G. Hall, Esq., G. Mowat, Esq., H. T. Sylvester, M.D., D. H. Thomas, Esq., O. G. Williams, Esq., Jas. Rogers, Esq., J. A. Rawlings, Esq. (all of Swansea); W. Taylor, M.D., Cardiff; Alfred Sheen, M.D., etc., Cardiff; J. Russell, Esq., Neath; Pearson R. Cresswell, Esq., Dowlais; Gwynne Harries, M.D., Pembroke Dock; J. Wathen, Esq., Fishguard; J. L. Thomas, Esq., St. Clears; F. M. Russell, Esq., Cwmavon; M. J. Franco, Esq., Crickhowell; Henry Davies, Esq., Morriston; G. Griffiths, Esq., Pontardawe; Maurice G. Evans, M.D., Narberth; J. W. Norton, M.D., Llanelly; T. H. Redwood, Esq., Rhymney; Evan Jones, Esq., Aberdare; J. Probert, Esq., Merthyr; G. Riding, M.D., Neath; R. W. Thomas, Esq., Neath; B. Thomas, Esq., Llanelly.

Dr. PADLEY was called to the chair, and briefly opened the business of the meeting by expressing his satisfaction that so many gentlemen had come together from different parts of the district to aid in the inauguration of the proposed new Branch, and bidding them a cordial welcome to the town.

On the motion of Mr. A. DAVIES, it was resolved that a Branch should be established as proposed, and that it be called "The South Wales and Monmouthshire Branch of the British Medical Association." By a second resolution, it was agreed that the objects of the Branch should be "the promotion of medical science and the maintenance of the honour and interests of the medical profession, by encouraging friendly intercourse among its members, by the reading of short papers, and the discussion of subjects generally interesting to the profession at its meetings".

Dr. TAYLOR moved the following resolution with respect to the admission of members—"That any qualified medical practitioner, not disqualified by any bye-law, who shall be recommended as eligible by

any three members, shall be admitted a member at any time by the Council of this Branch."—Mr. J. G. HALL seconded the motion.—Considerable discussion arose upon this point. Eventually an amendment proposed by Dr. GWYNNE HARRIES and modified by Dr. PADDON was carried unanimously. It was to the effect that a circular containing the name and address of any proposed new member, with the names of his nominators, etc., should be circulated among the members, at least fourteen clear days before the meeting at which the election was to take place. If no notice of objection were lodged with the secretary within seven days, the person nominated should be considered duly elected. If a notice of objection were lodged with the secretary within seven days, notice should be given of the fact to those who had signed the nomination-paper. An election would then take place, one black ball in five excluding the candidate.

Other resolutions were then carried, providing that the management of the Branch should be vested in a President, Council, and two Secretaries; the President and Secretaries to be chosen at each annual meeting, and the Council to consist of twelve members, in addition to the *ex officio*—one-third to retire annually by rotation, but to be eligible for re-election. It was also resolved that the annual meeting be held in June or July, in some convenient town in the district, to be fixed by the Council; and that the ordinary meetings should be for the discussion of any matters relating to medical science or the well-being of the profession.

On the motion of Dr. GWYNNE HARRIES, seconded by Mr. JOHN RUSSELL, Dr. Padley was unanimously elected President of the Branch for the current year.—Dr. PADLEY returned thanks for the honour which had been done him, and said it would give him great pleasure to do his best to promote the prosperity of the Branch.

Mr. Andrew Davies of Swansea, and Dr. Alfred Sheen of Cardiff, were appointed Secretaries for the ensuing year.

Some other minor arrangements were made, and the meeting then closed.

Dinner.—In the evening, the members of the newly-established Branch dined together at the Mackworth Arms. Dr. Padley, the President of the Branch, presided, the vice-chair being occupied by Mr. Andrew Davies. At the close of the dinner, the usual loyal and patriotic toasts were given from the chair and drunk with due enthusiasm.

The PRESIDENT then gave the toast of the evening—"Success and prosperity to the South Wales and Monmouthshire Branch of the British Medical Association." It would be superfluous for him to urge the claims of the Association upon the favourable consideration of the members of the profession. One of the rules which had been passed at the morning meeting described its objects as being "the promotion of medical science, the maintenance of the honour and dignity of the profession, and the encouragement of friendly intercourse among its members"; and, this being so, he was sure they would all cordially drink to its success. They were all aware of the very important services which the British Medical Association had rendered to the profession, both in its scientific, social, and political aspects, and he hoped that the Branch Association just established would prove a vigorous offshoot from the parent stem. Social gatherings such as the present, and the friendly intercourse which would be promoted thereby, might be looked upon as the flowers and blossoms of the Branch; while the advancement of Medical Science, which he trusted would result from their meetings, might be regarded as its fruits. He thought that they in South Wales and Monmouthshire must take some shame to themselves that they had been so long content to remain without such an Association; but, thanks to the judgment, energy, and perseverance, of their good friend the Vice-Chairman [*cheers*], it was now fairly established, the machinery was set agoing, and he hoped it would work efficiently to its destined end. If there should now and then be a little creaking of some of the wheels, he hoped they would all do their best to pour oil on the jarring and discordant parts, so that all might go smoothly once again. [*Cheers.*]

Mr. P. R. CRESSWELL then proposed the health of the Vice-Chairman, Mr. Andrew Davies, to whose efforts the establishment of the Association under such happy auspices was mainly due. In no part of the country was the want of such an Association felt more than in the mining and ironworks districts of Monmouthshire and South Wales; and he felt sure that before twelve months had passed the beneficial influence of the Branch now formed would be plainly felt.

Mr. A. DAVIES said that it was a matter of great pleasure to him to see so many members of the profession gathered together from different parts of South Wales and Monmouthshire to inaugurate the new—or rather the newly resuscitated—Branch. He took an interest in the original Branch previously to its premature decline, and had often regretted that it had been allowed to die away. But, judging from what he had seen and heard that day, as well as the communications he had

received from various parts of the country, he was more than satisfied with the prospects of success which had attended the attempt which had now at last been made to resuscitate the Branch; and the fact that in the middle of January—when travelling was by no means pleasant, and when the members of the profession generally had much to do—so large a number had come to Swansea to be present at the inaugural meeting, showed, he thought, that it would not be a mere spasmodic revival, but that the Branch would flourish long, and grow vigorously, and become a lusty limb of the parent tree. Having had fifteen years' professional experience in the mining districts of Glamorganshire, he could fully corroborate what Mr. Cresswell had said as to the necessity which existed for such an Association. He hoped the present was the first of many meetings which would be held, and that the result of their combined action would be to promote the best interests of the profession to which they were all proud to belong. [*Cheers.*]

The healths of the President, the Secretaries, the Visitors, etc., were afterwards proposed and responded to, and the proceedings then terminated.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL AND CLINICAL SECTION.

THE third meeting of the session was held on Friday, December 30th. Present: ALFRED BAKER, Esq., in the Chair, and thirty-four members and visitors.

Dr. G. F. BODINGTON exhibited some Softened Bones, consisting of a clavicle, a radius, and two ribs, from a case of insanity. The specimens had been lent to Dr. Bodington by Dr. Clouston, by whom they had been removed from the body of a female aged 77. The patient had been admitted into the Carlisle Asylum thirteen years before death, and had been subject to fits of curious irregular agitation of the muscles, with screaming and partial unconsciousness. For the last two years of life she had been hemiplegic. A few months before death, the right clavicle and right radius were noticed to be bent. On *post mortem* examination, the ribs on the right side were seen to be bent inwards, and were small, and so fragile as to be removed entire only with great difficulty. The long bones and bones of the skull were all so soft as to be easily cut with a knife. Some experiments performed by Dr. Clouston showed that the ribs had only one-tenth of the normal strength. After referring to other features in the case, and to the medico-legal aspects of this softened or fragile condition of the bones in the insane, Dr. Bodington remarked that it was a curious coincidence, if nothing more, that softening of bones was most common in motor paralytic disorders connected with sclerosis of the great nervous centres from increase of connective tissue—*e.g.*, general paresis of the insane, paralysis agitans, and locomotor ataxy.

Mr. VINCENT JACKSON exhibited photographs of a case of quick-growing Subfascial Cancer of the upper third of the left leg of a man aged 26. The noticed duration was three months. The tumour presented in a marked degree what may be called soft cancer-fluctuation. Operative measures had been declined at present.

Mr. BENNETT MAY exhibited the Pelvic Viscera of a girl whose death ensued after operation for Occlusion of the Vagina. The patient, C. J., aged 16, had an attack of infantile vaginitis, and recovered, and remained well until the period of puberty. About this time she was suddenly seized with retention of urine. No menstrual discharge appeared; but a tumour, gradually increasing in size, presented in the hypogastrium. On October 16th, 1869, she entered the General Hospital; and on the 19th Mr. Alfred Baker made an incision about an inch in length in the presenting portion of the vagina, which was completely occluded a little way above the orifice; and about a pint of olive-green tarry liquid was evacuated. The cavity was kept carefully syringed with disinfectants; but in a few days symptoms of peritoneal inflammation set in, and on the 29th she died rather suddenly. *Post mortem* examination revealed acute peritonitis supervening on chronic thickening and matting of the peritoneum, omentum, ovaria, and uterus, the result of inflammatory action, from the long continued irritation and pressure of the contained fluid. The uterus was considerably enlarged, and had evidently undergone a process of involution similar to the gravid uterus after delivery.

Dr. A. UNDERHILL showed a specimen of Tubercle of the Cerebellum taken from a child nine years old. Two years ago, the child had measles, followed by intense headache; then uncertainty in her walking—continual tripping up; paraplegia; loss of sight, of hearing, of speech; and finally total paralysis. She died quite suddenly. On *post mortem* examination, the skull was remarkably thin. The brain had almost entirely lost its convolutions; the fissure of Sylvius was obliterated. There was about a pint and a half of fluid in the lateral ventricles. The parts in the floor of the ventricle were healthy; the

parts underneath the pons were very soft. The right lobe of the cerebellum was intimately adherent to the bone, enlarged, and, on section, was found to contain a mass of tubercle about the size of a large walnut, beginning to soften in the centre. All traces of *arbor vitæ* had gone. The cerebellum round the mass was much condensed. Microscopically, it contained tubercle-corpuscles, granular matter, minute oil-globules, and cholesterine-crystals.

Mr. VOSE SOLOMON showed, under the microscope, a Cysticercus removed by him from the anterior chamber of the eye of a patient shown at a previous meeting of the Section.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE second meeting of the session was held at the York House, Bath, on Thursday evening, December 15th; CHARLES BLEECK, Esq., President, in the Chair. There were also present twenty-eight members and two visitors.

New Members.—The following gentlemen were elected members of the Association and of the Branch: E. M. Grace, Esq., Thornbury; George Adams, Esq., Nailsea; Alex. Ralph Busby, Esq., Bath; H. Culliford Hopkins, Esq., Bath.

Papers, etc.—1. Mr. GAINÉ exhibited a patient seventy years of age, who had lost a large portion of the right Upper Maxilla from Suppurative Inflammation, caused by diseased molar and bicuspid teeth, creating a large opening into the antrum, impairing articulation, and allowing the passage of fluids into the nostrils. Mr. Gaine had fitted an obturator which entirely obviated these defects, and gave much comfort to the patient.

2. Dr. WILBRAHAM FALCONER made some observations on Chronic Rheumatic Arthritis, which may be summed up as follows. 1. Acute rheumatism never gives origin to chronic rheumatic arthritis, excepting under special cachectic conditions. 2. There is an acute stage of chronic rheumatic arthritis characterised by fever of short duration, with perspiration rarely acid (sour); no heart-complication; temperature occasionally high; large joints at first suffering most, and one only of these generally being at the close seriously affected. 3. The common form of rheumatic arthritis (rheumatic gout) comes on slowly, and invades many joints with distortion (rheumatismus deformans?). The articular disturbance in acute rheumatism is a transient affection, requiring palliative treatment—certainly not blistering. In the other two forms of rheumatism, blistering is advantageous, and also tonic remedies, as well as a generous diet.

3. Mr. STEELE narrated a case of recovery from General Dropsy.

4. Mr. R. W. TIBBITS read a case of Myelitis from Injury (?).

5. Mr. R. S. FOWLER made some remarks on the case of Miss Prankerd, who was wounded in the head by a bullet, and recovered.

Considerable discussion arose on the papers read by Dr. Falconer and Messrs. Steele and Tibbits.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT SOCIETY.

A MEETING of this Society was held on Thursday, December 15th, at the Greyhound Hotel, Croydon. The Chair was taken at 4 P.M. by Mr. WHITLING; and twenty-two members were present.

Papers, etc.—1. Dr. TILBURY FOX read a paper entitled Some Remarks on Skin-Diseases. He began with a few observations on the treatment of scabies. Passing to prurigo, the author distinguished between the true prurigo, which is rare, and the more common form, which is the result of pediculi; and exhibited a patient suffering from the latter kind, in order to show the minute hæmorrhagic spots which are pathognomonic of it. On the subject of ringworm, Dr. Fox expressed the opinion, in opposition to that of Dr. Bristowe and others, that the disease, though a local one, is affected by the general health of the patient; and, after briefly stating the general treatment, gave a detailed account of the measures to be resorted to locally in this disease, and in pityriasis versicolor. The mode of action of mercury in syphilis was next touched upon, and the bichloride recommended as the most convenient form of administering the drug. A short sketch of contagious impetigo was given; and the paper concluded with some remarks on the pathology of psoriasis. Considerable discussion ensued on some of the points raised, in which Mr. Hunt, Mr. T. Smith, Dr. Galton, and others, took part.

2. Mr. ROPER read the notes of a case of Traumatic Stricture, in which, having failed to pass an instrument into the bladder, he had operated by perineal section. The patient, who had been previously under treatment at various places for many years, was subsequently discharged able to pass a No. 7 catheter with ease.

3. Mr. JOHNSON gave the history of a case of a child who was Choked

whilst eating some potato. Every effort to dislodge it failing, tracheotomy was performed, but with no better result. The child died shortly afterwards, and the mass of potato was found at the bifurcation of the trachea, chiefly in the left bronchus.

Mr. H. POWER gave his experience in the Treatment of Purulent Ophthalmia. Mr. Power recommended a palliative treatment chiefly—the injection of cold water every hour or so throughout the day, with occasional application of a lotion of nitrate of silver. An account of the trial of carbolic acid, of chloride of zinc, and of Condry's fluid, was given; but the latter only seemed to give satisfactory results.

Next Meeting.—It was arranged that the next meeting should take place at the Crystal Palace Hotel in March.

Dinner.—The dinner took place at 6 P.M. Mr. Whitling occupied the Chair, and twenty-four gentlemen, members and visitors, attended.

CORRESPONDENCE.

THE HOSPITAL REFORM COMMITTEE.

SIR,—Will you allow me to state that the only response I have had to the letter of Sir William Fergusson which appeared in your last issue, asking for funds to defray the expenses of printing, etc., incurred by the Out-Patient Hospital Reform Committee, has been a guinea from Mr. Heckstall Smith, and five shillings each from Mr. Francis Mason and Mr. Fairlie Clarke.

The expenses at present amount to about thirty pounds, and more must be incurred if the work of the Committee is to be completed. Surely the two hundred members of the profession who appointed us a Committee do not intend that we should pay as well as work. We are quite willing to do all the latter, but we think we ought at least to bear only our share of the former. I am, etc.,

George Street, Hanover Square.

ALFRED MEADOWS.

OBITUARY.

GEORGE DAGLISH, Esq., J.P., F.R.C.S.ENG.

MR. GEORGE DAGLISH of Wigan, who died a short time since, had practised in that town for more than forty years. In early life he served an apprenticeship with the late Dr. Martland of Blackburn, and subsequently studied at St. Bartholomew's Hospital, London. He obtained a large practice in Wigan and the neighbourhood, and was held in high esteem both by his patients and fellow-townsmen. His kindly voice and cheery smile carried hope and consolation to many a bed of sickness, and will long be remembered by those who knew him. About eight years ago he had a slight attack of an apoplectic character, which passed off. His health, however, gradually failed; and about four years ago he consulted Dr. Noble of Manchester; and subsequently, about a year later, he consulted Dr. Waters of Liverpool. Symptoms of valvular disease of the heart and fatty degeneration had then developed themselves. From this time Mr. Daglish retired very much from practice. He occasionally suffered from severe attacks of angina and dyspnoea; but he still continued to visit some of his patients, and to perform his duties as an alderman and magistrate. On October 18th, as he was about to leave his house to pay some visits in his carriage, he had an apoplectic attack. He was at once attended by Mr. Hunt, his assistant (his partner, Mr. Shepherd, being from home); and Dr. Waters of Liverpool saw him in the afternoon. He was then slightly conscious, but his condition seemed perfectly hopeless. Dr. Waters saw him again on the following day, and was then joined in consultation by Dr. Noble of Manchester; but coma had set in, and death took place on the following morning, the attack having lasted only forty-four hours.

Mr. Daglish was a Fellow of the Royal College of Surgeons of England, a justice of the peace for the county of Lancaster, and an alderman of the borough of Wigan. He had been on more than one occasion asked to accept the office of mayor, but had declined. In politics, he was a staunch Conservative. He was a very old member of the British Medical Association, and of its Lancashire and Cheshire Branch, the annual meetings of which he used regularly to attend; and his absence from them in future will be much felt by many of his friends. He was sixty-five years of age, and was twice married. His second wife survives him. His funeral assumed almost a public character, and was largely attended by the profession and inhabitants of Wigan.

JOHN HARRUP HAMMERTON, L.S.A.

JOHN HARRUP HAMMERTON, Esq., aged 69, formerly Resident Medical Officer to St. George's Hospital, died at his residence at Henley-on-Thames, on January 10th.

Mr. Hammerton was connected with St. George's Hospital for upwards of forty years, and it may truly be said that the energies of his life were devoted to the interests of that institution. His influence was felt in every department of the Hospital, and either directly or indirectly his opinions had a large share in the regulation of all its affairs. Even the senior officers were often glad to profit by his advice, which was always available for the benefit of the institution, or of any one connected therewith. Whenever any difficulty occurred either in the management of the Hospital or in the care of the patients, the same influence for good was at hand. Mr. Hammerton's opinion might always be asked, and was always readily given, although the reasons for that opinion were seldom heard.

The estimation in which the Governors of St. George's Hospital held Mr. Hammerton, and the sense which they entertained his services, extending over so long a period, has been indicated by a resolution passed at the Weekly Board, and directed to be sent to his nearest relatives. On January 11th, it was moved and unanimously carried:—

"That this Board, fully sensible of the valuable services of Mr. John Hammerton during the long period in which he resided as Medical Officer in the Hospital, are desirous of expressing the sincere sympathy of the Board with Mr. Hammerton's family in the loss which they have sustained."

The Treasurer was requested to be good enough to communicate the above resolution to the family of the late Mr. John Hammerton.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

At a meeting of the district medical officers of St. Pancras, held on January 24th (one only being absent), it was resolved to apply to Mr. Göschel for an interview, in reference to the proposed appointment of one vaccinator for St. Pancras, a parish of twenty miles circumference, and containing over 250,000 population, as suggested by Dr. Seaton. We are pleased to add that they all became members of the Poor-law Medical Officers' Association; some who were not so, becoming members of the British Medical Association.

VACANCIES.

CRAIGNISH, Argyleshire—Parochial Medical Officer.
DUNDONALD, Ayrshire—Medical Officer for the Halfway District: applications, 30th.
FALMOUTH UNION, Cornwall—Medical Officer for the Constantine District: applications to the Vicar. Vacancy, March.
KIRKMICHAEL, Dumfriesshire—Parochial Medical Officer: applications, March 1st.
LOCHBROOM, co. Ross and Cromarty—Parochial Medical Officer: applications, Feb. 13th.
MORVEN, Argyleshire—Parochial Medical Officer.
NEATH UNION, Glamorganshire—Medical Officer and Public Vaccinator for the Llansamlet District: applications, Feb. 1st; election, 7th.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

THE INDISCRIMINATE ISSUE OF DISPENSARY TICKETS.

THE indiscriminate issue of dispensary tickets is a grievance that is fast becoming almost intolerable in Ireland, and conveys a moral to our English Poor-law brethren in the formation of a similar system there. In Ireland, tickets can be issued by members of dispensary committees, wardens, and relieving officers. Of the first there are, according to the last census, fourteen thousand; the wardens and relieving officers number as many more. In many instances, tickets are issued indiscriminately by these twenty-eight thousand individuals—sometimes to tenants, sometimes to customers, very often to friends; and it not unfrequently happens that the ticket is given for attendance on some member of the family of the individual who has the privilege of giving

it. This, in most rural districts, reduces private practice to the lowest ebb. In looking over the reports of the meetings of the various boards of guardians during the last week, it is remarkable what a delicate power of discrimination that of the Waterford Union possesses when it is required to pay the doctor directly, and how nicely it draws the line as to who is not entitled to Poor-law medical relief. We commend this to the notice of the medical officers of other unions also. A railway official earning a pound a week became ill. The dispensary doctor being ill also, the relieving officer was obliged to call in another medical man, who demanded one guinea for his attendance. The guardians expressed violent indignation that a man earning a comfortable salary should be relieved at the expense of the ratepayers. We hope that some line will be drawn where the proper recipient for medical relief will be defined. At present, it is said "a poor person"; and the issuer of the ticket may consider himself and his friends to be such, and act accordingly. This is a question that will be discussed at an early meeting of the Poor-law Medical Officers' Association of Ireland; and, from the numerous communications which we have received on the subject, we understand that the question is likely to be raised also as to the advisability of maintaining the "guinea fee", more especially in rural districts. We are informed that in many instances the assertion of poverty is made use of on the issue of a ticket for Poor-law medical relief, when, if it were distinctly understood that a less fee would suffice, it is said that the ticket would be refused. This is a matter of considerable importance, clearly within the province of the Association. At present, we do not wish to give any opinion on the subject. The matter was brought before the notice of the profession in Ireland in Dr. Ashe's Carmichael Essay some years ago, in a very able manner. Mr. Gregory, M.P. for Galway, also alluded to it at the last general election, in a letter to Dr. Nolan, saying that if it were generally understood that, for small farmers and others, a smaller fee than £1 would be accepted, it would not only increase the number of fees, but cause increased liberality on the part of boards of guardians. He did not believe that the average fee was greater than 5s.; but that, if it were distinctly understood that 5s. would be accepted, it would be more frequently received. Mr. Jacob of Waterford related a case where a man came with half-a-sovereign in one hand and a dispensary ticket in the other, saying that, if the doctor did not choose to attend for half-a-sovereign, he would make him do so for nothing by presenting the dispensary ticket. When such an occurrence takes place, though the subject may be a delicate one, we concur that it is time that it should be discussed.

INSPECTORS OF MEDICINE.

THE order for the appointment of one Poor-law Unions' Apothecary for Ireland has been rescinded by order of the Poor-law Commissioners. Although we objected to the measure as at first promulgated, we yet think that the system of inspection which we then advocated should be carried out; and that, not only of medicines themselves, but of the places where the medicines are kept. The receptacles provided for medicines by certain economic Boards of Guardians are, according to the reports of them, anything but favourable to the preservation of the drugs. Some decided steps must be now taken. The Commissioners were not happy in their first attempt; but we give them credit for acting with the best intentions, as, we are bound to say, the Irish Poor-law Commissioners generally do. The system of inspection is one that appears to be favoured by all parties; and, as it has our recommendation, it will also have our support.

VACANCIES.

CLONMEL UNION, co. Tipperary—Medical Officer for the Clonmel Dispensary District.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

CLINICAL INSTRUCTION.—The Regius Professor of Medicine (Dr. Acland) proposes to form two classes—one for ordinary clinical instruction, another for the practical study of the requisites for personal and public health. In connexion with the latter class, instruction will be given at the Museum by C. C. Poole, M.D., of Exeter College. The first class will be held on Tuesdays and Saturdays, at the Infirmary; the second will meet at the Museum, on Fridays, at 10 A.M.

ANATOMY AND PHYSIOLOGY.—The Linacre Professor of Anatomy and Physiology (Dr. Rolleston) will lecture at the Museum on Tuesdays, Fridays, and Saturdays, at 1, on "Anatomy and Physiology—the

Nervous System". His lecture commenced on Tuesday, January 24th. He also proposes to form classes for practical instruction, as in former years.

MEDICAL NEWS.

SMALL-POX IN THE METROPOLIS.

THE Medical Officer in the Privy Council has followed up his circular to the Metropolitan Boards of Guardians of the 6th instant, by an active inquiry as to the measures which the different Boards have taken to carry out the recommendations of the circular and of the memorandum appended to it, which set forth the steps that become necessary when small-pox prevails as an epidemic. The inquiry extends also to the measures which have been taken by the Vestries and District Boards of the metropolis, as the sanitary authorities, for exercising the large powers they possess for providing temporary hospital accommodation and for disinfection. Dr. Seaton, Dr. Stevens, Dr. Buchanan, and Mr. J. Netten Radcliffe have been directed to make this inquiry, and are now carrying out their instructions. They are also directed to give such information and assistance to the different local authorities as the Medical Department of the Privy Council-office can afford.

Under date of January 24th, the Medical Officer of the Privy Council has just issued an excellent circular calling attention to the powers possessed by the Vestries under the Sanitary Act 1866, and urging them to employ them. We regret to be unable to find space for it here.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on January 24th.

Aikin, Charles Edmund, Clifton Place West (Guy's).
Beamish, James M., M.D., Queen's University, Cork (Dublin School).
Bradford, Henry L.R.C.P., Edin., Great Ormond Street (St. Bartholomew's).
Carey, Frank James, M.A. Lond., Clapton Square (Guy's).
Cass, S. T., L.R.C.P. Ed. and L.S.A., St. George's Road (King's College).
Clapham, William Crochley Sampson, Southsea (Guy's).
Claridge, William, L.S.A., Brook Street (St. George's).
Clarke, Thomas Kilner, M.A. Cantab., Huddersfield (Guy's).
Doran, Albert H. Griffiths, Lansdown Road, Notting Hill (St. Bartholomew's).
Duke, Bernard, L.S.A., Littlehampton (King's College).
Epps, Washington, Devonshire Street (University College).
Feltham, Charles, Portsmouth (St. Bartholomew's).
Harril, Charles Henry, Leeds (Leeds School).
Image, Francis E., M.B. Cantab., L.R.C.P., and L.R.C.S., Bury St. Edmunds (Edinburgh School).
Johnson, Arthur Lukes, M.B., Toronto (St. Thomas's).
Lewis, Lewis, Argyll Square (University College).
Longhurst, Alexander Keene, L.S.A., Farnham (University College).
Moore, H. C. (late lieutenant R.E., Bombay Army), Birmingham (Birmingham School).
Moss, James West, L.R.C.P. Edin., Manchester (Manchester School).
Mugliston, H. B., L.S.A., Upton, Essex (London).
Netherclift, W. H., L.S.A., Convict Prison, Portsmouth (Charing Cross).
Newton, Charles John, L.S.A., Cheltenham (St. Bartholomew's).
Rae, Frederick George, Fulham (St. George's).
Ray, W. J. R., L.S.A., West Square (Westminster).
Skinner, Edward, L.R.C.P. Edin., Sheffield (Sheffield School).
Tomlins, James, Manchester (Manchester School).
Whitehead, Alfred, Birmingham (Birmingham School).

Admitted members on January 25th.

Bullock, James Lawrence, Berkhamstead (University College).
Cross, Francis Richardson, Clifton (King's College).
Davenhill, Robert Septimus, L.S.A., Wolverhampton (St. Bartholomew's).
Doyle, Jeremiah, Enniscorthy (Dublin School).
Dunnage, Arthur Richard, Surbiton (Guy's).
Evans, Charles, Oldham (Manchester School).
Holman, Robert Colgate, L.S.A., East Hothley, Sussex (Guy's).
Hosegood, Samuel, L.S.A., Willton (Guy's).
Kay, Hildreth, Commercial Road (London).
Lyell, Robert Wishart, Upper Norwood (King's College).
Parker, Walter Augustus, Chelsea (St. George's).
Pires, Joseph Octaviano, Bombay.
Rowland, George Le Hunt, Gray's Inn (King's College).
Slaughter, William Budd, L.S.A., Farningham, Kent (St. Thomas's).
Sparrow, Richard Henry, Dublin (Dublin School).

Eleven candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their hospital studies for six months.

The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners, on Jan. 17th; and, when eligible, will be admitted to the pass examination.

Messrs. Francis A. Owgan, F. Algernon Hall, Russell H. Monro, Edward J.

Lloy, Cottenham Farmer, Charles G. Jones, and Edward Jepson (St. Bartholomew's Hospital); Nicholas C. Collier, E. Rice Morgan, C. Martin Vowell, George H. Le Mattée, James Powell, and H. Beale Collins (King's College); John Claue, Alfred P. Kingscombe, Andrew E. Kessen, and Joseph B. Bunney (Guy's Hospital); J. Mitford Ling and William E. Griffiths (Middlesex Hospital); Robert A. K. Holmes and R. Strickland Hannay (Dublin School); John L. Hemming (St. George's Hospital); J. Maybury Beamish (Cork School); and Charles A. Fox (London Hospital).

It is stated that thirty-three candidates were rejected out of the seventy-eight examined.

APOTHECARIES' HALL.—The following gentleman passed his examination in the science and practice of medicine, and received a certificate to practise, on Thursday, January 19th, 1871.

Wood, Robert Arthur Henry, Liverpool

The following gentleman also on the same day passed his first professional examination.

Dudley, William Henry, University of Glasgow

As Assistants in compounding and dispensing medicines.

Holding, John, Exeter

Troake, Marler Hamilton, Kingsbridge, Devon

MEDICAL VACANCIES.

THE following vacancies are announced:—

BEDFORD, County of—Surgeon to Visitors of Houses Licensed for Lunatics.

BRIGHTON and HOVE PROVIDENT DISPENSARY—Honorary Physician; Surgeon for the Cliftonville District: applications, Feb. 6th, to J. Denuant, Hon. Sec.; election, 10th.

BRISTOL ROYAL INFIRMARY—Assistant-Physician for the Out-patient Department; Assistant-Surgeon for Out-patient Department: 28th.

CHELTEMHAM GENERAL HOSPITAL AND DISPENSARY—Surgeon: applications, 21st; election, 31st.

CLONMEL—Medical Attendant to the Royal Irish Constabulary.

CORNWALL ROYAL INFIRMARY, Truro—House-Surgeon, Secretary, and Dispenser: applications, Feb. 1st; election, 9th.

COUNTY OF WICKLOW INFIRMARY—Surgeon; Apothecary; applications, 31st; election, Feb. 1st.

DRAMATIC, EQUESTRIAN, and MUSICAL SICK FUND—Physician.

HOLLOWAY AND NORTH ISLINGTON DISPENSARY—Assistant to the Resident Medical Officer: applications, 28th.

KENT COUNTY OPHTHALMIC HOSPITAL, Maidstone—Consulting Surgeon: March 18th.

LIVERPOOL PRINTERS' SICK SOCIETY—Medical Officer.

MANCHESTER ROYAL INFIRMARY—Physicians' Assistant; Junior House-Surgeon.

NORTH ST. PANCRAS PROVIDENT ASSOCIATION—Physician.

ROYAL ASYLUM OF ST. ANNE'S SOCIETY—Physician.

ROYAL SURREY COUNTY HOSPITAL, Guildford—Medical Officer: Feb. 23rd.

SHEEPWASH, Devonshire—Medical Officer for the Foresters and other Clubs.

UNIVERSITY COLLEGE HOSPITAL—Assistant Obstetric Physician.

WINDSOR ROYAL INFIRMARY AND DISPENSARY—House-Surgeon: applications, Feb. 7th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

CARRUTHERS, William H., M.D., appointed Senior House-Surgeon to the Manchester Royal Infirmary, *vice* A. Boutflower, Esq.

DARBY, J. T., Esq., appointed Physician's Assistant to the Manchester Royal Infirmary, *vice* A. E. Sutcliffe, Esq.

SUTCLIFFE, A. E., Esq., appointed Junior House-Surgeon to the Manchester Royal Infirmary, *vice* W. H. Carruthers, M.D.

THOMSON, John, L.R.C.P. & S. Ed., appointed Medical Officer to the Workhouse, Kingswinford, Stourbridge Union, *vice* John Ireland, Esq., resigned.

VACHELL, C. T., M.B., appointed House-Surgeon to the Glamorganshire and Monmouthshire Infirmary and Dispensary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

YOUNG.—On January 24th, the wife of *George Edmund Young, M.D., Leeds, of a daughter.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.—DURING the Christmas week the patients at this institution, in addition to the usual dinner and tea, had small presents given to them at the expense of some members of the Committee. The presents, which were, as far as possible, useful ones—consisting of flannels, chest protectors, comforters, shawls, etc.—were made by the female patients under the superintendence of the matron. On the 19th instant, a further treat was given in the form of a musical entertainment. One of the large wards was set apart for the occasion, and tastefully decorated with plants, evergreens, etc. The music, both vocal and instrumental, evidently gave great satisfaction. Nearly all the patients in the Hospital were able to attend, and several of the committee and officers of the institution, with their families, were also present, and seemed fully to enter into the enjoyments of the evening.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.

SATURDAY St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. W. Spencer Watson, "Two Cases of Ptoxis treated by Operation"; Dr. Richardson, F.R.S., "Notes on Transfusion of Blood, and on a new Apparatus for Transfusion"; Mr. Gav (President), "A Case of Internal Strangulation by a Band, and its successful Treatment"; Dr. Peter Allen, "On the most recent Methods of Inflating the Tympanum".

TUESDAY.—Anthropological Institute of Great Britain and Ireland, 8 P.M.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. President's Address. Dr. Playfair, "On Irritable Bladder in the later months of Pregnancy"; Drs. Braxton Hicks and Phillips, "Remarks on Tables of Mortality after Obstetric Operations."

THURSDAY.—Harveian Society of London, 8 P.M.—Royal Society.—Chemical Society.—Linnæan Society.

FRIDAY.—Western Medical and Surgical Society of London, 8 P.M.

EXPECTED OPERATIONS AT THE HOSPITALS.

HOSPITAL FOR WOMEN, Soho Square, Saturday, January 28th. Colotomy, by Mr. Christopher Heath; Ovariectomy, by Dr. A. W. Edis.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

DR. ALEXANDER OGSTON (Aberdeen).—The paper is in type, and will appear shortly.

MR. R. M. FAWCETT (Cambridge).—This is a matter which has, in all journals, to be regulated by the exigencies of the case. We prefer the arrangement for which our correspondent has a preference; but it cannot always be carried out.

NEPTUNE is, perhaps, not aware that we have a number of papers in hand, of dates antecedent to his own; and some of which, at least, must precede it in publication. His paper is marked for early insertion.

APPEAL TO THE MEDICAL PROFESSION.

SIR,—The late Joseph John Edward Porter, M.R.C.S. and L.S.A., formerly a student of the London Hospital, practised for thirty years and held the office of Registrar of Births at Godshill, Isle of Wight. Latterly, his health entirely failed him, and he died in a state of absolute penury, leaving his daughter, aged 17, who is suffering from phthisis, wholly dependent on charity. Subscriptions will be thankfully received, and duly acknowledged in the BRITISH MEDICAL JOURNAL.

I am, etc.

E. R. WOODFORD, M.B.,

Medical Officer of the Godshill District, Isle of Wight Union.

Ventnor, January 17th, 1871.

ROYAL COLLEGE OF SURGEONS.

THE following were the questions at the recent examination in anatomy and physiology at the College:—1. State what muscles separate the teres minor from the teres major; describe the spaces left between the three muscles, and the vessels and nerves which pass through the spaces in question.—2. How is death produced by starvation? Describe the appearances observed after death from this cause.—3. Describe the constituents of the root of the lung on each side, in their several relations to each other, and to the neighbouring parts; and state their mode of distribution within the lung.—4. Describe the mechanism of deglutition, in its various stages—from the mouth to the stomach.—5. Give the course, relations, and distribution (including anastomoses) of the ulnar artery.—6. Mention the organs to which the pneumogastric nerves are distributed; and describe their special function in each organ.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. RICHARDS, not later than *Thursday*, twelve o'clock.

THE following advertisement appears in the *Malvern News*:—

"Mr. Frederick Smith, of Leeston, announces that his two youngest children have scarlet fever; his four elder boys were removed, after disinfection of their persons and clothes, into lodgings on the day on which the disease in the little ones was pronounced. N.B.—This advertisement will be continued till the medical attendant shall certify that there can be no risk to visitors and others."

We applaud the courage and public spirit of Mr. Frederick Smith. We could wish that other citizens, public and private, showed an equal sense of duty. There would then be the less necessity for this exceptional but effectual proceeding, which is meantime worthy of imitation.

We have forwarded 1,000 copies of documents to Mr. Reginald Harrison, Liverpool; 200 copies to Dr. Philipson, Newcastle-upon-Tyne; 1,000 to Mr. Benson Baker; 1,000 to Dr. Maunsell, Dublin; 150 to Mr. Nicholson, Hull. We have in hand a series for Mr. Stonard Edye, Exeter; and wait further communications from Mr. Dolman, Derby, and Mr. Bartleet, Birmingham.

OUR attention is called to an advertisement by a medical man in the *Braintree and Bocking Advertiser*. We hope it is a first offence; and we are unwilling to do more than express here the hope that it will not be repeated. The practice of public advertising is derogatory to the professional character, and cannot therefore but be equally so to that of the individual medical practitioner who resorts to it.

THE LENGTH OF THE FEMUR.

SIR,—Please give me a reference to where I can ascertain the average length of the human femur. I have searched all my anatomy text-books in vain,

I am, etc., M.D.

*** The "length of the human femur" must vary so greatly with different races and individuals that we should have supposed a search after its "average" valueless and almost impossible; but some of our readers may be better informed.

THE SPREAD OF SCARLATINA.

SIR,—In my "Observations on the Propagation of Scarlatina," criticised by Mr. Paul Swain, I did not say that scarlatina was never propagated by personal infection, but, whilst distinctly acknowledging its occasional propagation in that way, I asserted that the repeated mode of its spread in a large rural district, many years under my observation, was clearly inconsistent with belief that the first cases and initial spread of scarlatina were by personal propagation, but that, as each epidemic became intimately multiplied, of course proof against personal propagation became impossible, and popular inference took the side of infection, often extremely to the disadvantage of the afflicted. If the virus of scarlatina be from desquamation, how does scarlatina latens propagate? and if "dried epithelial scales are wafted on every wind to an indefinite distance", and so bear infection, what of the required incubation, when distant cases appear day by day, and not after an admittedly necessary, though as yet ill-defined, period of at least many days? Besides, too, "wafted scales" must go with the wind-current, but the epidemic cause, whatever it be, often goes in direct opposition to it; and if the virus of scarlatina be an animal matter, is there not another contradiction in the employment of carbolic acid as a disinfectant, since any effect of carbolic acid so used must be to conserve, not to destroy such virus; but why are we unwilling to allow of a chief cause apart from personal propagation? We saw, in the same year, the potato-bulb become similarly affected on each side the Atlantic, and no one will deny to that a general cause, I suppose, that is, a law-cause apart from individualism; and why may not the almost infinite variety of meteorological changes ever going on in the atmosphere be sometimes intensified by geological causes; or, if malaria, by altered condition, and not by importation of atoms, should be proved to have the power of aerial elaboration, it would be no more curious than cell-power in disease factoring itself. If the ordinary spread of scarlatina be by a personal propagation as subtle as that generally assumed, what gives the doctor immunity? and when he passes from patient to patient still pleading *isolation*, the incongruity would be laughable, except that incongruous reasoning is no joke in a doctor.

Taunton, January 18th, 1871.

I am, etc., GEORGE CORDWENT.

THE SURGERY OF THE JOINTS.

SIR,—The highly successful termination to a case of severe injury of the elbow-joint, treated according to the antiseptic method, recorded in your number of the 29th October, warrants, perhaps, the high eulogium passed on that system of treatment by Dr. Marshall; and I have every reason myself to agree with him in the general tenor of his remarks; but the system of reasoning known as *post hoc, propter hoc*, is a fallacious one when applied to our profession. The following case, I think, will show a case similar in severity, and altogether not unlike the one communicated by Dr. Marshall.

On the 8th of June last, a Krooman, aged 25, while going alongside H.M.S. *Flora* (a heavy swell being on at the time), in fending off the boat, managed to slip; and in so doing received the impact of the boat's stem on the inner side of his left forearm, sustaining thereby a compound comminuted fracture of the ulna close to the joint. The wound was four inches in length, communicating with the joint; it was much contused; and there was arterial hæmorrhage to such an extent that his clothes were saturated before he could be seen by the medical officer of his ship. The hæmorrhage having been arrested, he was at once brought on shore to hospital. On his admission, the injury was considered to be of such a serious nature that the question of amputation was discussed; it was, however, decided to adopt Lister's plan of treatment and endeavour to save the limb. The wound was injected with the solution, and the arm covered with gutta percha tissue (nothing else being available), the junction of that with the skin being covered with the antiseptic putty. In the course of a few hours, the pain became so intolerable that the dressing was removed, when the skin was observed to be so blistered that it could not be reapplied. It was then decided to use plain water dressing. The swinging part of Salter's apparatus was disengaged from the frame and suspended in such a way from the top of the mosquito-frame of his bed that the limb lay in it with the greatest comfort. Afterwards, a weak solution of carbolic acid on lint was laid over the wound; no other dressing was used. He was discharged cured on the 26th September, with perfect movement of the joint, and is now able to perform his duty as oarsmen as well as ever. Had Lister's plan been persevered in, would not this favourable issue have been entirely attributed to its use?

I am, etc.,

W. J. EAMES, L.K.Q.C.P., Surgeon in Charge.

Royal Naval Hospital, Ascension, December 16th, 1870.

NEW MEMBERS.—SECOND LIST.

COMMUNICATIONS have been received by us from the under-mentioned gentlemen, and the necessary steps have been taken towards their election into the Association, as to which they will receive official notice:—

Mr. J. L. Thomas, St. Clears; Dr. R. McKillian, Huntley; Dr. T. Sayer, Kirkby Stephen; Mr. H. J. Lloyd, Barmouth; Mr. T. Sheriff, Batho, Edinburgh; Dr. W. H. Goode, Finglas, Dublin; Mr. T. J. Webster, Merthyr Tydfil; Dr. G. Kemp, Barnstaple; Dr. A. Sheen, Cardiff; Mr. D. E. Jones, Cardiff; Mr. A. Campbell, Navenby; Dr. J. Norton, Glasgow; Dr. Wise, Plumstead; Dr. J. Christie, Dundee; Dr. Torrance, Dunchurch; Mr. W. H. Davies, Newport, Monmouthshire; Dr. H. O. Stephens, Stapleton, Bristol; Dr. V. C. Clarke, Pen-tonville; Dr. W. McNeil, Stranraer; Mr. M. A. Robinson, Ditching; Mr. J. H. Soper, Blaina; Mr. G. Rodwell, Loddon; Dr. H. Marks, Dublin; Dr. G. R. Barnes, Ewell; Mr. J. Savage, Swinefleet; Dr. G. F. Pritchard, Greenstreet.

MEDICAL REFORM.

SIR,—As the subject of amending the "Medical Acts" is again occupying considerable attention, it is well, in order to judge of the merits of any proposed scheme for improvement, to bear in mind what the present evils are. It is very generally said that the number of diplomas at present issued is too great, and that the establishment of a single qualification for general practice (though most desirable) would simply increase the evil already existing. The multiplicity of qualifications being, then, one of the things to be altered, and a single uniform licence the remedy proposed, does the objection above alluded to hold good? I answer, it does not; and for the simple reason that, were it instituted, at least eight of the diplomas now granted would cease to be required or issued. There need, then, be only two examinations in each division of the kingdom, viz., those for the Fellowship of the College of Surgeons and Membership of the College of Physicians.

Although the Examiners might be chosen from the Colleges and Halls, the diploma issued would be entirely independent of the Corporation. No doubt it would be to the advantage of the general licentiate to connect himself with one of the Colleges; but any matter of that kind where self-interest is concerned, might be safely left to the discretion of our British youths themselves, who are never slow to make discoveries when that important principle is involved. It will be seen that my list of abolished diplomas does not—as it perhaps ought—include the surgical licences of the Universities; and I may add, that in order to bring about the "happy family" state of things proposed, it is presumed that the present licentiates would be made members of the different Colleges to which they belong, by which means some of the distinctions which, if not puzzling, are at least amusing, would be lessened.

List of Diplomas that, in the event of a general Licence in Medicine and Surgery being established, might be abolished:—

England.—1. Licence of College of Physicians. 2. Membership of College of Surgeons. 3. Licence of Apothecaries' Society.

Scotland.—4. Licence of the College of Physicians. 5. Licence of the College of Surgeons. 6. Licence of the Glasgow Faculty.

Ireland.—7. Licence of King and Queen's College of Physicians. 8. Licence of King and Queen's College of Surgeons. 9. Licence of Apothecaries' Hall.

Is not the following a funny conglomeration? A List of the Fellows, Members (by examination), Ditto (by purchase). Licentiates, who obtained their qualification before December 22nd, 1860; Extra Licentiates, Licentiates, who obtained their qualification subsequent to 1860—of the Royal College of Physicians, London. I am, etc., ASSOCIATE.

December 20th, 1870.

P.S.—Would the Dublin and Edinburgh Colleges insult their Licentiates by entertaining any scheme that would reduce them to the level of Apothecaries? See recent amalgamation scheme of London College of Physicians.

SENDING PAUPERS TO THE DISPENSARY.

At a recent meeting of the Worcester Board of Guardians, a long investigation was, we observe, conducted into complaints by Mr. J. Stallard, that Dr. Woodward, one of the union medical officers, had given recommendations for the dispensary to certain persons who had received orders from the relieving officers for him (Dr. Woodward) to attend them as pauper patients; and that he thereby relieved himself of trouble, expense, and responsibility, for which he was paid as a medical officer in the service of the union. Dr. Woodward retorted by complaints that he was obstructed in his work by the gentleman making this charge. The matter has occupied considerable time and attention; and, after a lengthened investigation, it appears that in one case Dr. Woodward had obtained for a patient, having a medical order, a dispensary letter.

The grievance appears to be so slight, that it was a pity so much time should have been occupied; and the conclusion we derive from reading the evidence is, that it would have been better had a private communication been made on the subject by Mr. Stallard to Dr. Woodward, if he thought the subject one calling for remark. In the end, we are happy to observe, Mr. Stallard and Dr. Woodward "shook hands amidst the applause of the Board."

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

EXTENSION OF THE ASSOCIATION.

DR. HENRY BARNES (Carlisle) writes:—I send you a list of all members of the profession residing in Cumberland and Westmorland who are not members of the Association, and I should feel obliged if you would send them a copy of the JOURNAL for the first week in the new year. The list is prepared from the *Medical Directory* for the present year, and includes the names of many who are retired from practice, and no longer take an active interest in the profession, and also of some who are assistants, and not established in practice. According to the last published returns, the Association numbers eighty-two members in the two counties. If you exclude from the enclosed list all those not in actual practice, you will find that more than two-thirds of the profession in the district are members of the Association. Previous to the formation of the Branch two years ago, the number of members of the Association in the district was only about half a dozen. Looking at this rapid growth of the Association, I think we have good reason for congratulation and for hoping that our numbers will, another year, be still larger. I do not think that a branch can be considered to have attained its full limit of usefulness until it has enrolled all the acting members of the profession practising in the district.

THE PERILS OF THE STREETS.

SIR,—The means are very simple by which most of the "street accidents" might be prevented, yet nothing is done, and the sacrifice of life continues. A benevolent nobleman introduced a Bill (during two successive sessions of Parliament) containing clauses concerning the regulation of street traffic, with many other very useful provisions; but the Bill received no encouragement, and on both occasions it was withdrawn; it proposed one most important rule for drivers, viz., that the pace should be considerably slackened in crossing a main thoroughfare. This precaution is entirely disregarded, and it is a common occurrence for vehicles to be driven at a smart pace out of side streets by reckless "whips" who should know that the right of way is with those who have the command of vehicles along the principal streets. I have witnessed many "accidents" and "narrow escapes" in consequence of this very common-sense rule being disregarded. I am, etc.,

London, December 27th, 1870.

PRECAUTION.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, Jan. 7th; The New York Medical Record, Jan. 12th; The Boston Medical and Surgical Journal, Jan. 12th; The Madras Mail, Nov. 14th; The Shield, Jan. 21st; The Southport Visiter, Jan. 13th, 16th, and 17th; The Torquay Times, Jan. 14th; The Chemists' and Druggists' Advocate, Jan. 20th; The Yarmouth Independent, Jan. 21st; The Western Mail, Jan. 19th; The Brighton Times, Jan. 21st; The Leeds Mercury, Jan. 19th; The Scotsman, Jan. 17th and 24th; The Southport Independent, Dec. and Jan. *passim*; The Limerick Chronicle, Jan. 10th; The Harrow Gazette, Jan. 14th; The Merthyr Telegraph, Jan. 6th; The Buxton Advertiser, Jan. 14th; The Mayo Constitution; Saunders' News Letter; The Oxford Chronicle, Jan. 7th; The Malvern News, Jan. 7th; The Kentish Observer; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. T. H. Bartleet, Birmingham; Mr. W. Jones, Ruabon; Dr. H. Simpson, Manchester; Mr. J. Hinton, Warminster; Mr. T. Robinson, Altou, Cheadle; Dr. R. M. Fawcett, Cambridge; Mr. W. Stephenson, Beverley; Dr. E. A. Howsin, Newton-le-Willows; Mr. H. H. Granger, Skipton; Dr. Pennington, Liverpool; Mr. R. B. Benson, Pulverbach; Mr. G. Chapman, Brierley Hill; Dr. Lindsay, Perth; Dr. Davidson, Liverpool; Mr. R. C. N. Davies, Rye; Mr. Firth, Macclesfield; Mr. W. Renwick, Newport; Dr. Edwards, Benarth, Conway; Mr. Bishop, London; Dr. D. W. Williams, King's Lynn; Dr. Cobbold, London; Dr. Bradbury, Cambridge; Mr. Davies, Heytesbury; Mr. Stonard Edge, Exeter; Mr. Sargent, London; Messrs. MacLachlan and Stewart, Edinburgh; Dr. W. Ogle, Derby; Dr. Waters, Liverpool; Mr. T. S. Smith, Warrington; Mr. Reginald Harrison, Liverpool; Dr. Meehan, Limerick; Dr. Sykes, Doncaster; Mr. A. J. Crespi, Leicester; Mr. A. Davies, Swansea; Mr. J. R. Curtis, Canterbury; Mr. P. A. La Fargue, Coventry; Dr. Falconer, Bath; Mr. W. Lane, London; Mr. Power, London; Dr. E. Symes Thompson, London; Dr. Charlton, Newcastle-upon-Tyne; Dr. Cordwint, Taunton; Mr. Flower, London; Mr. T. H. Bartleet, Birmingham; Dr. Davey, Northwoods, Bristol; Dr. Barclay, Leicester; Dr. A. Meadows, London; Mr. Sydney Jones, London; Mr. W. Rigden, London; Mr. R. Argles, Maidstone; Mr. A. H. Dolman, Derby; Dr. Dudgeon, London; Dr. Edis, London; Mrs. Hemming, Kimbolton; Mr. T. Pridgin Teale, Leeds; Mr. Lawson Tait, Birmingham; etc.

LETTERS, ETC. (with enclosures), from:—

Dr. Patrick Black, London; Mr. Wm. Mac Cormac, London; Dr. C. Handfield Jones, London; Mr. Jonathan Hutchinson, London; Mr. Campbell De Morgan, London; Our Liverpool Correspondent; Mrs. Baines, London; Dr. Bradbury, Cambridge; Mr. H. Horton, Adelaide, Australia; Dr. G. H. Philipson, Newcastle-upon-Tyne; Mr. Denis Phelan, Killiney; Our Dublin Correspondent; Mr. W. Nuttall, Heywood; Dr. J. Chapman, London; Dr. H. W. Fuller, London; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Our Glasgow Correspondent; Mr. J. W. Hulke, London; Dr. Mapother, Dublin. The Secretary of the Obstetrical Society; Our Manchester Correspondent; Dr. Grimshaw, Dublin; Dr. Hayden, Dublin; Our Edinburgh Correspondent; Mr. C. P. Bellamy, Devonport; Dr. J. P. Purvis, Greenwich; Our Paris Correspondent; Dr. Eastwood, Darlington; Dr. J. R. Wolfe, Glasgow; Dr. J. D. Rendle, London; The Secretary of the Middlesex Hospital Medical Society; Dr. Whitmore, London; Dr. T. Jones, London; Dr. L. O. Fox, Broughton; etc.

BOOKS, ETC., RECEIVED.

On the Treatment of Intrathoracic Aneurism by the Distal Ligature. By Christopher Heath, F.R.C.S. London: 1871.
On the Genesis of Species. By St. George Mivart, F.R.S. London: 1871.
Report of the Carlisle Dispensary for 1869.
Report upon the Sanitary Acts as they affect the Town and Country Parishes of the Merthyr Tydfil Union.
The First Annual Report of the Sanitary Commissioner for Bengal for 1868. Calcutta: 1869.
Report of the Sanitary Commissioner for Madras, 1869. Madras: 1870.
Report of the Sanitary Commissioner for Bombay, 1869. Bombay: 1870.
Report on the Sanitary Administration of the Panjab, 1869. Lahore: 1870.
Diseases of the Rectum. By W. H. Van Buren, A.M., M.D. New York: 1870.
A System of Surgery. By various Authors. Edited by T. Holmes. Vol. IV. London: 1870.
Partial Paralysis from Reflex Irritation, caused by Congenital Phimosis and Adherent Prepuce. By L. A. Sayre, M.D. Philadelphia: 1870.
A Brief Commentary on the Construction and Conduct of Hospitals, founded on a general account of that at Exeter. By P. C. De la Garde, F.R.C.S.
Epidemiological Conclusions and Suggestions. By Gavin Milroy, M.D.

INAUGURAL ADDRESS

ON

THE CONDITIONS OF PROGRESS IN MEDICINE.

*Delivered before the Clinical Society of London,
January 27th, 1871.*

BY WM. W. GULL, M.D., F.R.S.,
President of the Society.

GENTLEMEN,—The trust which you place in my hands by making me your President, awakens in my mind a deep sense of the responsibility I incur in accepting it. If a life devoted to those objects at which this Society aims could give me confidence in the future, I should receive the honour you confer upon me more cheerfully and hopefully than I can now venture to do; but whoever shall strive to set before himself what has been done in clinical medicine, and foreshadow in his mind what remains to be done, and the difficulties of doing it, will be apt to be discouraged rather than elated at the prospect. I fancy that the Father of Clinical Medicine must have had somewhat similar thoughts when he selected for his first aphorismal utterances, "Life is short—experience is fallacious." I confess, however, that I think these expressions of Hippocrates give more help than could have been given by any protestations of confidence which he might have made respecting himself or his art. If Hippocrates were with us this evening, he might congratulate himself that, however short is the individual life of man, by associations like these it becomes perpetual, and ever young and hopeful; that, instead of the occasional activity of one mind, we can, by a society, insure the unceasing and varied co-operation of many minds.

It is one of the most striking characteristics of our time, that the individual is less and less, and associated activity more and more. But if the *vita brevis* of the isolated labourer is thus obviated, there arises in place of it the danger of desultory and undirected exertions, which may be fruitful only of the thorns and thistles of contradictory statements, and as barren of true results as are the limited and often prejudiced observations of a single observer. To counteract this it will, therefore, be my duty to ask your earnest co-operation for extending and perfecting the labours of the Committees of this Society for investigation of clinical and therapeutical questions.

By our present rules, the President has a right to nominate such committees; but it seems to me that it is his duty to invite any member, according to the bent of his inclination, either to initiate some kind of active inquiry or to co-operate with others in it.

By putting positive questions to Nature, we are more likely to find out her secrets than by waiting, however patiently, for her own revelation of them. The more narrowly and positively such questions are framed, the less equivocal must be the reply; and however feeble and dubious the response—inadmissible, perhaps, to any single ear, or in characters invisible to any single eye—it may be plain and distinct when repeated over and over again. The aid afforded by such questions and cross-questions, putting Nature as it were upon her trial, and winnowing her replies by the exactest methods of research, mental or mechanical, is, as Bacon says, comparable to the lever and the screw in mechanical operations. "If," says he, "men should enter upon mechanical works with naked hands, without the force and assistance of instruments—as they have not hesitated to enter upon the works of the intellect with the naked forces of the mind—small indeed would have been the things they would have been able to accomplish, however earnest and conjoined their efforts." "And if," he continues, "to dwell a little longer on this instance, and to look into it as into a glass, we should ask, if by chance any sober spectators should see men striving to raise a mighty obelisk without mechanical appliances, would he not say they were demented? But if, so failing, they should be confident of success by increasing their numbers, would he not think they were still more mad? But if they should consult together to make a selection, and to dismiss the weak, and only by the help of the vigorous should expect to accomplish their object, would he not think they were hopelessly insane? But if, further, not contented with this, they should establish athletic exercises and summon all thus prepared for the work, would he not cry out, 'These people have gone mad even with reason and prudence?'" And should not we be open to have a similar oppro-

brium cast upon us if, uniting ourselves into a Clinical Society, were contented to strive to accomplish the work before us without the assistance of the highest intellectual combinations and methods?

If the existence of this Society, ever recruiting itself, as I trust it will do, with young and devoted labourers, annihilates, as I have said, the first lament of Hippocrates, that "life is short," so I trust that our work will be so prosecuted that his subsequent statement, "Experience is fallacious," may no longer obtain. It is perhaps too much to hope that a growth which is indigenous to our minds, and which has shown so much vitality, should easily be rooted out. Hitherto, from the favouring influence of prejudice and self-love, nothing has equalled the exuberance of this sort of experience: no pernicious practice, no fanciful hypothesis, no unfounded dogma, but has been and is fed and maintained by it.

Experience in medicine is fallacious, because it is limited and imperfect; limited to few observations gleaned in some narrow area; limited to some season or short period of time; limited by the prejudice or interest or incapacity of the observer, or by defects in his methods of examination; and imperfect through our ignorance of the natural course of events, which leads us to attribute results to some accidental interference on our part rather than to the essential course of things; imperfect, also, because we are satisfied with that sort of experience which affords satisfaction to ourselves, and supplies some ready explanation to those who are dependent upon us.

It is in the nature of inquiries so complicated as those are with which medicine has to deal, that fallacies should at all points beset our path. Perhaps the sense of doubt arising from the fallacies of experience which weighed upon the mind of Hippocrates should also, like the whisperings of the slave in the conqueror's ear at his triumph, be ever present to us, even when our knowledge seems most assured.

In clinical medicine, the greatest corrective of fallacious experience is a true diagnosis—a diagnosis not only of the anatomical conditions, but such a diagnosis of the forces concerned as shall lay open before us a knowledge of the course which events will take. If the momentum and direction of a moving body be known, its course and the results of impediments upon it can be calculated. So if we would obtain any true experience of therapeutical measures, we must of necessity acquaint ourselves with the exact strength and tendency of the forces against which we operate. What voluminous records are there of cures and means of cure which are as valueless as the rags upon which they are printed! "What pains and expense," says Herschel, "would not the alchemists have been spared by a knowledge of those simple laws of composition and decomposition which now preclude all idea of the attainment of their declared object! What an amount of ingenuity, thrown away on the pursuit of the perpetual motion, might have been turned to better use if the simplest laws of mechanics had been known and attended to by the inventors of innumerable contrivances destined to that end! What tortures inflicted on patients by imaginary cures of incurable diseases might have been dispensed with, had a few simple principles of physiology been earlier recognised!" "But," he continues, "if the laws of Nature, on the one hand, are invincible opponents, on the other, they are irresistible auxiliaries: 1. In showing us how to avoid attempting impossibilities; 2. In securing us from important mistakes in attempting what is, in itself, possible, by means either inadequate or actually opposed to the end in view; 3. In enabling us to accomplish our ends in the easiest, shortest, most economical, and most effectual manner; 4. In inducing us to attempt, and enabling us to accomplish, objects which but for such knowledge we should never have thought of undertaking."

It is only through a perfect diagnosis that we can see in what direction therapeutical interference should be attempted. It is true that accident has sometimes aided us where knowledge has failed; but it is obviously unbecoming in intellectual creatures to satisfy themselves with such scattered fruits, when, by due culture, no doubt large harvests might be reaped. If, as Herschel says, knowledge saves us from futile and inglorious effort, it widely opens to us ways of success which are closed to ignorance. In the present imperfect state of medicine, that success may often be but partial; but even to that degree the amount of human suffering that may be avoided, and the amount of good that may be obtained, is in the total incalculable. It would be impertinent if I should attempt to exhibit before you the successes, partial or otherwise, of therapeutics; but I cannot forbear expressing our obligations to the sister science of surgery in all its departments. I assert that I have received as lively intellectual satisfaction, and have been as deeply impressed with the feeling that knowledge is power, whilst witnessing the effects of some surgical operation, as I have in contemplating the highest triumphs of physical or chemical science. It is perhaps to be regretted that medicine and surgery have been in any way dissociated. Happily, in this Society they are united. What

detriment surgery has received from the separation, others must say ; but medicine requires constantly quickening by the necessity of that exact anatomical observation which the problems of surgery amply supply. The tendency in modern medicine to increasing perfection in diagnosis is daily lessening the *hiatus* which has existed between the two branches of study, and pathological anatomy is largely confirming their identity. Clinical medicine requires ever increasing exactness in these researches.

In the reports with which we shall be favoured from the different members in this session, I feel sure that every effort will be made to give the observations contained in them the highest possible exactness of expression. This Society has two functions to fulfil: to exhibit the working of the most critical methods of research—to show, in fact, what clinical medicine should be, and to improve those methods. For myself, I am far from believing that he is the best observer who records the greatest number of facts, but he who has the perception which enables him to separate the chaff from the wheat—that which is essential from that which is accidental. In the nature of the case, such discrimination must begin somewhere; but *where* must be left to the intellect of the observer, or to the circumstances of his work. Treatises have been written on the laws for the guidance of physical research; but there seems to be but one rule that is universal—namely, that the student should be honest and skilful in the pursuit of truth. Honesty before skill. Then we may hope to go on towards completing the perfection sketched by Shakspeare, who, speaking of the physician, says: "His skill was almost as great as his honesty; had it stretched so far, would have made nature immortal, and death should have play for lack of work."

This law of skill in research, guided by honesty of purpose, we must work out with the best means at our command, ever striving for better. Where the scalpel will not reach, the microscope may reach; where the microscope will not help us, chemistry may help us; where chemistry fails, the refinements of physics may come in; and, where these fail, that finer power of the mind which enables us to deduce truth from history may lay open before us the workings of forces too fine even for that scientific exercise of the imagination which has lately been so eloquently commended to us, as shown by those hereditary tendencies to disease which as certainly take effect, and produce results as sharply defined and often as coarsely anatomical, as if their physical causes could be labelled and placed upon the shelves of a museum. But whilst, for the purposes of immediate practice, we must occupy ourselves with, and so far be satisfied in, completing and perfecting what we have already gained, a little, and but a little, reflection will be required to convince us how much more than this suffering humanity requires at our hands.

What unexplored regions are inviting our attention, will be obvious to any one who will look over the pages of any year-book of facts recording the labours in the different departments of medical knowledge. The perusal will leave upon the mind the sense of how little has any where been accomplished, and how far the lines of inquiry radiate and diverge. To take that commonest of all maladies, phthisis, it may be said to present a great chaotic field, distinct in nothing but in its mortality, and all but unexplored by science in respect of those steps and processes whereby the fatal issue is reached. The *Transactions* of this Society already contain some contributions towards a better clinical history of some forms of this disease; and I trust that each session more may be done towards tracking the earlier history of its different varieties; for, if anywhere in physic the principle *principiis obsta* be of value, it is probably here. I trust, however, I may not be understood as if our records of the coarser phenomena of phthisis were not more than enough. Under the generic term phthisis are included many different maladies; and, if the whole object of medicine were satisfied when these forms had been distinguished and the popular remedies prescribed, there would be no more to say; but clinical science revolts against this conclusion, and requires a still finer discrimination of the morbid processes in question, with information as to how they begin and by what means they may be obviated or hindered. There is something very suggestive in seeing one member of a family left in health and strength to old age, whilst all the members of the same family, coming either before or after, fall victims to this disease or its alliances; or in seeing exceptions made to its ravages through the intervention of some diverse pathological state, insanity, epilepsy, or rheumatism. Our clinical knowledge ought to show how this is determined, as from such knowledge prevention might be expected to follow.

Or to turn to another and equally extensive field of research—the large class of vascular degenerations, occurring mainly between the ages of forty and sixty. If the processes, near or remote, which bring about these morbid states of the heart and vessels, were more fully

elucidated, some part of the chapters which now treat of diseases of the brain, of the chronic diseases of the lungs, of the liver, and especially of the kidneys, might have to be rewritten. It seems probable that in a good deal of our clinical pathology we have mistaken the end for the beginning, and, being impressed chiefly by the more prominent or more easily demonstrable lesion, have regarded it as a cause, when it was but a part of another and antecedent state. I adduce these instances because I believe that, as with some other forms of chronic morbid changes, the early clinical histories are defective.

It is from *clinical* study alone that we can learn the beginnings of disease. Often, when the gathered clouds of the final storm have filled the atmosphere, it is in vain that we look round to see from what point of the heavens it began.

The apparently trifling ailments of to-day may, when we are able rightly to interpret them, foreshadow the coming of much graver events. For these inquiries, private practice affords the only opportunities. The record of individual cases, illustrative of the early traces of pathological change, would be of great value. Perhaps, as a rule, we have looked too exclusively to the wards of our hospitals, and to the records of *post mortem* examinations, to teach us our clinical lessons. This Society seems to afford special means for correcting these defects.

The opportunities of private practice, if carefully utilised, might soon solve for us many obscure problems. Take, for instance, the onset of infectious diseases. By a more accurate study of this stage, which can rarely occur in hospitals, we might learn through what ways the infection invades the organism, and thus might be enabled, if not to obviate its progress, at least to learn something more of the means for controlling it.

But I may not longer detain you with these details. Suffice it to say that any new fact, however apparently useless and disconnected, is worthy of a record. It may be, to use the language of embryology, the *primitive trace* in the development of a new form of thought and knowledge; or, to alter the simile, its meaning may not appear until the context is discovered. The superstitious worshipper of Islam preserves every scrap of writing, lest by destroying it he might mar a portion of the sacred text; let each one of us, engaged as we are in amassing materials of knowledge, treasure up every stray fact, convinced that it forms part of a precious record, which, if not decipherable now, will become legible by some subsequent addition. As the whole purpose of clinical medicine is the cure or alleviation of disease, the efforts of a Clinical Society can never, with success deviate from the prosecution of these practical and primary objects. The advancement of therapeutics in their entirety is the end we aim at. Happily it is no longer necessary to prove that therapeutics and the administration of drugs are not synonymous. It is an ancient saying in medicine that *Nature cures disease*; and we have learned in modern times that both in medicine and surgery it may often be our truest aim to secure our patients from interference until a healthy equilibrium is restored. The doctrine of physiological and mechanical rest in the cure of disease has vindicated and obtained for itself a permanent position in therapeutics. Every contribution to our transactions in illustration and maintenance of this doctrine will be valuable. If it often taxes the ingenuity of the surgeon to insure mechanical rest for an injured part, how much higher are the demands made upon our therapeutics to obtain physiological rest, or any degree of it, amidst the perturbations of disease.

It seems probable that a large number of acute diseases may be sufficiently treated by only following these indications of rest. Yet the greatest misunderstanding prevails both in our profession as well as with the public, respecting the objects pointed out, as if they were of so trivial a nature as to require no skill nor attention. Yet I might venture to assert that they challenge the exercise of the highest faculties, and still often leave us far from their perfect attainment. I may be excused for saying that the expression, *Nature cures disease*, is both a good and a bad expression. It is a good expression if it represent to our minds, however imperfectly, that a principle of compensation prevails throughout a living body, causing the disturbance of the physiological balance in an organ, to be corrected by a correlated change in it or in some other part, as, for instance, when the fainting heart feebly supplies the brain, and this centre of voluntary action failing, the patient falls down, and the circulation is restored. To say that *Nature cures disease* is a bad expression, if it create in our minds a metaphysical conception, as if there were in us some personal *anima* controlling the operations. The former use of the term is that for which we, as a Clinical Society, must ever contend; and our chief object is to encourage amongst ourselves those researches which shall show how Nature in this sense cures disease, and so have plainly before us the circumstances which should direct and control our therapeutical interference. Of equal antiquity with the expression which I have just quoted, is that more

famous one which must ever be remembered in a Clinical Society, that the two special objects of medicine are *to do good or to do no harm*. The latter alternative has, from Galen downwards, been thought a matter of too easy attainment; but doing no harm is not always an easy virtue in medicine. I desire, on this point, to call the attention of the members of this Society to the present state of our practice in regard to many chronic and acute diseases, that we may by improved records learn what is the value of positive treatment in many of them. As to the doing good by the administration of remedies, which is the more popular view of therapeutics, I need not say a word to stimulate exertion in this direction. We are all impressed with the importance of the subject; but it is to be urged that the cases which shall be brought forward to illustrate any treatment, or the effects of any particular drug, shall be so selected as to lead, as far as possible, to positive conclusions.

Gentlemen, I fear I have detained you too long; yet I cannot forbear expressing a feeling which I am sure is in every mind at this moment—that we ought to be thankful we are enjoying the blessings of peace, which enable us to meet on these occasions to encourage each other in the pursuit of knowledge, which we hope may contribute to the welfare and happiness of mankind. I earnestly trust these blessings may long be continued to us. The sure foundation of such a hope must ever lie in the fulfilment of that sentiment of one of our greatest heroes: “England expects every man to do his duty”—in the arts of peace as well as in the circumstance of war.

RECOLLECTIONS OF WORK IN AN AMBULANCE.

By WILLIAM MAC CORMAC, F.R.C.S.,
Surgeon to the General Hospital, Belfast.

VIII.

SEPTEMBER 13th.—Some short extracts from my diary of this date may not be uninteresting. I find it mentioned in this day's report that, after a busy morning's work, I walked out to see Dr. Frank at Balan, where I assisted him to disarticulate an arm at the shoulder-joint, and Mr. Blewitt to amputate a thigh. I also performed an amputation of the thigh myself. When I returned to Asfeld in the afternoon, I found a poor fellow who had been sent about from one ambulance to another since September 1st, having been wounded in the thigh on that day; and I performed amputation of the thigh in his case also. I find that 19,500 cigars were daily requisitioned from the inhabitants for the troops, and other things in proportion.

Sept. 14th. There were more operations to be performed again to-day, as indeed there were every day. Twelve o'clock was the hour upon which we had now fixed as the time for performing such operations as were required. At first they used to be done at all hours—indeed, as it were, all day long; but, for several reasons, it was convenient to fix upon a particular time as soon as we were able to do so. To-day I had occasion to excise two shoulder-joints and one elbow-joint, to amputate the thigh, and to perform excision of the knee-joint, the only instance in which I performed that operation. It proved fatal, just as, I believe, have all the resections of this joint during the present war.

Sept. 15th. I excised an elbow-joint, and amputated the thigh for a gun-shot smash of the femur. My thigh-amputation of the 13th at Balan proved fatal to-day. My first case of amputation at the hip-joint died also to-day, having survived the operation only four days. The femoral artery had been twisted. There was no hæmorrhage. I suppose this is perhaps the largest arterial trunk to which torsion has been ever applied.

We were all put on the alert to-day by the circumstance of double sentries being posted all round the ramparts. The drawbridge, which we had to cross on entering the hospital precinct, was raised in the evening; and some of our staff were shut out that night, as, not being aware of the change, they had remained till rather late in the evening in town. The alert was a false one. Bazaine was reported to have made that sortie from Metz which, in point of fact, he never did make, although opinions may differ as to the possibility of his having been able or willing to do so. From this time forth we were in a certain sort prisoners on *parole*. The sentries at the gate allowed the members of the staff to pass in and out during the day; but no one else, without special permission, could pass; and at night we were shut in as securely as in any fortress.

An incident, very unpleasant, and which might have been attended with the most serious consequences, occurred about this time. One of the junior members of the staff, who had recently joined, went out one morning in the dusk to forage for trophies. He passed into the deep wide ditch outside the ramparts by a covered way beneath them. He had not pursued his innocent avocations very long until the hail of the German sentry from one of the ramparts above recalled him to a sense of the situation. The unfortunate young fellow knew not a word of German, and but little more of French. Not much time, however, was lost in words or attempted explanations. The German soldier did not understand the nature of the appeal made to him, so he solved his difficulties by firing. The dusk and a not unnatural acceleration of his pace saved our young friend, who got round the sheltering corner of a bastion, and gained the covered way again in safety. It is perhaps unnecessary to add that this gentleman was very careful in future not to venture out much after dark. Of course we remonstrated about this rather summary treatment, and were told that the sentries had orders to fire at once on any one found straying out after nine in the evening, who could not give the countersign, or otherwise account for himself. The difficult circumstance about times such as these is, that a mistake, once made, is impossible to rectify.

Sept. 16th. To-day I tied the subclavian artery on the right side, for secondary hæmorrhage after amputation of the arm. The bleeding was stopped, but the poor fellow ten days afterwards died pyæmic.

CASE XLVI.—Louis Dessoyes, *maréchal du logis*, 2nd Artillery, was wounded on September 1st. His arm was amputated in the upper third on September 3rd, in the Eglise St. Charles of Sedan; and he was transferred to our care on September 9th. He was doing well until September 17th, when serious secondary hæmorrhage occurred, and we were obliged to tie the subclavian artery. I cut down upon its third stage in the usual way; and the artery was then occluded by twisting a loop of silver wire round it, instead of tying a piece of silk. Dr. Sims applied the silver wire with the dexterity and address which characterise all his operative procedures. The wound in the neck never gave any trouble. It healed up very kindly, and for some time we thought all would go well with our patient. By the 25th, symptoms of well marked pyæmia had become fully developed; on the 26th he was delirious; and on the 27th he died. We found, at the *post mortem* examination, abscesses in the left knee, left shoulder, right shoulder, and between the layers of the abdominal muscles. No internal abscess was discovered. The artery at the seat of ligature was carefully examined. A large firm clot occupied the vessel throughout the second stage up to the seat of ligature. In the distal portion of the vessel, hardly any clot was found. Had further hæmorrhage occurred in this case, it would have come, as usual, entirely from the distal extremity.

Sept. 20th. Six thousand five hundred of the wounded of the battles of August 31st and September 1st, which amounted on the French side alone to twelve thousand five hundred men, had up to this date been “evacuated” on Mezières, for distribution thence to different parts of France and Germany. These men were sent either to France or Germany, according to the category in which they had been arranged by the medical officers. Those certified as slightly wounded, and able to serve again in a month, were sent to Germany as ordinary prisoners of war. Those, however, who were classed as being gravely wounded, and, though capable of being transported, unable to serve their country for a space of three months, were allowed to return to their French homes without restriction. Doubtless, at this time, just after the disastrous capitulation of Sedan, the German generals did not anticipate a prolongation of the campaign for so long a period as the subsequent events have shown. The system of speedy “evacuations”, so thoroughly carried out by the German authorities by means of their admirable *Etappen* system, offers many advantages, by disencumbering the neighbourhoods of great battle-fields of the enormous masses of wounded which the gigantic scale on which some modern battles have been fought too surely produces. There are, however, the counter-vailing cases of individual hardship and death caused by the transport of men weakened by injury and disease through long distances, more especially when these have to be travelled during inclement weather.

The next few days were varied by visiting Balan and Bazeilles, where our detached ambulances were; assisting Drs. Frank and Blewitt to do some operations; inspecting some of their interesting cases; and in paying a visit to Bouillon, in the hope of getting there letters and newspapers.

And now to continue, after this digression, the account of our wounded at Asfeld: I find that in all we had under treatment 229 cases of injury of the lower extremity, of which 51 terminated fatally. The following table gives an analysis of these cases, and of the operations that were performed on account of the injuries received.

Table of Injuries.

	Cases.	Deaths.
Penetrating Wound of Hip-joint	1	1
Penetrating Wounds of the Knee-joint	12	9
Penetrating Wounds of the Ankle-joint	3	2
Wounds around the Knee-joint, not penetrating the Articulation	17	1
Wound around the Ankle-joint, not penetrating the Articulations	5	—
Gun-shot Wounds of the Thigh and Buttock, without Fracture of Bone	75	9
Gun-shot Wounds of the Leg, without Fracture	31	—
Gun-shot Injuries of the Foot	27	3
Gun-shot Fracture of Femur	20	12
Gunshot Fracture of Tibia or Fibula	34	14
Simple Fracture of Leg	4	—
	229	51

Table of Operations.

	OPERATIONS.			DEATHS.		
	Prim.	Sec.	Total.	Prim.	Sec.	Total.
Disarticulation of the Hip-joint	—	2	2	—	2	2
Disarticulation of the Knee-joint	—	3	3	—	3	3
Syme's Amputation	—	1	1	—	1	1
Resection of Knee-joint	—	1	1	—	—	—
Amputation of the Thigh	6	8	14	4	6	10
Amputation of the Leg	17	2	19	9	1	10
Partial Amputation of the Foot	7	—	7	—	—	—
	30	17	47	13	13	26

These tables point to some interesting conclusions. The great mortality of wounds of the knee is only too apparent, nine out of twelve dying. In but one case, because it appeared very suitable, did I attempt resection. A speedily fatal result ensued. Of no rule in military practice can there be less doubt, I think, than that immediate amputation should always be practised in gun-shot wounds of the knee clearly implicating the articulation. When amputation has, however, been delayed through any cause, the efforts of nature should generally be allowed free scope, since secondary amputations of the thigh are exceedingly fatal. Cases where the knee-joint is really opened require to be discriminated from those in which a ball, deflected by the strong fibrous capsule of the articulation, passes more or less completely round it without penetration. We had seventeen such instances, one only of which proved fatal. Of our twenty cases of gun-shot fracture of the femur, twelve died. Those which were not amputated were treated by the application of the long splint to steady the limb, and extension by means of a weight attached to the foot; the weight of the body, and its friction against the bed, affording sufficient counter-extending power. In a few cases, there ensued very considerable deformity and shortening; but in some, on the other hand, the result was as good as good could be.

CASE XLVII affords an example of what I have just stated. Captain Thouvenel, 89th Regiment Infantry, was wounded on September 1st by a ball, which entered on the inner side of the right thigh, close to the perinæum, and, after traversing the femur just beneath the lesser trochanter, emerged on the outer side of the thigh. There were, when first examined, two inches of shortening and great deformity. The fracture must have been almost a transverse one; for the bone, after considerable extending force had been applied, went into its place with a jerk, and there remained. He recovered without a bad symptom; and the most accurate measurements failed, six weeks afterwards, to detect any appreciable amount of shortening. A result such as this is sufficiently rare after any form of fractured femur, and is even considered by some surgeons as all but impossible.

CASE XLVIII—Edouard Grundler, 2nd Infantry of the Marine, had his right thigh fractured by a ball in the upper third. He recovered perfectly with about two inches of shortening.

CASE XLIX.—Louis Denoyer, 37th Line, had his right thigh fractured in the upper third. The shortening in this case amounted to one inch and a half. I have heard that he has gone home to his friends quite convalescent.

CASE L.—Jean Goutard sustained a fracture high up in the left thigh. There were great comminution, distortion, and tardy consolidation of the fracture. He was slowly improving when I last heard of him.

In somewhat strong contrast to our experience is that of Stromeyer in his ambulance at Floing, close by Sedan, where a good deal of hard fighting took place. He treated there thirty-four fractures of the femur; and in twenty-four there was a prospect of cure; four were

doubtful cases, and only six died. His table of results in fractures of the leg is also very satisfactory. Out of thirty-one fractures of tibia or fibula, or both, caused by gun-shot injury, only three died, while the result was doubtful in six instances. Out of thirty-four similar cases at Asfeld, of fractures of the leg, so many as fourteen perished.

The mortality after operations in the lower limb was very great at Asfeld. I may say almost those only recovered in which the operation was performed immediately after the receipt of injury. Our secondary operations nearly all perished. Previous privation, the exhausting influences of the wound itself, added to the unhealthy condition of the hospital at the time when these operations had to be performed, made it difficult for a single one to escape. 57.4 of all the cases of operations in the lower extremity died. In contrast to this, also, Stromeyer's table, as may be seen, shows a marked difference.

FIELD-HOSPITAL OF STAFF-SURGEON-GENERAL STROMEYER.

Condition of the Sick at Floing, 24th and 26th September, 1870.
121 patients—64 German, 57 French.

	Total.	Prospect of cure.	Doubtful.	Deaths.
Fractures of the Skull	2	2	—	—
Face-wounds	1	1	—	—
Penetrating Chest-wounds	14	7	7	—
Contusion of the Crown	1	1	—	—
Fracture of the Crown	3	—	2	1
Wounds of Small Intestine	1	—	1	—
Wounds of Liver	1	1	—	—
Wounds of Soft Parts of Pelvis	1	1	—	—
Wounds of Bladder	1	—	1	—
Wounds of Soft Parts of Shoulder	2	2	—	—
Wounds of Soft Parts of Upper Arm	1	1	—	—
Fracture of Collar-bone	1	—	1	—
Fractures of Upper Arm	3	3	—	—
Wounds of Elbow-joint	2	2	—	—
Fractures of Fore-arm	1	1	—	—
Wounds of Hip	2	2	—	—
Wounds of Soft Parts around Femur	5	5	—	—
Fractures of the Femur	34	24	—	—
Fracture of Femur and Tibia	1	1	4	6
Fracture into Knee-joint	7	3	1	3
Injury to the Sciatic Nerve	1	1	—	—
Wounds of the Soft Parts of the Leg	1	—	1	—
Fractured Leg	7	6	1	—
Fracture of both Bones of Leg	18	11	4	3
Fracture of Tibia	5	3	2	—
Fracture of Fibula	1	1	—	—
Fracture of Tibio-tarsal Joint	2	2	—	—
Foot-Wound	1	1	—	—
	121	82	26	13

Operations.

1. Ligature of Femoral Artery	2	—	1	1
2. Extraction of Large Splinters of Shell	6	3	1	2
3. Resection of Elbow-joint	1	1	—	—
Resection of portions of Femur	1	—	—	1
Resection of portions of Tibia	2	1	—	1
4. Amputations.—Primary	10	9	1	—
Double	1	—	—	1
Secondary	14	8	4	2
5. Disarticulation of the Hip-joint	1	—	1	—
	38	22	8	8

On September 1st, there were 1200 wounded in Floing. On September 5th, the sick numbered 635 patients: 300 German and 335 French. Twenty primary amputations had so far been performed.

I have published these statistics here, having been given them by the veteran surgeon himself, on the occasion of a visit to him, both on account of their intrinsic interest, and because they serve as a means of comparison with my own tables. I have little doubt that much of the difference in the results may be explained by the circumstance that most of the patients at the ambulance of Floing were treated practically in the open air. A number of temporary houses or huts, constructed of shingles or rough boards, were arranged on the lawn of a chateau near the village. There were no windows in these, but the sides opened all the way along by means of large *louvre*s; and, when these were all raised, the entire circumference of the hut was open. There was a door at each

end, a stove in the centre, and ten extempore wooden beds along each side. These *Baraken*, as they are termed, form an admirable *Feld-Lazareth*. They are only suitable, or intended, for temporary occupation; but for such a purpose are, I think, very suitable, and much better than tents, which are liable to numerous inconveniences. Stromeier had a large staff of surgeons and assistants under him; and his duties as *Generalstabsarzt* did not confine him to one ambulance. The great civil surgeons who hold the highest posts in the German armies visit the different field-ambulances at fixed times, when there are regular consultations with the surgeons attached to them on all cases of importance; and at these visits the operations are performed, which are decided upon after consultation as being needful. There can be little doubt that the advantages of such a system, both to the army medical officers themselves and to the patients under their charge, in having the counsel and assistance, at all times and in all cases of difficulty, of the most matured surgical advice in the country, are very great. There is no undue interference, however; and I have not heard that any jealousies are excited, or that the system does not work to the great benefit of all concerned. Certainly, in the case of Stromeier, who is beloved and respected by all who come into contact with him, nothing could be more harmonious than the relations which subsisted. On the occasion of my visit to him, he insisted on my performing an amputation of the thigh, which was required for an injury to the knee. We had afterwards a long conversation together, in the course of which he asked me if I had arrived at his opinion that the practice of military surgery was unsatisfactory in the extreme. He said he was now passing through his third campaign; and that the longer he lived, the more deeply was he alive to the seemingly unavoidable evils which attend the practice of surgery during war.

CASES OF FRACTURE OF THE BASE OF THE SKULL: WITH REMARKS.*

By C. E. PRIOR, M.D., Bedford.

IN these cases I have no novelty of treatment to advocate, or theory of interest to propound; I wish simply to set before you a plain unvarnished history of several cases of an injury not very infrequent. A history of this sort, collected from a rather extensive field, may serve to qualify some important points of diagnosis, and may lend accuracy to the prognosis of one of the most formidable accidents to which the human frame is liable. My cases are collected partly from my own experience as a coroner, some from my own practice, some communicated by my friends Mr. Thurnall and Mr. Johnson, both of Bedford.

CASE I.—Fracture of the Anterior Fossa from Blows with Fists: Death within Six Hours: Post Mortem Examination.—In May 1863, about 11 P.M., a gentleman and lady, who had been spending the evening with friends, were returning home through the back streets of Bedford, when the former was insulted by two ruffians who had been "on the spree." On his attempting to defend himself, he was struck violently on the face by both, and knocked down. He rose with difficulty, and was followed by them for some distance, when the assault was renewed with at least equal violence, and he was knocked down again. He lost much blood at both places. Being at length at liberty to proceed, he went to the residence of the chief constable of the county, and endeavoured to ring the bell; but his wife said she thought he would have died on the doorstep. Soon after this, he reached home; and a medical man was summoned, on whose arrival, however, he seemed better. Hæmorrhage had nearly ceased; and he went to bed. Internal hæmorrhage probably took place soon after this, and he died rather suddenly about 4 A.M.

The *post mortem* examination showed a slight wound below the left eye; contusions of the forehead and nose, and under the eyes; fracture of both nasal bones, and clotted blood in the nostrils, and bruises on various parts of the body. There was extravasation of blood between the pericranium and frontal bone above each orbit; a clot of about four ounces was effused over the occipital bone, and about two drachms between the arachnoid and pia mater. There was also effusion on raising the calvarium; and a zigzag fracture of about an inch and a half long extended across the left orbital plate of the frontal bone, with some depression.

CASE II.—Fracture of Middle Fossa (Pars Petrosa) from a Fall on the Vertex: Death in Three Days: Post Mortem Examination.—A boy, aged 9, fell from a tree in a village four miles from Bedford.

When taken up, he was bleeding in a stream from the left ear, and there was a compound fracture of the left thigh. When found, he requested that he might be laid down. He was taken to the Bedford Infirmary. He was sensible on his arrival there, and continued so for some hours; then the pupils dilated, and a copious colourless fluid escaped from the ear. He remained insensible until his death, three days after the injury. On *post mortem* examination, a fracture was found extending through the petrous part of the temporal bone, and upwards through the squamous part; the brain was much congested, and suppuration had commenced immediately over the fracture.

CASE III.—Fracture of Middle Fossa (Pars Petrosa) from a violent Blow on the Head: Recovery.—J. S., an engine-driver on the London and North Western Railway, left his post at the engine at some part of the line between Bletchley and Bedford, and, crossing over the top of the carriages, arrived at one in which there were some persons that curiosity induced him to watch. It is supposed that, while he was leaning his head over the side of the carriage to look into the window, his head came into contact with the brick-work in passing under one of the railway bridges. On the arrival of the train at Bedford, the man was found on the top of the carriage quite insensible; he was at once taken to the Infirmary in an unconscious state; his head was then shaved, and he was placed in bed. No fracture of the upper part of the skull could be detected. Blood escaped copiously from one ear, and this was followed by an escape of a considerable quantity of cerebro-spinal fluid. He remained insensible for a fortnight; breathing was stertorous for the first few days. About the fifth day after the accident he had three or four epileptic fits. About the fourteenth day, he became slightly conscious, and from that day gradually mended; and a deafness from which he had at first suffered was ultimately lost. He left perfectly well at the end of three months, and from that time to the present has suffered from no head-symptoms of any kind. He follows his old occupation as an engine-driver. The treatment was of the ordinary kind; cold to the head, counterirritants and warmth to the feet, and mercury to slightly affect the gums.

CASE IV.—Fracture of Middle Fossa (Pars Petrosa) from a Fall on the Vertex: Recovery.—A boy, aged 12, subject to epilepsy, was in a tree getting birds' nests, and is supposed to have fallen from the tree with his head downwards, in one of his fits. He was brought to the Bedford Infirmary unconscious, and suffering loss of blood from the ear; the blood was followed by clear fluid, which continued to escape for some days in largish quantity. After remaining unconscious for several days, he began slowly to regain his senses, and continued to improve until he left the hospital. I believe his recovery to have been perfect and permanent.

CASE V.—Fracture of Middle Fossa (Pars Petrosa) from Fall on Vertex: Death after Three Days.—T. W., aged 29, was engaged in painting a portion of the Bedford Union Workhouse. He had occasion to ascend a ladder to a height of forty-five feet; the ladder broke at about twenty-five feet from the ground, and he fell, striking a high wall as he came down, which turned him so that he fell with the upper part of the head on a brick pavement. I found him, on my arrival, bleeding from a wound above the right eye, and from the ears. He was in a state of collapse, and quite insensible. On the next day, a discharge of clear fluid came on from the left ear, which was very profuse, as much as an ounce to an ounce and a half passing in an hour; nevertheless, he appeared a little better, and was able slightly to recognise persons; but he afterwards gradually sank, and died three days and a half after the accident. No fracture of the upper part of the skull could be detected.

CASE VI.—Fracture of Middle Fossa (Pars Petrosa) from a Fall on the Head: Recovery.—W. P., aged 55, labourer, was knocked down in a fight at Sharnbrook on June 4th. He said that his head went on to the pavement with a bump, and rebounded. He was admitted into the Bedford Union Workhouse on June 7th, bleeding from the left ear, confused, and suffering great pain in the head; pulse 84. There was great deafness; but this, he said, had already been the case. The treatment consisted of cold to the head and calomel with aperients. A discharge of clear fluid from the ear came on June 8th; a dessert-spoonful passed in twenty minutes, probably, therefore, several ounces in twenty-four hours. He was removed to the Infirmary on June 9th: after his admission there the discharge of fluid gradually abated, and he slowly and partially recovered. He was readmitted into the Workhouse on July 2nd, still very deaf, and complaining of giddiness and pain in the head. He left the house on July 19th in that condition; and after some days he returned, not much better.

CASE VIII.—Fracture of Middle Fossa and Pars Petrosa by a Fall on the Vertex: Death in Four Days.—J. G., aged 33, was thrown out of a runaway cart, and fell on his head. While he was in this position, an

* Read before the South Midland Branch.

empty cart appears to have gone over him, at Kingston, three miles from Bedford. He was immediately taken to the Bedford Infirmary. On his admission, he was slightly sensible. There was a superficial cut on the back of the head, and a copious flow of blood from the right ear. On the following day, clear fluid began to escape from the ear, and continued to do so. The same day he was better, and still better on the third. On the fourth day he became sleepy; comatose symptoms set in, and he died early on the fifth day. On *post mortem* examination, the posterior surface of the petrous bone was found fractured across; there was also a considerable clot of blood (an ounce and a half to two ounces) between the dura mater and the skull on the left side; also considerable recent inflammation on the under surface of the cerebellum.

CASE IX.—*Extensive Fracture of Base of Skull from Violent Pressure on Both Sides: Death after Two Hours.*—W. F., an agricultural labourer, aged 34, fell from the shaft of a waggon on which he was sitting driving at Bromham, Bedfordshire, when the waggon-wheel ran over him near the head. When taken up, he was insensible, bleeding from both nostrils, and from the right ear. He died immediately after admission to the Bedford Infirmary, about two hours subsequently to the accident. On *post mortem* examination, there was found a large quantity of extravasated blood on the surface of the brain, the side of the skull fractured through the squamous portion of the right temporal bone, and the base extensively fractured through the petrous portion.

CASE X.—*Extensive Fracture of Base of Skull from Violent Pressure on both Sides: Recovery.*—About twenty-five years since, a bricklayer had his head jammed between two buffers of a train (cracked like a cocoa-nut, in fact). Upon his arrival at the Bedford Infirmary, he was quite insensible, with blood flowing from both ears, the nose, and mouth. For several days after the accident, there was a watery discharge from both ears. Consciousness returned in two or three weeks, and he progressed favourably but slowly, and left the Hospital in about five months. During the time he was in the Infirmary, he suffered from severe pains in the head, which continued for a long time after he was discharged, and the muscles on the right side of the face became paralysed. He is at the present time following his usual employment as a bricklayer, and is in good health; but there is still want of power in the muscles of the right side of the face.

CASE XI.—*Extensive Fracture of Base of Skull from a Violent Blow, and Lateral Pressure: Death.*—T. S., a child aged 5, in the summer of 1867 was watching the men at work at the Midland Ouse Bridge at Bedford. One of the men engaged was carving a balk of timber, when the iron rod broke, and the end of the balk fell on the child's head, crushing it into the ground. Death was almost instantaneous. Blood flowed abundantly from the mouth and ears. On examination, no fracture could be found at the upper part of the skull; but it was detected at the junction of the occipital with the parietal bone, and probably extended across the base of the skull.

The last three cases are examples of the greatest degree of violence which this part can sustain with the faintest possibility of recovery. In each the violence was excessive; in each pressure operated from both sides; in one, death was almost or quite instantaneous; in another, the patient survived for two hours; in the third astonishing, and, I should think, almost unique case, the subject is living to this day.

CASE OF CARBOLIC ACID POISONING.

By ALEXANDER OGSTON, M.D.,

Assistant-Professor of Medical Jurisprudence in the University of Aberdeen.

ON October 26th, 1870, Patrick McGrath, aged 47, sergeant-instructor of volunteers, Tarves, found in a rifle-shed a bottle of crude carbolic acid, part of which he swallowed, in mistake for bitters or other fluid. It is calculated that he swallowed, at most, an ounce or two of the fluid. This, when examined, seemed to be of considerable strength, crude, black, and oily. He then proceeded to a druggist's shop, but left this at once, without taking any drug. Shortly afterwards, he was found lying insensible, and was taken to Dr. Irvine's house. Dr. Irvine kindly handed me his notes of the case, which are as follows.

"Last night, October 26th, P. McG. was brought to my house at 5.30 P.M. He was reported to have been accidentally poisoned. He had a strong smell of carbolic acid, was unable to speak or walk, and was quite unconscious and in a state of apparent apoplexy, with stertorous breathing and puffing of the lips at each expiration. The pulse was not much disturbed. The heat of surface was natural. I laid him on a couch, covered him warmly, and administered castor-oil to dilute

and carry off the poison." The bottle containing the poison was distinctly labelled "Carbolic Acid, Poison." The notes continue: "On coming back, I tried with my patient olive-oil and a powerful emetic, which had no effect. I then sent for my son, who brought a stomach-pump; it would not work, and was consequently not applied. Subsequently, carbonate of ammonia and brandy were tried to no purpose. The patient's lips, gums, and tongue were white, as if sodden. After he had been laid on the couch, there was for three or four hours no muscular movement at all. The eyelids were closed, and the pupils contracted to the size of a pin-point. The first indications of returning sensibility were in the eyelids. About 12 o'clock, he began to open his eyes to some extent. Subsequently, he moved his arms, then his feet and legs; and afterwards made an attempt to raise his shoulders. After this, the pupils gradually expanded, but never became large. He began to speak, and asked for cold water to drink; but he never acquired complete consciousness. The next phase was affection of the lungs. There was very hard and laborious breathing, and difficult muco-purulent expectoration. After some time, the breathing became easier, just as suddenly as the coma had improved. He then complained of severe pain in the back. The pulse, which at first was not much disturbed, ran up to 84, 90, 96, and 106—not always alike, but fluctuating. Respiration from 46 to 48. At 2 o'clock in the morning, he passed naturally a quantity of very dark coloured urine, having the smell of carbolic acid. He afterwards attempted again to pass urine, but without success. No real reaction ever took place, notwithstanding the frequent use of warm applications. The brow, face, and hands were covered with cold clammy perspiration. Collapse came on, and at 7 A.M. death closed the scene, after thirteen hours and thirty-five minutes of suffering."

On proceeding to examine the body thirty-two hours after death, it was found in the following state. Rigor mortis was present. There was lividity of the back parts, and of the front of the neck and chest. The face was sallow. The pupils were natural. Watery froth and yellowish fluid, smelling of carbolic acid, were present at the mouth and nose. There was a clot in the superior longitudinal sinus. The dura mater and arachnoid were congested, the blood smelling of carbolic acid. Serum, with a distinct odour of carbolic acid, was found in the subarachnoid tissue and in the ventricles. The cineritious brain-matter was pinkish in hue. There was intense congestion of the vessels on the under surface of the pons Varolii and medulla oblongata. The mucous membrane of the mouth, throat, and gullet was unnaturally white and sodden in appearance, and at parts was soft and easily detached. There were two fluid-ounces of thick brownish pulp, smelling of carbolic acid, in the stomach. At its greater curvature, the mucous membrane of the stomach was studded with hard, reddish, and elevated points, of the size of small shot, without any marked congestion around them. Similar but smaller points existed on other parts of the stomach—showing, however, a more linear form, and tending to follow the course of the vessels. The stomach was otherwise natural, or perhaps a little more vascular than usual. Portions of the small intestine were slate-coloured, especially in the duodenum and upper part of the jejunum, but otherwise natural in every way, and containing a brownish pulpy matter. The salivary glands, pancreas, and mesenteric glands, were all pale. The heart was healthy, and full of dark firmly clotted blood on both sides; the right side containing four, and the left side two ounces. A minute fibrinous clot was found in the pulmonary artery, imbedded in a large black clot. The trachea was congested, and contained fluid similar to that found at the mouth and nostrils. The lungs were bulky and very œdematous. Fatty patches were present on the upper surface of the liver. The gall-bladder was enormously distended with bile. The spleen was soft; the kidneys fatty. Four ounces of turbid urine were found in the bladder. The blood, urine, and solid textures of the body, all smelt of carbolic acid. The blood was every where very firmly clotted.

ON SYPHILITIC RENAL DROPSY.

By S. MESSENGER BRADLEY, F.R.C.S.,

Lecturer on Human and Comparative Anatomy, Royal School of Medicine and Surgery, Manchester.

MEDICAL reasoning is too often hastily deductive in character; in other words, we too often reason from the particular to the universal, and rush from an unproven hypothesis to an erroneous and dogmatic conclusion. This constitutes the very sin of the Aristotelian method, and, if followed constantly, would bring medical science into equally well-deserved disrepute, as it did the old Grecian philosophy.

Still, reasoning thinking men will draw deductions; nay, more, we

may venture to say that most of the brilliant discoveries of medicine have been made by following this mode of reasoning, rather than attained by the slower but surer method of induction. The chief thing to guard against in deductive reasoning is the mistaking of a mere inference for a logically proved conclusion. So long as we accurately see the direction in which our inquiries and experiments should lie that are needed to verify our conclusions, there is nothing to be deprecated in making deductions, or in publicly stating them. I make these remarks because the following paper is in great measure of this deductive character in its reasoning, and I might be blamed for drawing the public attention to it before collecting much experimental illustration of its truth or falsity. This, indeed, I should have done had my own opportunities of research been sufficiently large for the purpose; but as they are not, and as at the same time I believe the matter to be of vital importance, I am anxious that it should be worked out without unnecessary delay, and by many rather than by one, knowing that if untrue it will speedily come to nought, believing that if true it will prove of value to the health of nations. My communication consists of the statement of a case, and a deduction from it. The case is as follows.

On October 2nd, 1870, I saw the child of Mrs. B., 212, Stockport Road, Manchester. The child (a girl) was four months old. It was covered with syphilitic psoriasis, which had first appeared a week before. The face, arms, and legs were œdematous, readily pitting on pressure. The mother had only noticed the dropsy the day before. The urine was highly albuminous (four-fifths albumen in test-tube). The microscope revealed the presence of numerous epithelial and granular casts. *There was no history of any possible contact with the poison of scarlatina.* Hydrargyrum cum cretâ was given in two-grain doses twice daily, and a little unguentum hydrargyri ordered to be rubbed into the abdomen each night.

Progress of the Case.—The syphilis began to pale and fade away in the course of three or four days before the action of the mercury; and, *pari passu* with the subsidence of the cutaneous syphilid, the number of urinary casts became fewer and fewer, and the quantity of albumen steadily diminished, so that in the course of a week it was reduced from four-fifths to one-third in the test-tube. So the case went steadily on from good to better, and, in fine, after the treatment had been persevered in for three weeks, the albumen in the urine and eruption on the skin had entirely disappeared, the cellular tissue was free from dropsy, and the microscope failed to reveal the presence of any abnormal element in the urine.

Comments.—There is little difficulty, I conceive, in connecting the syphilis and albuminuria in this case in the relation of cause and effect. By way of further evidence on this head, I may state that, out of twenty cases of hereditary syphilis in which I have since examined the urine, no anasarca being present, albumen was detected in two. This fact is interesting, and to a certain degree important. The discovery that such a condition as renal dropsy is an occasional attendant upon congenital syphilis, is in itself of perhaps sufficient moment to render this case noteworthy, but I think that what the case suggests is far more important than what the case proves. In a word, the deduction which I draw from this case is that the syphilitic poison, floating about in the circulatory system, is capable of bringing about those renal changes which result in the granular or waxy kidney; that chronic albuminuria very often means the presence of syphilis in the blood; and that therefore, as a matter of course, the therapeutic indication follows, that the disease depending on such a cause is to be combated with mercury, rather than with the diaphoretics and diuretics, which form little more than the playthings of the physician in his present treatment of this generally fatal complaint.* Nor need the pallid face and low vitality of his patient cause the most timid practitioner to shrink from giving mercury in such cases as these, supposing them to exist. The good effects of the drug are, to say the least of it, very frequently procurable by the administration of doses so small as in no way to interfere with the health of the individual; e.g., grain doses of blue pill may be taken nightly for a lengthened period, without any other effect upon the animal economy than of melting away any manifestations of syphilis which may chance to be present.

I earnestly hope that the truth of this deduction may be carefully tested by impartial men, so that once and for all it may take its place among the facts of medical science, or be for ever buried in the mighty limbo which holds all exploded medical errors.

* Dr. Dickinson (*Pathology and Treatment of Albuminuria*) considers that protracted suppuration is almost the sole cause of the waxy kidney, which he accordingly terms "Depurative Infiltration". He assigns as the causes of granular degeneration, alcoholism, gout, heart-disease, and lead poisoning. Dr. Grainger Stewart (*Bright's Disease*) mentions syphilis as a cause of the amyloid form of disease; but does not advise mercury as a remedy. He does not allude to syphilis as a cause of any other form of kidney-disease.

ON THE TREATMENT OF SUPPURATING GLANDS IN THE NECK BY FREQUENTLY REPEATED TAPPING.

By LAWSON TAIT, F.R.C.S., Birmingham.

IN the practice of operative surgery we often have a condition to consider which, from its greater frequency of occurrence and the great stress laid upon it by the patients, may be considered as being of importance secondary only to the saving of life and the diminution of pain; and when I say that I speak of the question of "good looks", I believe that few will differ from me. Most serious operations are frequently risked for no greater reason than the "look"; and much of a surgeon's reputation may be lost, or much may be added to it, by his success in avoiding disfiguration in his treatment of any deformity or malady. One of the most distinguished of living surgeons gave me his opinion, in a recent conversation which I had with him, that in our profession we make money very much more in proportion as we have to deal with utility or ornament, than with life. The income of the dentist or the oculist may reach a fabulous sum, because the teeth and eyes involve utility and ornament essentially; while the general surgeon is called in late and seldom, and gets much less remuneration when simply life is at stake. This may seem paradoxical, but it is none the less true. When patients are in good health, they will give much to look well and feel comfortable; but, when dangerously ill, they will count the cost with much greater narrowness.

It is, however, not with a mere pecuniary object that I now draw attention to a means of obviating deformity to a great extent, but with a view to do that which is legitimately within the ambition of every surgeon—to advance his profession and its extent of usefulness. Suppurating glands are common enough in the experience of every one, and the routine treatment of cod-liver oil, iron and quinine, iodine and poultices, is seldom departed from. Differences of opinion exist as to whether they should be opened early or late, or not interfered with at all; but, whichever way this part of the treatment is conducted, the same unsatisfactory ending in a disfiguring cicatrix is the inevitable result. The "look" of the thing is bad; and from the popular notion that every scar on the neck indicates "scrofula", many a poor mother's life has been embittered, many a poor child's prospects seriously interfered with, owing to the ineradicable neck-mark. It is considered a great triumph if the patient be a boy, and the mark within possible reach of his beard; but if a girl, even with the ingenious appendages provided by the *coiffeur*, the ever present slur cannot be hid, and the unfortunate bearer, at the dinner-table and in the ball-room, is ever painfully conscious of the direction of neighbouring eyes. This objectionable condition may be avoided in very many cases by the careful perseverance in a plan of treatment which I have now adopted for some years, with most satisfactory results. It consists simply in tapping a gland as soon as I have determined that it contains pus, and in continuing this treatment until the cavity no longer secretes. The means by which I effect this, is the little instrument known as Dr. Alexander Wood's morphia-syringe, and which I used for this and other similar purposes long before I had ever heard of the recently devised aspirators. Only two precautions are necessary; and these are, never to introduce the needle twice at the same spot, and to introduce it very obliquely into the abscess, entering it at least half an inch from the margin of the tumour. As a rule, the direction must be from behind forwards, but occasionally it may be done from before backwards; and it almost always may be effected from above downwards, or from below upwards. The number of punctures sometimes required may stagger some who read this; but I have had to persevere till I have made as many as fifty punctures, at intervals of from one to ten days, before the treatment was successful, the success being constituted by the complete disappearance of the tumour, without the skin ever breaking. The amount of satisfaction which the patients have expressed at being saved the disfigurement of a gland-mark, I have often found to be ample repayment for the great amount of trouble. Cases of the successful issue of this treatment I could cite in great numbers, and my failures have not been many. One of the former will, however, answer every purpose, and I select it principally because the patient is the son of a well-known provincial physician, who placed him under my care in order that the treatment might be carried out. He was a tall, rapidly growing lad of fourteen, and to his own courage and patience the good result is in no small degree to be attributed. In March last, whilst bathing in the Thames, he was chilled, and soon afterwards a large cervical swelling appeared on the left side. He was placed under my care in the beginning of May, when I ascertained the presence of pus,

and at once tapped the swelling. The tapping was repeated every two or three days until the end of July, and after that about once a week, until the sac had been emptied twenty-four times. At the end of the series of operations, only a very slight discoloration was left over a spot not larger than a coffee-bean; and, as the skin had never been injured here, this will in time entirely disappear. Had this abscess burst as such abscesses are usually allowed to do, the mark would not have been covered by the beard; and I am inclined to regard this as a triumph in the surgery of æsthetics.

THE TREATMENT OF ACUTE RHEUMATISM BY MORPHIA INJECTION.

By R. GILLARD, Esq., Hovingham, Yorkshire.

IN a recent paper "On the Abuse of Hypodermic Injections of Morphia", Dr. Clifford Allbutt says: "Still I cannot rid myself of the notion that in three cases of acute rheumatism and one of acute gout which have come under my notice, the very bad result was due to the treatment by injection of morphia alone." In the communication which I am about to make, I feel that it would be wrong to draw conclusions too hastily from a single case; yet, from long experience of that too often (in spite of all treatment) tedious and most painful disease, acute rheumatism, I feel that if we can secure, in the hypodermic injection of morphia, not only complete and immediate relief from severe pain, but an almost certain remedy for the disease, it will prove an inestimable blessing to suffering humanity. I may say that, on mentioning the case to a friend of mine, an eminent practitioner in Leeds, he also told me that he had noticed the same admirable effect of the remedy in acute rheumatism. However, I give a very brief account of the case for the consideration of my brother practitioners, in order that it may be fully tried; and my impression is, that it will be found a valuable remedy.

I was, on November 1st, called in to attend A. B., a young lady, aged 11, who was suffering from a severe attack of acute rheumatism. She had a pulse of 140, injected eyes, a furred tongue, great heat of skin, and profuse acid perspiration. At first, the ankles only were affected; they were swollen and painful; then the wrists, elbows, knees, and shoulders were equally affected. She was crying out with the severe pain, and had had no sleep for several nights. I adopted my usual plan of alkaline treatment with morphia to relieve pain, and, if possible, secure some sleep; with occasional aperients, and wrapping up the affected joints in cotton-wadding. I found my treatment perfectly useless. My patient became worse every day till the 5th November, when the agony she was suffering was dreadful; she had not a moment's ease, and got no sleep, and she was nearly exhausted from severe pain and want of sleep. On Saturday, November 6th, I injected a quarter of a grain of morphia into the forearm, with great relief; but on the next day (Sunday), as she had had a very bad night, and was still suffering very severe pain, I again injected morphia (half a grain). This time it produced almost marvellous effects. In a quarter of an hour, the pain was completely gone; she had a very good night, and the next day the joints were all better. Before, she could scarcely bear the weight of the bedclothes, but could now move her limbs freely without pain. In fact, except that she was feeble for a week, she was well; for not only was all pain gone, and good refreshing sleep produced, but the disease was really radically cured. She never had the least relapse, but steadily progressed and recovered. There was powerful action of the heart, but I could not detect any *bruit*. As she was daily and hourly becoming worse, in spite of all treatment, while immediately after the hypodermic injection the improvement took place, it is only fair, I think, to say that in this case at any rate it effectually cured the disease. Another very important fact to be noticed is, that the remedy produced not the slightest unpleasant result from the constitutional effects of the morphia. The appetite returned, and, with the help of a little quinine, she rapidly recovered, only a little stiffness of the joints remaining for a few days. In a week she was up and walking about.

CLINICAL MEMORANDA.

VARICOSE VEINS PROBABLY DUE TO OBLITERATION IN BOTH THIGHS OF THE DEEP TRUNKS.

A MAN, aged 36, was sent to me on account of varicose veins. He had varices of most unusual extent in both legs and the lower parts of both thighs. They were peculiar not only in the fact that almost every superficial vein seemed to be involved, but in that there was not the slightest trace of inflammation of the skin nor œdema. This feature attracted my

attention. The condition resembled more what we sometimes see on the surface of the abdomen after obliteration of the vena cava than what is usual in the lower extremities. The man's history seemed to favour the conjecture that the dilatation of the superficial veins might probably be a consequence of obliteration of the deep ones. He told me that seven years previously he had been laid up by rheumatic fever, and that after recovery he went to work too soon and became very wet. He was again laid up, this time on account of great swelling of both legs. He was nearly three months in bed, and after he got about again the veins began to enlarge. Before this illness he had no varix whatever. He had never been troubled by any kind of eczema or ulcers. At the time when I saw him, he was consumptive, and gurgling was easily detected over the left apex. I have seen two or three similar cases to this: in one, the veins of the upper extremity were varicose, and there was a history of phlebitis of the chief trunk.

ON SYMPTOMS.—Symptoms are a kind of language. We cannot read them unless we understand first the alphabet, next the words of which they are composed; finally, their arrangement or grammatical construction is most important.

NEURALGIA WITH SWELLING.—It is surely necessary to distinguish between a local inflammation induced in a nerve and pure neuralgia. If there be tenderness over a patch, with some slight swelling, then probably a degree of inflammatory action is present. A pure neuralgia should be without either tenderness or swelling. Yet this limitation would exclude a majority of the affections known as neuralgia.

JONATHAN HUTCHINSON, F.R.C.S., Surgeon to the London Hospital.

FATAL PULMONARY HÆMORRHAGE.

I AM extremely sorry to have misinterpreted Dr. Bradbury's first communication on the above subject; I can assure him I read it with great care. If, indeed, atheroma of the pulmonary artery within the lung ever occur—as Dr. Bradbury supposes—as a *primary disease*, it is of great importance that we should recognise the fact, and some well authenticated cases of the kind would therefore be of great value. There are certainly some cases of copious *pulmonary* hæmorrhage, rarely, however, immediately fatal, which precede any discoverable disease of the lung, and which have not yet been satisfactorily explained. It is, however, clear that the case reported by Dr. Bradbury, in which he does not describe fully the cavity found in the lung, nor state the condition of the pulmonary artery generally, nor even the appearance of the ruptured vessel (he does not seem, in fact, to have found it), will not by itself tend in any way to establish a fact of so great a clinical significance. And Professor Niemeyer's very bare statement, referred to by Dr. Bradbury, seems yet to need confirmation.

R. DOUGLAS POWELL, M.D., Assistant-Physician
to the Hospital for Consumption, etc., Brompton.
Nottingham Place, Jan. 31st, 1871.

CHANGE OF TYPE IN SCARLATINA.

I AM induced to place on record the remarkable change in the type of scarlatina which has taken place in this locality suddenly during the last three months, and for which I am totally at a loss to account. For two or three years past not a case has given me the slightest anxiety or disquietude; and, were it not for vivid recollections of former treacherous and fatal outbreaks, I might have been almost induced to regard scarlatina as a bugbear.

Three months since, a young lady in whom the eruption had run its ordinary course, was seized with swelling of the parotid and submaxillary glands, together with ulceration of the tonsils. She eventually did well, but from this moment not one single case has done kindly. The sequelæ have been of every conceivable character, from simple glandular enlargements to suppurations and dissections amongst the muscles of the neck; from anasarca and albuminuria to convulsions and paralysis; erysipelas of the face—to me a novel sequel altogether; hæmorrhage from the ear (fatal); and diphtheritic deposit about the fauces. Some cases were ushered in by convulsions. One remarkably robust boy, whose brother was laid up with the disorder, suddenly went into a state of collapse; reaction never took place; and in sixteen hours, from a state of apparent rude health, he was a corpse.

No less care was taken in all these cases than in the former harmless ones. The most approved hygienic measures were carried out; the diet was generous, with port wine, and the medicine was that which I have always considered most efficacious in neutralising the poison and sustaining the system in the warfare it has to accomplish; namely, a

combination of chlorate of potass, hydrochloric acid, and perchloride of iron, and yet every case without exception has gone and is going more or less wrong. Can any of our Associates account for this sudden and disastrous change of type?

EDWARD GARRAWAY.

Faversham, January 1871.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

ACUTE TUBERCULOSIS: REMARKABLY RAPID COURSE.

(Under the care of Dr. CAYLEY.)

THE following case is remarkable for its unusually rapid course; what is usually described as the third stage of the disease—stupor and convulsions—appearing on the day after the child was observed to be ill. The premonitory symptoms, if there were any, were so little marked as to escape the notice of the child's parents.

Martha C., aged 19 months, was admitted on January 6th, 1871. The mother had had seven children, by two husbands: five of them died in infancy, of convulsions; the remaining one is healthy. As far as she was aware, there was no consumption either in her own or her husband's family. The child had enjoyed good health, but was always thin. Fourteen days before admission, she fell and struck her forehead, also cutting her lip; but remained in her usual health afterwards, though her mother attributed her present illness to this fall.

On January 1st, she became fretful and restless, and refused her food. She passed an unquiet night, but had no vomiting, and did not scream. The next day (Jan. 2nd) she fell into a state of stupor, in which she had continued ever since. While in this condition, she had taken no notice of anything, and had not cried or shown any signs of consciousness. Her mother had noticed that her left arm and leg were constantly moved about, while her right arm and leg were motionless. There was no vomiting. The bowels were confined from the 2nd to the 5th, when they were freely moved after a dose of castor-oil. Since the commencement of her illness, she had been fast losing flesh.

On admission, the child was much emaciated. She lay in a state of profound stupor. The right arm and leg were quite motionless and flaccid; the left limbs were being constantly jerked about. The left pupil was much dilated, but was not insensible to light; the right one was normal. Her face frequently flushed. The fontanelle was very tense and prominent. The belly was drawn in. Pulse 180; respiration 36; temperature 100.1 deg. The heart and breath sounds were normal. She was ordered three grains of iodide of potassium every four hours, and five grains of grey powder immediately; evaporating lotions to the head, and hot bottles to the feet.

January 7th, 3 P.M. She remained in the same state of stupor. The convulsive jerkings of the left arm and leg continued, and she now occasionally twitched the right limbs. She frequently ground her teeth and clenched her jaws, and her breathing occasionally became convulsive. The pupils were as on admission. She swallowed readily everything that was put into her mouth. The bowels had been opened once; the motion was solid. The pulse was too rapid to be counted. Temperature 98.8.

January 8th. She continued in the same condition, but was weaker. Convulsive movements affected both sides, but the left much more than the right. She continued to grind her teeth and clench her jaws. The left pupil continued dilated. The bowels had been open several times. The pulse was extremely rapid, and scarcely perceptible. Temperature 101.2. At 11 P.M. she died.

NECROPSY, thirty-nine hours after death.—The pia mater was very hyperæmic. The cerebral convolutions were flattened. A considerable quantity of greenish-yellow lymph was effused into the pia mater, at the base of the brain, over the floor of the third ventricle, and in the fissures of Sylvius. The pia mater was also studded with grey and yellow tubercular granules, both at the base and lateral aspects of the cerebrum and on the pons and cerebellum. On microscopical examination of arteries from all parts of the pia mater, even where no tubercles were visible to the naked eye, the tunica adventitia was found in many crowded with tubercle-nuclei. The lateral ventricles were much dilated, and contained two or three ounces of turbid serum. The fornix and septum lucidum were reduced to a pulp by maceration. The cerebral substance was hyperæmic. The pleural surfaces of the lungs and the lungs themselves were studded with grey miliary granules.

There was no inflammatory consolidation or engorgement. The liver and kidneys were also studded with minute miliary granules. The mucous membrane of the intestine was round; but many of the mesenteric glands were enlarged, and converted into opaque yellow cheesy masses. According to the modern doctrine of the pathology of acute tuberculosis, these must be looked upon as the starting-point of the process.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

THE SETON IN VASCULAR ULCERS OF THE CORNEA.

Under the care of Mr. SPENCER WATSON.

CASE III.—*Marginal Vascular Ulcer in the course of Strumous Ophthalmia of three months' duration, healed in considerably less than a month after the Seton.*—A child aged 5 had been under treatment for strumous ophthalmia, with photophobia, for three months. She suffered much from ascarides. For a fortnight before the seton was passed, she had been taking cod-liver oil and bark and soda. A belladonna liniment had been applied to the brow. No benefit followed. On June 25th, a raised vascular deposit occupied the marginal region of the right cornea. She had considerable photophobia, and there was much difficulty in ascertaining the condition of the eye. A seton was passed in the right temple. On June 29th, she had less photophobia; the seton was discharging. On July 23rd, the seton had cut its way out more than a week ago. There was little or no photophobia. The ulcer had healed, and had left a nebula which was free from vessels. The track of the seton was scabbed over and had not yet healed. There was no relapse.

CASE IV.—*Arboriform Ulcer of ten days' duration: A very small Seton: Ulcer Healed in three weeks.*—A child aged 5 had had photophobia and inflammation of the left eye for about ten days. No treatment had been adopted till October 22nd, 1869, when an "arboriform" ulcer exactly resembling that in Case II had formed midway between the margin and centre of the cornea. Photophobia was marked and persistent. On October 22nd, a small silk thread seton was passed in the left temple. The track of the seton was not longer than a quarter of an inch, and as superficial as possible. The child scarcely cried during the time of passing the thread, and only a few drops of blood escaped. A powder of cinchona and soda was prescribed. On October 26th, the photophobia had quite disappeared; the ulcer had improved in appearance. On October 29th, there was slight photophobia. On examining the ulcer, it seemed to be spreading, in a semicircular form, towards the centre of the cornea. The seton, which remained in its place, did not discharge freely. There was an eczematous eruption behind the ear on this side, and excoriation of the nostril. A drachm of cod-liver oil was ordered to be taken three times a day. On November 2nd, the vascularity extended over the centre of the pupil, but the ulcer was healing, and there was little or no photophobia. The seton was discharging. On November 8th, the seton had cut its way out. On November 12th, there was no photophobia, and very little vascularity of the ulcer, which had nearly healed. On November 23rd, a faint "arboriform" nebula occupied the site of the ulcer. There was no photophobia nor vascularity. There was still a slight discharge from the seton.

REMARKS.—In this case the seton was perhaps scarcely large enough, and the improvement consequently less decided at first. The advantage, however, of a small seton is, that it causes less trouble to the patient and friends in dressing it; and in the case of children, does not cause so much fright and subsequent "chirurgophobia", which is sometimes as unmanageable a symptom as the photophobia, and may be in some instances mistaken for it. In these little patients the greatest possible care and tenderness are necessary in order to get a glimpse of the cornea; and in the more refractory children the only possible plan is to give chloroform or bichloride of methylene before the state of the eyeball can be clearly made out. In such instances, should chloroform have been given, it is well at the same time to be prepared with the silk-thread and suture-needle, in order to be able to pass the seton during the anæsthetic state.

CASE V.—*Granulated Conjunctiva and Ulcer of a Vascular Cornea: Unsuccessful Result.*—A man aged 20 was under treatment in December 1867, with vascular cornea and a spreading ulcer of the cornea of the left side. Applications of solution of nitrate of silver to the lids, and various other plans of treatment, having been tried without benefit, and the intolerance of light being very distressing, a seton was put into the left temple on December 11th. On December 18th, he was much improved. On January 1st, 1868, the ulcer had not healed, but was not spreading, and looked less irritable. The photophobia was very slight. The seton, which was composed of very thin ligature silk, doubled, did not cause much suppuration. On January 8th, the ulcer was very vascular, as was also the surrounding cornea.

REMARKS.—The notes do not extend beyond this date ; but, speaking from memory, the result was not satisfactory. The case was, however, one of an aggravated kind, such as could not be supposed to be suitable to the plan by seton, the use of which in this instance was experimental ; nevertheless, even here temporary improvement was very marked, inasmuch as the photophobia became decidedly less for a fortnight after the application of the seton. The granular state of the conjunctiva was a condition which was in itself sufficient to keep up the irritation of the corneal ulcer, and hence it is the more remarkable that even a temporary amelioration of symptoms should have occurred. This case is perhaps an answer to the question No. 6 (in the article on Setons in Ophthalmic Practice, BRITISH MEDICAL JOURNAL, December 18th, 1869), "Are there certain forms of inflammation of the cornea of which it may be predicated that no benefit will be obtained from setons, and in which, therefore, their use is only likely to bring discredit on this practice? If there be such, what are they?" Answer: Ulcers of the cornea, associated with granular conjunctiva and rough vascular cornea, may be concluded to be among the number.

The seton in all the cases related consisted of a double thread of ligature silk carried under the skin by a medium-sized suture-needle. It was always placed as far back on the temple as possible, and generally under the hair. The length of the track of the thread varied from half an inch to an inch and a half ; in the very young children, half an inch seemed long enough. No inconvenience resulted from the seton-thread being allowed to cut its way out, the small scar remaining being entirely concealed by the hair.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

NOTES OF CASES.

(Under the care of Dr. BRADBURY.)

Eruption of Purpura under the Use of Iodide of Potassium.—During a recent visit to this Hospital, we noticed, under the care of Dr. Bradbury, the case of a brewer's labourer (58 years of age, who had lived well for the last two years) in whom iodide of potassium, administered for rheumatic pains, twice produced an eruption of purpura on the thighs, legs, and arms. Dr. Bradbury said he felt convinced that the purpuric spots were due to the iodide of potassium, for when he ceased to administer the drug for a fortnight, the purpura disappeared. On the iodide of potassium being re-administered, the spots reappeared, again to disappear on the drug being suspended. Dr. Bradbury informed us that the same effect of the drug had been noticed by Ricord and Virchow. The former had a syphilitic patient who, whenever he was treated with the salt, suffered from purpura hæmorrhagica. Virchow's case was one of cancer, the subject of which had purpura hæmorrhagica whenever the drug was administered. Dr. Bradbury's patient had also had several slight attacks of epistaxis.

Incontinence of Urine treated by Hydrate of Chloral.—Amongst Dr. Bradbury's out-patients is a girl who had been troubled with incontinence of urine for nine years, wetting her bed, according to her own and her mother's account, every night. She was ordered fifteen grains of chloral hydrate every night, and since she took the first dose of the medicine there has been no return of the complaint.

Santonine in Helminthiasis.—We also saw a girl suffering from helminthiasis (*ascaris lumbricoides*) who, her mother said, had passed fourteen worms since her last visit. Dr. Bradbury had, from the patient's symptoms, suspected worms, and had prescribed santonine, with the above result. He looks upon this drug as a specific for these worms, having never known the remedy to fail when properly administered.

LEEDS GENERAL INFIRMARY.

SALIVARY CALCULUS CAUSING SYMPTOMS OF SUFFOCATION.

(Under the care of Mr. JESSOP.)

PHOSPHATIC concretions in the salivary ducts are not of uncommon occurrence, and it rarely happens that they give rise to symptoms of any severity. That they are not wholly unattended by danger, is sufficiently attested by the following example.

William N., aged 24, was sent into the Leeds Infirmary by Mr. Jessop's dresser, Mr. Dean, on November 16th, 1870, in consequence of threatening suffocation. Beneath the jaw on the right side was a swelling as large as a hen's egg ; the mouth was opened with difficulty, and in its floor on the right was an elevation, which displaced the tongue upwards and to the left. Externally, the swelling was firm and rounded ; internally, semi-elastic and uneven. The mouth was filled with saliva ; and at the first examination no concretions could be detected. The history, however, clearly pointed to calculus as concerned in the pro-

duction of the complaint. The patient stated that for twelve months past he had felt a hard lump in the floor of his mouth, which he believed to be a tooth "growing out of its place." Not until November 12th—four days before his admission—had he experienced any ill effects from the presence of this body, but on that day a swelling made its appearance beneath the jaw. This quickly enlarged whenever he partook of food, and gradually in part subsided during the intervals between meals ; but, day by day, there was persistent increase of size. On the morning of November 15th, he began to suffer considerable pain in the neck, and he experienced difficulty in breathing and swallowing. Towards evening of the same day, his breathing became more decidedly obstructed ; and during the whole of the following night he was afraid to sleep, lest he should suffocate. When admitted, his breathing was manifestly interfered with, though to a less dangerous extent than on the preceding night, probably because he had altogether abstained from food. Leeches and fomentations were ordered to be applied.

Next morning, on carefully examining the floor of his mouth, a hard body was felt buried in the swollen and infiltrated tissues. On removing this with forceps, a second was discovered, which also was easily taken away. These proved to be ordinary examples of salivary concretion, each about the size of a pea. During the two following days, the swelling entirely disappeared, and he was discharged cured on November 19th.

Having explained to his class the nature of these deposits, Mr. Jessop proceeded to point out that the rapidity and character of the swelling in this case led him to believe that it was due to a combination of inflammatory infiltration of the submaxillary salivary gland, with retention of saliva in the recesses of the gland from obstruction of the common duct.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, JAN. 17TH, 1871.

J. HILTON, Esq., F.R.S., President, in the Chair.

MR. FAIRLIE CLARKE exhibited a specimen illustrating the extent to which the bones of the skull may be injured without presenting any external lesion. In the present case, the Petrous Portion of the Temporal Bone was fractured in several directions.

MR. JAMES ADAMS showed a specimen of Fracture of the Head of the Radius without comminution or fracture of the other bones.

DR. CRISP brought forward a specimen of Ulcer of the Stomach, resulting in fatal hæmorrhage, taken from a female, aged 62. There were three openings into the artery, which caused the fatal hæmorrhage. There was no special disease of the artery.—MR. CURLING remarked that it was not at all an uncommon thing for ulcer of the duodenum to cut into an artery.—DR. MURCHISON said he had last session shown several cases with reference to the minute size of the ulcer, and referred to the case of a man with ulcer of the duodenum, in the body of whom were afterwards found the arteries exposed, with the plugs which filled up the arterial openings whence the hæmorrhage had arisen.

MR. WAGSTAFFE showed a tumour removed from the lower jaw of a woman, aged 48, by Mr. Le Gros Clark. It was about the size of a small orange, and occupied the left side of the jaw from below the condyle to within half-an-inch of the symphysis, and that portion of the bone was removed by operation successfully. The structure of the tumour was cystic, in a firm fibro-nucleated matrix, into which projected tortuous cylinders of densely packed spindle-cells. The arrangement of these cylinders was very peculiar, and gave rise to the appearance of gland-structure in some parts. Another peculiarity was the existence of secondary cysts within the larger ones, these secondary growths occurring in the lining of large spheroidal epithelium, and being very readily detached. The tumour was considered to be a specimen of Cystic Sarcoma.

DR. CRISP also exhibited a specimen of Cancer of the Œsophagus of nine months' duration. There was a valvular stricture, and the epiglottis was ulcerated.

A case of Mucous Disease was communicated by Dr. Dickinson for Mr. WHITELEY of Manchester. The patient was a female, who suffered from periodic headache and expectoration of a large quantity of matter raised from the trachea, consisting of masses like pencils, rarely complete tubes, and some of them measuring three-quarters of an inch long.—A Report on the case was also read by Dr. DOUGLAS POWELL, which stated that the masses consisted of mucus yielded by catarrh of the pharynx or upper part of the Œsophagus.—DR. CRISP referred to a case of a hysterical female, who swallowed snails and brought up the hard penes.

Dr. PAYNE brought forward two interesting cases of Pyæmia. The first had apparently been produced by the opening of a scrofulous abscess of the neck into a vein. There was pus in the left knee-joint, and several pyæmic deposits in both lungs. The patient had previously injured his knee slightly, but there was no appearance of external injury. The second case had originated, Dr. Payne believed, in the longitudinal sinus of the dura mater, in which there was a longitudinal mass which had, by breaking down, produced the symptoms. Dr. Payne, in answer to Mr. Barwell, said that the matter in the abscess in the first case was not pus, but granular matter, the result of long suppuration of scrofulous material.—Mr. BARWELL was unable to see the proof of the origin of the pyæmia, in so far as the lungs had escaped to so great an extent, and one joint only had become affected.—Dr. MURCHISON remarked that the first case had an important bearing on the germ theory, as no air had been admitted.—Dr. PAYNE observed, in answer to Mr. Barwell, that it had been shown, by injecting into veins minute particles, that they might pass through the capillaries of the lungs into those of other parts. In the scrofulous abscess the matter was one of the finest emulsions. He could not say why one only of the joints was affected.

Dr. PAYNE next exhibited Cysts of the Peritoneum containing air, mostly arranged in clusters like grapes. They were in the ileum and mesentery. Some of them were the size of hazle-nuts. On analysis, the air in these cysts contained less oxygen and more carbonic acid than in atmospheric air; in fact, it corresponded with that usually found in the stomach, and it was probable that the contents of the cysts came from that viscus; for at the pyloric orifice there was a deep ulcer, and the stomach was very tympanitic. The cysts were organised structures, and not formed of dilated membrane only.

Dr. BROADBENT brought forward two cases of Scarlatina with Hæmorrhagic Complication. The small and large intestines, the pharynx, and heart exhibited extravasations beneath the membranes. Until the last four months, there had been few of these cases at the Fever Hospital. Six had since occurred, proving rapidly fatal.

MEDICAL SOCIETY OF LONDON.

MONDAY, JANUARY 16TH, 1871.

JOHN GAY, Esq., President, in the Chair.

Dr. KELBURNE KING of Hull read a report of the case of C. E., aged 28, who had for three months suffered from a Tumour growing in the Throat. The symptoms were chiefly difficulty in swallowing, speaking, and breathing. The tumour, covered by mucous membrane, was felt in the left of the soft palate as a hard mass, isolated from the nasal cavity, and bounded externally by the ascending ramus of the maxilla. Its base was broad, and passed outwards and backwards behind the jaw, where it could be felt externally. The symptoms becoming urgent, he was admitted into the Hull Infirmary, and the tumour was removed by Dr. King. As a precaution against hæmorrhage, a ligature was placed loosely on the common carotid artery; the face was then laid open by an incision from the angle of the mouth to the jaw, the masseter muscle and the ramus of the jaw being both divided. Some difficulty arose from the slipping of the tumour down upon the glottis, and so threatening suffocation; but Dr. King hooked it up with his fingers, and removed it through the division made in the inferior maxilla. At the close of the operation there was free hæmorrhage, which was controlled by tightening the ligature on the carotid. The man for some time progressed favourably; but there were cases of erysipelas in the Hospital, and he unfortunately caught this disease and died.—Dr. MORELL MACKENZIE inquired whether the tumour could not have been removed through the mouth by means of the *écraseur*.—Dr. KING said that he was anxious to remove the whole of the tumour; and, owing to its very broad base, he did not think he could have done this with an *écraseur*.—Dr. ROGERS agreed as to the importance of removing the whole of such tumours.—The PRESIDENT did not fear hæmorrhage in these cases.

Mr. HENRY SMITH showed a Gold Tooth-plate and Teeth that had been swallowed by a gentleman, a patient of Dr. Hamilton of Mitcham. Mr. Smith saw him six hours after the accident, and was able then to touch the plate with a pair of long forceps; but all attempts at extraction were unavailing. Mr. Smith, therefore, pushed the plate down into the stomach. The patient felt relief; and nine days afterwards passed the plate by the bowel with but little pain. Mr. Smith also showed a similar plate in vulcanite, given to him by Dr. E. Johnson, that had been swallowed and passed through the patient in safety.—Dr. KING narrated the case of a man in the Edinburgh Infirmary who had swallowed his false teeth. Mr. Syme, not being able to pull the teeth up, at once pushed them down. A few days afterwards, Dr. King was sent for to see the man, and found him dead. The angular

hooks on the tooth-plate had torn the œsophagus and perforated the aorta. In the stomach was a complete cast of its cavity in blood-clot.—Mr. CARTER had seen a case where a brooch was swallowed. The patient was made to eat a large quantity of bread, and then an emetic was given, when the bread and brooch all returned together.—Dr. MORELL MACKENZIE was in the habit of using in such cases an instrument known on the continent as the *ramoneur*. It was passed down; and, as it was withdrawn, a sort of brush, expanding, caught the foreign body and so removed it.

Dr. MACKENZIE showed his new Eclectic Inhaler. A sufficient supply of air was insured, and an even temperature was maintained by a lamp placed below. The air entered by a series of apertures; and, having passed through the liquid, escaped by the inhaling-tube, which was of large calibre.

Dr. CARPENTER of Croydon read a paper on the Causation of Scarlatina. He considered scarlatina as one of a series of diseases which are epidemic at times, produced by a combined force resulting from the effect of matter acting upon blood more or less impure. The formula $x y z$ might represent epidemic disease. It was proposed to consider x and y as centric numbers of the equation, as far as the body was concerned, and z as eccentric, as obtained from without. Thus, $x y z$ might equal typhoid, typhus, cholera, or scarlatina, according to the particular quality or power of the number z . Dr. Carpenter believed that scarlatina might arise *de novo*, having an apparently spontaneous origin, in any position in which the elements required for its development were brought together and then exposed to the proper physical influences necessary for its growth. Instances were detailed to show how putrid and decomposing animal matter, blood, offal, etc., would cause scarlatina. In the case of three separate families living on a healthy hill, the disease seemed caused in this case by miasma blowing from some fields not far distant, which had been manured with slaughter-house refuse. Another case was given of an outbreak of scarlatina in a school of boys; and nothing seemed to prevent these outbreaks till it was proved that under the playground was a cesspool which received some refuse from a slaughter-yard. When this was directed elsewhere, the outbreaks of scarlatina ceased. Another instance was that where some children, sleeping over a fowl-house in which the fowls were killed and the blood poured on the floor, were all attacked with scarlatina. Dr. Carpenter's inquiries extended over ten years, and comprised 268 cases of scarlatina that he had attended without one fatal result.—Dr. THOROWGOOD said that, though he had never considered scarlet fever to be one of those forms of fever that might be generated by animal or vegetable decomposition, defective drainage, or other sanitary short-comings, yet the conviction was strong in his mind that the disease might be rendered increasingly severe and malignant when any of these were present in a community invaded by the disease.—Dr. SIMMS inquired whether Dr. Carpenter could point out the one essential cause of scarlet fever.—Dr. RICHARDSON, alluding to his former researches on scarlet fever, said that he believed all he had at that time stated to be in the main still as true as ever. It was important to study the conditions of body favourable to the development of scarlet fever. His own experience would go to prove that the disease was as fatal among the rich as among the poor. The first effect of the poison was on the nervous system. Much depended on the pre-existing state of system in determining the severity of an attack; and at some periods of the year it seemed more fatal than at others.—Dr. ROUTH inquired if the disease were more fatal among the people who were engaged about slaughter-houses.—The PRESIDENT asked if the amount of blood-refuse which passed into the sewers influenced perceptibly the prevalence of the disease, and if those who consumed meat-essences much were liable to scarlatina.—Dr. CARPENTER believed the disease to be common in the families of slaughter-men and butchers; and in those districts where much blood passed into the sewers and then became putrid, scarlet fever was almost sure to appear.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, JANUARY 18TH, 1871.

P. D. HANDYSIDE, M.D., in the Chair.

Dr. P. H. WATSON showed an Encephaloid Tumour of the Mamma containing a cyst which he had recently removed.

He also showed the Cicatrix and Axillary Glands which he had removed from a case which had been operated on by another surgeon eighteen months before for Cancer.

Dr. WATSON showed also a Penis amputated in the manner recommended by himself nearly eight years ago, in which the urethra is left larger than the corpora cavernosa, and slipped through a slit made in the skin left above. This prevents the risk of contraction of the orifice

of the urethra. He also showed the parts removed in a case of Excision of the Elbow; and various fragments of Calculi removed by crushing.

Mr. ANNANDALE showed a small Recurrent Fibroid Tumour more vascular than usual; a piece of bone removed from a Comminuted Fracture of the Clavicle; fragments of bone from a case of depressed Fracture of the Skull, which proved fatal in fourteen hours; a piece of Wood which a surgeon in the country had removed from the perinæum of a patient; it formed the pointed end of a rake-handle.

Dr. THIN of Shanghai read a paper on Sunstroke, describing a series of cases he had seen during very hot weather in 1867.—Dr. LILBURNE, R.N., made remarks.

Dr. RUTHERFORD, C.B., Deputy Inspector-General, read a paper entitled Remarks on Dr. Bennett's Case of Hepatic Abscess said to have been treated by Mercury. In it he gave the full history of the patient's treatment in the Military Hospital, which differed in many respects from that which the patient had given Dr. Bennett. No mercury had been given, except that the biniodide ointment had been rubbed in at Netley without salivation. He stated that he believed the symptoms which Dr. Bennett thought to be mercurial were those of syphilis.—Dr. BENNETT briefly replied, and it is likely that the case will again form the subject of discussion at a future meeting.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, JANUARY 21ST, 1871.

JAMES STANNUS HUGHES, M.D., President, in the Chair.

Dr. E. H. BENNETT showed the Extremities of various of the Long Bones from the body of a patient, the clinical history of whose case was unknown. Some of the specimens had undergone the changes characteristic of *articular gout*, while others presented the porcelain surface, and other appearances observed in *chronic rheumatic arthritis*. A deposit of urate of soda had taken place, particularly in the joints of the lower extremities, in the bursa in front of the patella, and on the patella itself. The right hip-joint and the left shoulder-joint had been severely attacked by chronic rheumatism. Dr. Bennett directed especial attention to the coexistence of the two diseases in question in the same individual.

Dr. FINNY exhibited some Morbid Specimens illustrative of the possible presence of organic disease without well-marked symptoms, and of the existence of physical signs without corresponding disease. The patient, a man aged 39, nine months ago noticed that his eyelids were swollen. Gastric symptoms supervened, and, finally, an obstinate diarrhoea set in. For the last-mentioned symptom the patient sought medical aid. He was at this time extremely anæmic. A *bruit du diable* was present in the jugular veins; over the base of the heart a loud systolic murmur was heard, which was carried into the aorta; and, again, an apex murmur, also with the first sound, but quite distinct from the former, was present. The pulse was generally quiet, and its usual rate was eighty per minute. The urine was determined to be free from albumen. Shortly before death, a reduplication of one of the heart's sounds occurred. *Post mortem* examination showed that the kidneys had undergone extreme amyloid degeneration. Each of these organs weighed nine ounces, and iodine when dropped on them gave the distinctive mahogany tinge. Yet in life the urine had been of late neither superabundant nor albuminous. The heart was enlarged, the left ventricle being dilated. The mitral valve was healthy, but the mitral orifice was dilated, its circumference being five inches. To this dilatation of the ventricle, which led to the widening of the mitral opening, the presence of the systolic murmur at the apex was probably due. A large clot was found extending from the pulmonary veins into the left ventricle. It was composed principally of fibrin and of colourless blood corpuscles.

Dr. ATTHILL presented a specimen of Cauliflower Excrescence engaging the Os and Cervix Uteri in a married patient aged 28, the mother of a child aged 4. In October 1869, a sanguineous discharge showed itself, and recurred at intervals during the following months. At the time of her admission, the patient was anæmic, weak, and suffered from severe pain in the back. The uterine discharge was copious, watery, and not very foetid. She stated that her mother and two sisters had died of cancer of the womb. On examination, the posterior lip of the os was found to be engaged, the vagina and uterus being healthy. In May the cancerous mass was removed by the *écraseur*, but the disease returned in process of time, and eventually proved fatal. Dr. Atthill mentioned four points of interest in the case: viz., the early age at which the disease set in; the hereditary predisposition; the insidious manner of invasion; and the unsatisfactory nature of the operation.

Mr. MORGAN showed a case of Syphilitic Ulceration of the Larynx,

in which during life there were no physical signs or symptoms present. The primary infection dated back ten years, and the only evidence of secondary effects were some growths in the groin, which closely resembled malignant disease.

Mr. MORGAN also exhibited a large Vesical Calculus, of the size of a pear, which nearly filled the bladder.

Dr. LYONS detailed the history of a case of indirect Alcoholic Poisoning. A lad, aged 19, drank, one morning, a full quart of raw whiskey. Insensibility ensued, and a profound coma lasted for twenty-four hours. Hot jars which were applied to the feet caused serious burning, and the soft parts rapidly sloughed away. A low pyrexia set in, and, finally, evidences of gangrenous abscess of the right lung manifested themselves. Dr. Lyons believed that intemperate habits, combined with the effects of the absorption of deleterious products from the burned surface, led to a state of pyæmia, and so determined the pulmonary lesion.

Mr. WILSON presented a specimen of a Polypus removed from the Meatus Auditorius Externus. It was an example of what had been termed by Toynbee "fibro-gelatinous" polypus. The tumour projected one-eighth of an inch from the external meatus, from the posterior aspect of which it sprang by two or three roots.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, DECEMBER 9TH, 1870.

EDWARD CLAPTON, M.D., President, in the chair.

Dr. J. S. BRISTOWE read a paper entitled Cases illustrative of the various forms of Impairment or Loss of the Power of Speech, with Remarks. He divided the mechanism of speech into two parts; that furnished by the larynx, and that furnished by the mouth. He then proceeded to consider aphasia under three heads. 1. That due to a mental defect independent of any affection of the organs of speech, to which the term amnesia, or amnesic aphasia, has been applied. Particulars of four cases illustrative of this form were given, in all of which there was paralysis of the right side; in other words, the left side of the cerebrum was diseased, which to a certain extent confirmed the views of Dax and P. Broca. These writers associate aphasia with disease of a definite part of the cerebrum, viz., the posterior part of the third frontal convolution. Dr. Bristowe thought it certain, however, as Trousseau maintained, that aphasia in some instances is obviously the result of disease of the right hemisphere, and that it was equally certain that the dependence of aphasia on disease of a particular convolution, whether in the right or left side, was at present very far from certain. 2. That form in which, without there being any apparent mental defect, and without there being any paralysis of the organs of speech, the patient loses the power of speech absolutely. Particulars of a very interesting case illustrative of this form were given, in which Dr. Bristowe succeeded in teaching the patient to speak. A full account of this case is published in the last volume of the *Transactions of the Clinical Society*. Dr. Bristowe thought that cases of this kind lead to the conclusion that speech, when once acquired, is a purely reflex phenomenon, as are the acts of deglutition or respiration; that there is some ganglionic centre intermediate between the cerebrum (which thinks and wills) and the nuclei of the motor root of the fifth, the portio dura, and the hypoglossal nerve (whence the motor power of the organs of articulation is derived), intimately connected by nerve-fibres with all these parts; that this centre, when the mind wills to express itself in words, acts as its agent in the matter, and directs the necessary combined impulses of the nerve-nuclei, upon which the combined movements essential for the production of each articulate sound and each articulate word depend; and that aphasia here is due to disease affecting this co-ordinating centre. 3. That in which the nerves of speech are paralysed, either from disease in some of the trunks, or from disease affecting their nuclei of origin. Particulars of one case illustrative of this form were given. The most remarkable examples are those furnished by disease of the medulla oblongata, and by that peculiar form of paralysis described by Duchenne and Trousseau, and which the latter terms glosso-pharyngeal paralysis. Dr. Bristowe also stated that cases of aphasia are certainly met with in which the above varieties of loss of speech are combined in a greater or less degree. A discussion followed, in which Drs. Purvis, Gooding, Clapton, and Thorowgood, and Messrs. Lockhart, Mitchell, and Hope took part.

FRIDAY, JANUARY 13TH, 1871.

E. CLAPTON, M.D., President, in the Chair.

A PAPER on the Treatment of Stricture of the Urethra by the employment of a Stricture-Dilator was read by Mr. BARNARD HOLT. After

reading the paper, Mr. Holt exhibited and explained the action and use of his "winged" catheter.—Drs. Ralph Gooding, Moon, and Purvis, and Messrs. Johnson, Smith, J. P. Purvis, and Lockhart, took part in the discussion which followed.

THERAPEUTIC RECORD.

PILLS OF SULPHATE OF QUININE.—In order to ensure the solubility of quinine when made into pills, M. Cazac (*Rev. Méd. de Toulouse*, Sept. 1870) proposes to mix the sulphate with tartaric acid. This had already been recommended, but the quantity of acid proposed was too large. M. Cazac uses one part of tartaric acid to five of sulphate of quinine, making up the pills with conserve of dog-rose.—*Lyon Médical*, 22 Janvier, 1871.

EUCALYPTUS GLOBULUS IN CHOLERA.—M. Martin (*Algérie Médicale*, No. 16, 1870) recommends infusion of the leaves (from five to eight in a quart of water). The fruit and bark are also efficacious. The medicine has an agreeable taste; it promotes the secretion of urine, even when it has been arrested for some days; often changes the nature and colour of the alvine discharges; but, especially, arrests vomiting or diminishes its frequency. Of forty-eight patients, vomiting was arrested in thirty-five after an average period of three hours, in seven it was diminished, and in four it continued. The active portion of the eucalyptus appears to be its essential oil, which has much analogy with essence of turpentine. Turpentine, it is said, acts in cholera in a similar manner to eucalyptus; but the latter is of more agreeable taste, and better tolerated.

SUBCUTANEOUS INJECTION OF ERGOTIN IN UTERINE DISEASES.—Dr. von Swidersky, in the *Berlin. Klinisch. Wochenschrift* (No. 50, 1870) states that he has employed subcutaneous injection of ergotin in chronic metritis, uterine displacements, and metrorrhagia, with satisfactory results. The following forms of injection were used. 1. Aqueous extract of ergot, 2.5 parts; rectified spirit and glycerine, each 7.5 parts. 2. Aqueous extract of ergot, 2 parts; rectified spirit, 5; glycerine, 10. 3. Aqueous extract of ergot, rectified spirit, each 2.5 parts; glycerine, 12.5. 4. Aqueous extract of ergot, 1 part; rectified spirit, 1.5; distilled water, 4.5; glycerine, 3. The solutions 3 and 4 are used in chronic cases; 1 and 2 where a rapid effect is required. The action of the remedy appears from half an hour to two hours after injection. Severe bearing-down pains are often produced, and continue for some hours.—*Wiener Medizin. Wochenschr.*, January 21st, 1871.

TURPENTINE AS AN ANTIDOTE TO PHOSPHORUS.—The statement of Personne that turpentine acts as an antidote to phosphorus, by preventing its oxidation at the expense of the oxygen of the blood, has been called in question by Vigier and Currie. Köhler and Schimpf have repeated Personne's experiments, and have given the following results in the *Berliner Med. Wochenschrift* (No. 50, 1870). 1. Commercial oil of turpentine is a very good antidote to poisoning by phosphorus; there is no fatty degeneration of the tissues, nor any free phosphorus in the urine and fæces, of animals made the subject of experiment. 2. Phosphorus and turpentine-oil form in the stomach a compound resembling spermaceti. In dogs, this was found to be easily borne, and to be readily excreted; or the phosphorus passed away slowly oxidised in the urine.—*Wiener Medizin. Wochenschr.*, January 21st, 1871.

PERCHLORIDE OF IRON AND MANGANESE IN NECROSIS, FISTULOUS SINUSES, AND HYDROCELE.—Professor Marcacci, in an essay on this subject in the *Revista Scientifica di Siena*, arrives at the following conclusions. 1. Perchloride of iron and manganese, injected into fistulous sinuses, destroys the pyogenic membrane, modifies the state of the walls, and favours cicatrization. 2. In necrosis, it acts on the confines of the living bone, stimulating its vessels; so that the detachment and separation of the dead bone are facilitated by the formation of new vessels in the living. 3. In hydrocele, it soon modifies the inner surface of the tunica vaginalis, which becomes filled with plastic exudation, attended with more or less inflammation, according to the quantity and strength of the injection used. 4. It is not necessary that the tunica vaginalis should be distended by the injection; it is sufficient that the liquid be brought into contact with all parts of the membrane. 5. Very little pain is produced by the contact of the solution, but it is not the less efficacious. 6. A weak solution is sufficient, which should be kept in two minutes. 7. In seven cases of hydrocele in which the injection was used, hard œdema followed, but was not a serious complication.—*L'Imparziale*, January 16th, 1871.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, Medical Appointments and Trials, Hospital and Society Meetings, important Inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, FEBRUARY 4TH, 1871.

IS IT PROPER FOR CONSUMPTIVES TO MARRY?

THIS is a question which concerns our community more perhaps than any other; for consumption is justly described as the scourge of this country, and the question here put is one which practising medical men are but too frequently placed under the sad necessity of answering. Dr. Hartsen has been discussing it in Virchow's *Archives* in an article in which he offers a dangerously lenient solution to the question. He does not, of course, affect to deny the melancholy fact of the hereditary transmission of phthisis, but admitting it, his argument runs thus.

This is a complex question. Many, considering this hereditary transmission of phthisis, will answer in the negative. Yet it is certain that successful love, by enlivening all the functions, must contribute to cure the sick, while disappointed affection may readily induce a fatal result, and thus bring misery not only upon the party immediately interested, but also upon others. Now, I ask, is it allowable to imperil the lives of several persons on account of children who may or may not be born? There is no law by which the children of consumptives necessarily inherit any pulmonary disease, and, still less, consumption. But, even if the inheritance were inevitable, it should be remembered that death must arrive sooner or later, either by consumption or from some other cause. Now, it cannot be assumed that a consumptive is necessarily less fortunate, less estimable, less talented, or less useful, than other men; and we therefore cannot perceive any reason why his lot should be rendered more unhappy than his neighbour's. If none but valid men should marry, the world would come to a pretty pass. Besides, it is not to be forgotten that the therapeutics of phthisis are improving, and our children will advance them more than we have done. Before the offspring of such marriages become liable to the disease, many a discovery may be made that will render the disease more tolerable and less destructive. Moreover, consumptives escape certain dangers to which strong men are exposed—death in battle, for instance. It is often assumed that sexual relations are especially exhausting to consumptives, and that they are bound to live a life of total abstinence from carnal indulgence. But this is an exaggeration. Sensible people will enjoy with moderation. Besides, sexual indulgence is less exhausting than certain persons, who have concluded that the grapes are sour, would have us believe. Married people often grow fat, and do not commonly look weak and ailing.

To this plausible argumentation Professor Virchow replies:

Although unused to answer articles published in my *Archives*, I must here make an exception, because the question mooted by Dr. Hartsen demands the most careful judgment, and because even the opponents of truth ought not to be silenced. The answer to the question propounded by him will be diversely answered by a consumptive and by a healthy man. The former, quite independently of the fact that persons of a weak and nervous temperament are prone to sexual pleasures, will reply in the affirmative. He will reason after the fashion of Dr. Hartsen, and possibly even go so far as to subordinate the question of marriage and of family to the desire for sexual indulgence. Passion overrides judgment: even a consumptive who is also a physician may not be proof against its delusions. I well remember one of our most accomplished morbid anatomists, who belonged to a tuberculous family, and had, indeed, lost his father and two brothers by consumption. While still a young man, he fully resolved never to marry. Nevertheless, his time and

fate overtook him: he married; and before a year had passed, an acute attack of the disease put an end to his life. As men, let us judge not, lest we be judged; but as physicians, let us not be guided in this matter by consumptives, even although they happen to be physicians. However we may dissuade from sexual indulgence and from marriage, there will be consumptives enough to make light of our judgments. We cannot and we will not proclaim an interdiction, but shall fulfil a moral duty when we raise a warning voice and dissuade from a course of conduct which may become most disastrous to the consumptive, to his family, and to his posterity.

As regards persons of consumptive tendencies, it cannot be doubted that tubercle of the sexual organs of the male (testicles, vas deferens, prostate) most commonly occurs about the age of puberty and during the first years after the commencement of sexual relations, although I have occasionally met with it at an earlier age. On the other hand, I have seen consumptives of continent habits whose marriage became the signal for the development of tubercle of the prostate, etc. A similar fate, though more rarely, overtakes women after their confinement. I have repeatedly seen tuberculous endometritis directly developed by the puerperal state; and although this affection is less dangerous than tubercle of the prostate, yet it readily becomes associated with tuberculous peritonitis, and is therefore not to be made light of. I will not now attempt to decide how far blenorrhœal discharges from the sexual organs promote tuberculous development in them, yet I feel it my duty to remark that, according to my experience, a catarrhal affection may occasion the development of tubercle in them, just as pulmonary catarrh may induce it in the lungs.

But the question before us relates not only to tuberculosis of the genital organs, but also and mainly to the influence of sexual indulgence in hastening the course of the pulmonary disease or in provoking its relapse. For a long time the deceptive doctrine was preached that pregnancy and childbed exerted a favourable influence upon the course of phthisis, and even upon the tuberculous predisposition. Grisolle and Dubreuilh, however, demonstrated the contrary; and while I, on the strength of numerous observations, am ready to acknowledge that this rule is happily not without exceptions, yet it must be admitted by every experienced physician that parturition involves great danger to tuberculous females. Let it also be considered that not a few women predisposed to consumption refuse, either from sentiment or from necessity, to deprive their infants of the maternal food, and that suckling is one of the most deleterious influences among those that determine the fatal downward course of phthisis.

Dr. Hartsen appears to have had more regard for wives than for their husbands. The men are emphatically advised to be prudent and moderate. But what chance has reason against the allurements of sense? A young husband has seldom the opportunity to be moderate, for the danger of marriage consists in the very facility of erring. And, in point of fact, nothing is more common than to see young men belonging to consumptive families perish in the first years of their marriage. How numerous are the young widows made by such espousals!

But Dr. Hartsen, it appears to me, estimates too lightly the dangers to which the children of consumptive parents are exposed. He rather suggests the hope that the marriage of such persons may be unfruitful. But no man marries expecting to remain childless. He comforts himself with the reflection that *all* the children of consumptives are not necessarily tuberculous. But in truth there are but few whose health is not delicate, and who are not in danger at least of leaving to their own children the seeds of the disease, or a predisposition to it. And of these children how large a proportion die of phthisis! However, Dr. Hartsen has at least this faith in the next generation, that it will rapidly advance in its knowledge of curing the disease.

I imagine I have contributed something to inspire this hope, in banishing the ghost of tuberculosis which haunted a goodly number of consumptives, and especially of persons affected with pulmonary phthisis. Many a case of chronic bronchitis, and many of caseous pneumonia, is curable, merely because it is not tuberculous. But it cannot be assumed

that all consumptives are tuberculous, and that caseous pneumonia creates no heritable tendency. In my judgment, medicine will never attain to the complete cure of consumption; and therefore it is a sorry consolation to one's self and family to bid them confide in the therapeutics of the future.

Not long ago, and soon after one another, two anxious fathers, in both of whose families consumption had inflicted cruel bereavements, consulted me respecting the proposed marriage of their children. On this, as on similar other occasions, I advised that the young persons should be fully informed of the danger they incurred, and that they should then be allowed to decide the question on their own responsibility. In my opinion, that is the very last limit of concession which a physician ought to yield. In former times lepers were forbidden to marry; but the more humane spirit of our age forbids such constraint. Yet we are as little warranted in advising consumptives to marry, as those who have a hereditary tendency to insanity.

MEDICAL REFORM.

SINCERELY desiring to see the cause of Medical Reform advance unimpeded by jealousies or ill-feeling of any kind, we abstain from making the obvious comments which might be furnished by the recent course of the *Lancet* in suppressing the official communications describing the Association scheme of Reform, forwarded for publication in its pages by the chairman of the Medical Reform Committee of the British Medical Association appointed at the general meeting of the Association at Newcastle, and in substituting some remarks of its own. If that journal desire seriously to lay claim to any part of the representative character of which it speaks, it must feel upon reflection that it can have no just excuse for deliberately suppressing the scheme adopted by a committee which constitutionally represents a constituency of over four thousand elected members of the profession; and, if it really have any confidence in its own "statesmanlike" modifications of the plans of the Government and the Association, it need not fear to place the Association scheme fairly before its readers in the concise form in which it has been presented to them for publication. We abstain from giving expression to the general professional indignation excited by its gratuitous and incomprehensible insults addressed to the official delegates of the Association, who desired, in all courtesy and good faith, to make known through its pages, and very briefly, the course of action which it has been determined to adopt, and the reasons for it—a matter of interest and of some importance to the whole profession. That journal has so often availed itself of quantities of valuable matter which the Association has, through our agency, freely placed at its disposal, that we feel especially justified in urging that it should cease to suppress, and should at once publish, the brief but important documents which have been addressed to it for publication by Dr. Waters, on behalf of the Committee of the Association of which he is the chairman. We feel the more justified in urging this course, because, while withholding them from publication, the writer in that journal has—no doubt, unintentionally—commented on them in terms which are held to seriously misrepresent their significance.

MR. SPANTON and Mr. Charles Orton paid a visit to some of the ambulances around Sedan, at Saarbruck, and in Germany; and their account of *What we observed during a Visit to the Seat of War in 1870* is, we can vouch, intelligent and trustworthy.

MR. WALKER, the Steward of St. Thomas's Hospital, came before Mr. Chance, the presiding magistrate at Lambeth, to offer full explanations in refutation of the absurd charge, informally made there, that a woman had suffered amputation for a tumour of the arm without her knowledge or consent. It is no doubt well that a public refutation should be given in the same place in which the charge was made.

WE understand that the authorities at Guy's Hospital have met with no difficulty in carrying out the recent regulations regarding the examination after death of the bodies of all patients who have died in the Hospital.

A PUBLIC meeting has been held at Swindon, at which it was unanimously resolved to establish a Cottage Infirmary for that town and neighbourhood; and an influential Committee was appointed for the purpose of carrying out the resolution.

THE sum of £737:4:6 has been already subscribed towards the intended Infirmary at Devizes; but it is now proposed to erect a building which will provide accommodation for the Devizes Dispensary, as well as an isolated ward for infectious cases.

THE House-Surgeons, the Dispenser, and the Resident Medical Officers, of the Brighton and Hove Dispensary have been hitherto, in accordance with the rules, elected yearly; but, that arrangement having been found to be excessively inconvenient, the word "yearly" has been omitted from the rules.

IT is announced that an action for damages, laid at £1,000, has been brought against Miss Jex Blake by Mr. Craig, assistant to Professor Christison, for her public statements in which, it is alleged, she attacked his conduct on the question of admitting female students to the wards and classes as only to be palliated on the hypothesis of drunkenness.

AMONGST the objections raised in the police-courts to vaccination, one urged this week is altogether logical if not quite convincing. The defendant objected to vaccination on the same conscientious ground as he objected to life assurance and assurance against accidents—that it implied rebellion against Providence.

WE have received a little pamphlet, *Ought the Contagious Diseases Acts to be repealed?* In gentleness, truthfulness, and sobriety of thought and diction, it is a model for imitation. Its circulation would at least remove the prejudices raised by the sadly untruthful and exaggerated documents which have been current. It bears, however, neither printer's, publisher's, nor author's name.

MR. CHARLES GERARD, a "coach" for the Preliminary Examination in Arts of the London Medical Corporations, was fully committed for trial at Bow Street on Friday last, for having incited a printer in the employ of Messrs. Gilbert and Rivington to steal a proof of one of the papers of questions for a forthcoming examination at the Apothecaries' Hall. Bail was accepted.

TWO additional cases illustrating the efficacy of the injection into the veins of ammonia in snake-bite, on the plan of Professor Halford, are published in the Melbourne papers. They are reported with great decision of statement as to the immediate benefits conferred, but without the scientific precision of detail which is needed, and which will, we hope, be forthcoming.

WE called attention last week to a statement forwarded to us by one of our members, in a cutting from a Kentish paper, describing a certificate of insanity furnished by a chemist. We learn that the statement there made, and to which we referred, was incorrect; and that the certificate was furnished by Mr. Reid, surgeon—not, as there stated, by Mr. Reeve, chemist.

ON Tuesday, Mr. Humphry Nicholls of Manchester presented to Mr. Robert Gladstone, the Treasurer of St. Mary's Hospital, the sum of £9,000, to be applied to the funds of that institution; and an additional sum of £9,000 for the Barnes's Convalescent Home at Cheadle-Hulme. These donations, with others previously given, make a total of £20,000 given by Mr. Humphry Nicholls to the above named institutions.

A CASE of poisoning by inadvertent use of too large a dose of chloral hydrate is reported from Whittleton, Northamptonshire. The deceased was fifty-one years of age, was rector of the village, and had lately accustomed himself to take chloral hydrate in lieu of opium, to relieve sleeplessness.

THE 157 fatal cases of small-pox in London last week showed a decline of 31 upon the previous week. After distributing the 16 deaths in the small-pox hospitals at Islington and Hampstead among the districts from which the patients were admitted, it appears that of the deaths from small-pox in London last week, 55 may be assigned to the east group of districts, 21 to the west, 36 to the south, 25 to the north, and 20 to the central. The numbers in the east districts were the same as in the previous week; those in the north and west showed a decline, but those in the south and central districts were more numerous. In Hoxton Old Town sub-district, no fewer than 14 out of the 20 deaths registered last week were cases of small-pox.

EDINBURGH UNIVERSITY CLUB.

THE Edinburgh University Club will dine at St. James's Hall, Regent Street, on Wednesday, February 8th; E. C. Batten, Esq., in the Chair. The annual general meeting will be held at six o'clock.

NITRATES IN POTABLE WATERS.

MR. CHARLES EKIN has found considerable quantities of nitric acid in spring water, for which he could not account by supposing it to come from sewage-contamination. Closer examination showed that the water in question had passed through a fossiliferous stratum. This observation necessitates, he thinks, a modification of the "previous sewage contamination theory".

HOSPITAL ANNIVERSARY FESTIVALS.

THE annual festival of the Hospital for Sick Children will be held at Willis's Rooms on February 18th; the Right Hon. the Earl of Derby in the Chair. The Committee of the Victoria Park Hospital for Diseases of the Chest announce that the anniversary festival will take place at the London Tavern on Wednesday, March 29th, when J. D. Allcroft, Esq., will take the Chair.

PROFESSOR WILSON'S COURSE OF DERMATOLOGY.

MR. ERASMUS WILSON, Professor of Dermatology, is delivering a course of six lectures on Dermatology in the theatre of the Royal College of Surgeons, on Mondays, Wednesdays, and Fridays, at 4 P.M. The course commenced on Monday, January 30th. The following is an outline of the programme. I. Plan of the course; demonstration of the specimens of cutaneous disease in the College Museum; arrangement of objects, pathological and physiological; classification of skin-diseases as follows: diseases of common inflammation; diseases due to blood-poisons; diseases of diathesis; diseases of function; diseases of the epithelium; diseases of the hair-system; diseases of the gland-system; Eczema.—II. Eczema and its various forms continued.—III. Scabies, Lichen, and Impetigo.—IV. Constitutional Treatment of Cutaneous Diseases; Erythematous Affections contrasted with Eczematous Affections; Erythema, its various forms.—V. Erythema continued; Urticaria; Phlyctenous Affections; Pemphigus.—VI. Herpes; Furunculous and Pustulous Affections; Ecthyma.

SMALL-POX IN THE METROPOLIS.

CONSIDERABLE difficulty is experienced in obtaining reliable information as to the proportion of deaths from small-pox occurring among vaccinated and unvaccinated persons respectively. With reference to this point, one of the London registrars reports to the Registrar-General that "if medical men would only add to their certificates of the cause of death in cases of small-pox 'vaccinated' or 'not vaccinated', as the case might be, the returns might be perfect". Such returns to be of real worth should, however, specify the number of the marks and their value; *i.e.*, the degree to which they are pitted and characteristic.

A DOUBTFUL INFLUENCE.

THE programme of "The Philadelphia University of Medicine and Surgery", for male and female students, "on equal terms", has been forwarded to us. It announces that "in all the colleges of Europe and America where females have been in attendance, it has been found that the presence of ladies has had a refining and stimulating influence upon the sterner sex."

THE RESULTS OF THE CONTAGIOUS DISEASES ACTS.

IN a paper published in the *Journal of the Statistical Society of London*, the latest known statistical results of the Contagious Diseases Acts are detailed by Mr. Berkeley Hill. The percentage of enthetic disease in the public service has in four years been reduced from 22 per cent. to 11 per cent. in the districts under the Acts; the number of public women has been reduced in the Devonport district from 1,960 to 564; the number of disorderly houses, from 410 to 131; the ratio of disease among these women, from 41 per cent. to 24 per cent. As to the indirect influence of these sanitary Acts upon the condition of the civil population, it appears that the number of paupers entering the work-house suffering from enthetic disease in the three years previous to the operation of the Acts was 855, and in the three years last past was 222; and their general influence, even thus locally applied, may be judged from the fact that, while in 1864 16 per 1,000 of intending recruits needed to be rejected for constitutional enthetic disease, in 1868 12 per 1,000 were rejected.

THE HUNTERIAN SOCIETY.

THE annual oration of this Society will be delivered in the Theatre of the London Institution, Finsbury Circus, on Wednesday next, at eight o'clock. The orator is Mr. T. B. Crosby. At the conclusion, a *conversazione* will take place, and various objects of professional interest, drawings, instruments, etc., will be exhibited. We understand that any member of the profession who may incline to attend will be welcome.

TREATMENT OF GERMAN WOUNDED AFTER BATTLE.

A MOST trusty eye-witness has described the state of the wounded received into the Chateau Hospital at Versailles after the last great sortie from Paris on the 19th of January. At the time of his observation, there were large numbers of the wounded soldiers matted on the cold floors, each with a piece of dry bread at his pillow, and nothing more. Although twenty-four hours had elapsed since they had been struck down, they had not up to that time had any nutrient drink or stimulant given to them; no broth, wine, tea, nor any like warm restorative. And this was the condition of the wounded at the Imperial head-quarters—at Versailles, where the highest in rank and many of the wealthiest princes of Germany were congregated, with all the dainties of the Hôtel des Réservoirs at hand; and under circumstances, too, where certainly it does not appear unreasonable to expect that every preparation would have been made for an occurrence which had been for some time looked forward to happen daily. Yet to Dr. Russell, the experienced *Times* correspondent, than whom no one living, perhaps, has seen more of the passing events of war under all conditions of nationality and place, this appeared nothing extraordinary. To expect that the wants of these miserable sufferers should be better attended to, would be to expect luxuries that are not admissible in the ambulance-arrangements of foreign armies, whatever they may be in British field-hospitals. Dr. Russell, writing from the Crown Prince's head-quarters at Versailles on January 23rd, the fourth day after the sortie, thus expresses himself on the subject: "The Galerie des Glaces, in which the King was declared Emperor of Germany the day before the sortie, is now an hospital ward filled with wounded; and I am sorry to say that, in the opinion of our medical officers, they are not provided with essentials. They just lie on mattresses as they are brought in, and the surgeons attend to them *secundum artem* as fast as possible. I am inclined to think, however, that our military medical officers have a higher standard for field-service than is accepted in other

armies; and British soldiers have no reason to complain, whatever fretful generals desirous of rapid movements may have." The necessities involved in facilities for rapid movement could have little to do with the absence of the first necessities of the wounded in the Chateau at Versailles; and we are rather inclined to quote a passage from the letter of Colonel Loyd Lindsay which appeared in the *Times* of January 30th, as an explanation of the wants alluded to; viz.: "Cannon and rifles and weapons of destruction stand higher in the estimation of this great military nation, than those things which are intended for the relief of the sick and wounded."

UNIVERSITY OF LONDON.

IN consequence of a report made to the Senate of the University of London by the Examiners in Physiology, setting forth the insufficiency of the present *viva voce* examination as a test of the practical acquaintance of candidates with histology and practical physiology, an important alteration has been made in the regulations of the first Bachelor of Medicine Examination. The alteration will take effect in the year 1872 and subsequent years, and the Registrar has been directed to notify to the various medical schools in connection with the University that the Candidates for the first Examination in Bachelor of Medicine will be required to pass a practical examination in Histology. The requisite provision is to be made in the University building for carrying out the following plan, which has been suggested by the Examiners, and approved of by the Senate. The candidates are to be examined in convenient batches, placed in a suitable room, fitted up with microscopes, glasses, reagents, needles, scissors, and razors. Each student is to have placed before him a few characteristic mounted specimens, and portions of fresh tissue or tissues prepared for minute examination, all numbered and carefully selected, and to be given three hours in which to examine and report upon the specimens presented to him, as well as to mount certain specimens of particular organs or tissues, as may be required by the Examiners. In this way, it is felt, the possession of mere book-knowledge by the candidate will be at once disclosed, and the physiological examination will be made a real and satisfactory one.

TARIFFS OF FEES.

DR. HARDIE and Mr. Braddon, the Secretaries of the Manchester Medico-Ethical Society, write to us:

"As considerable credit seems to be given to, and taken by, the Shropshire Ethical Branch of the British Medical Association for the tariff of fees it has recently published, we think it due to the Association of which we are Secretaries to inform your readers on certain points concerning it. Any one ignorant of the facts of the case, who may have read the letter of 'One of the Council' in your last impression, will doubtless have thought that the Shropshire Branch had bestowed great pains and trouble in planning and arranging this tariff. Now, although in the introductory remarks to the tariff, as published in your columns, it is stated that it is 'founded upon that of the Manchester Medico-Ethical Association, an abstract of whose arguments thereto is herein embodied,' it would probably never be supposed that it is, with the exception of the part relating to the supply of medicines, almost a reproduction of our tariff. Not only is the principle on which it is founded the same, but its divisions and mode of construction are identical. Our introductory remarks have been somewhat curiously touched up—sometimes by using a different word or expression, *e. g.*, 'most emphatically' for 'distinctly', 'high professional status' for 'enhanced reputation', and so on; sometimes by omitting a sentence, rarely by adding one; and then our arguments have been 'embodied'. The tariff itself in ours is divided into four classes, the fourth comprising such as live in houses above £100 rental. These are omitted in the Shropshire tariff, so that it has but three classes. Then come the various items for which fees are fixed. This is all but identical with ours. The fees themselves have necessarily been revised and altered—not much altered, however. There is certainly more overlapping—a matter of which your Sunderland correspondent complained; and by so much the tariff is, of course, diminished in value as a 'guide for the junior practitioner'. We conclude with seventeen explanatory notes. The new tariff does the same, on the same subjects, and in nearly the same words, except that one of ours is omitted, and a new one (relating

to medicines) is added. 'Owing to the inherent difficulty of the subject', our Committee fixed no fees for surgical operations. Ditto ditto as regards the Shropshire Branch. The latter has, however, addressed itself to the subject of the prices of medicines. This (so far as our tariff is concerned) is original in theirs. We question much, however, whether, as a medico-ethical society believing 'that medical men should found their claim to remuneration *solely upon the value of their time and skill*, and altogether ignore the objectionable system of drug-payment,' they were quite justified in introducing it. We fear that, according to sound ethics, it must be regarded as a retrogression. Now, all this being so, we scarcely think there remains much to be placed to the credit of the Shropshire Association. We believe that the Medico-Ethical Association of Manchester was the first in this country to deal successfully with this difficult question. Its tariff was published four years ago; and since then it has had several imitators, thus showing that its merits have been appreciated. Whether it has been improved upon by the Shropshire or any other Association, is very doubtful. We would take leave, in conclusion, to say that we think it would have been becoming had the Council of the former acknowledged in some way to our Committee its indebtedness to it for its difficult and successful undertaking. We may add that copies of our tariff may be had from the publisher, Mr. Cornish, Piccadilly, Manchester; and that an abstract is published in Letts's Medical Diaries."

It is of course due to both Societies to publish this reclamation. In doing so we may however, observe, that the opening statement of the Shropshire Ethical Branch, that its tariff was founded upon that of Manchester, was a very open and prominent acknowledgment of indebtedness, which we apprehend there could be no possible reason for concealing or diminishing. We are aware that, whether the revision was advantageous or not, it involved a great deal of care and trouble to the Shrewsbury Council, and especially to its honorary secretary, Dr. Jukes Styrup. It would be desirable that correspondence on the subject of the tariff should be directed rather to the advantages of its adoption in one form or other as a guide and standard, than to questions of priority. We should be glad to see the tariffs, either or both of them, brought officially by their authors under the cognisance of the Councils of all our Branches, with a view to discussion at the Branch meetings; and we suggest to Dr. Hardie and Dr. Styrup that they should adopt this course.

SUPPLY OF LYMPH.

MR. BERKELEY HILL writes: "I see in this week's JOURNAL an account of the difficulty of obtaining lymph for vaccination at the Tottenham Court Road Station. As I also applied there last Wednesday with that object, and experienced very different treatment from that narrated by your correspondent, I think it only fair to the public vaccinator of that station to say so. I feel quite sure that no exception was made in my favour, as the vaccinator does not know me personally, and I did not mention my name to him. There was an abundant supply of children. One was put at my disposal immediately; and other practitioners, applying at the same time as myself, were given points as they asked for them." Another correspondent writes: "'We shall have no lymph to spare for several weeks.' This is the reply which I have just received from the nearest public vaccinator in my district, after sundry applications. It is true that I received two charged tubes from the head office in Whitehall Place some week or so ago; but, as I had eleven adult patients to vaccinate immediately, and double that number requesting the operation, what are they among so many? I am told to vaccinate a baby first, and then supply myself; but in private practice this is no easy matter, and the present is an exceptional time. Small-pox is raging; people are alarmed; and, for every baby in my practice requiring vaccinating, I have perhaps ten adults (from whom I cannot take lymph), who will not wait a week till I have got a supply from a baby, but 'must be done at once', so that I cannot spare any for the babies. I find, in private practice, many mothers object to having 'matter' taken from their children; which is another obstacle. Through the kindness of Mr. Tomkins, I used invariably to be able to meet any pressure on this score; but, just at the very time when there should be an office in every parish where a plentiful supply could be had on application, his name has been struck off the list, and White-

hall Place is the only source where lymph can be obtained. What is the use of talking about compulsory vaccination, without a plentiful supply of lymph? And why are not the offices where it may be obtained multiplied, instead of diminished, at this very critical time? You, sir, may not be able to answer these questions; but, by giving the subject publicity, the Privy Council may be roused to try and meet the emergency, and thereby extricate many besides myself from one of the numerous trials which beset a medical practitioner."

THE VACCINATION QUESTION AT LEEDS.

WE are glad to find that, notwithstanding the opposition of two members of the board, who declared themselves "opposed to vaccination", the Leeds Board of Guardians have resolved to carry out the law of compulsory vaccination, which, for the protection of the many, refuses to allow the fanatic and ignorant few to remain as firebrands and centres of possible infection. These persons might be opposed to the laws against storing gunpowder in populous places: it ought not to be, and is not legally, any more open to them to carry out that form of fanaticism, than the desire to leave their children open to the risk of being the victims and propagators of small-pox. A Mr. Kenworthy made the atrociously ignorant statement, that "vaccination was no preventive of small-pox whatever". If that were so, instead of losing from small-pox a thousand or more victims to the partial and criminal neglect of vaccination, as we are now doing, we should be losing sixty thousand annually from small-pox, as we were wont to do in these islands before the introduction of vaccination. His reference to Paris, where he stated that ninety-six per cent. of the persons suffering from small-pox had been vaccinated, is equally opposed to the facts. The population there has been very imperfectly and carelessly vaccinated, and have suffered largely from fanciful and badly carried out vaccination from the cow; but where the Jennerian vaccination has been carried out, it has proved there, as everywhere, a complete defence against the small-pox, and of this we have already given the evidence.

RECORDS OF CONTAGIOUS DISEASES.

WE have already commented on the means taken by the Board of Health of New York to secure prompt notice of the existence of contagious diseases in given localities in the city. Dr. Charles Russell, the Registrar of Records of Vital Statistics, makes the following statement in the columns of the *New York Medical Gazette* of January 14th, in order "to explain to physicians their duties in cases of death, specially determined by this department."

"Sec. 167 of the Sanitary Code, which lately required all deaths to be reported within twenty-four hours, was amended by the Board on December 28th last, and now reads as follows: 'It shall be the duty of each and every practising physician in the city of New York to report, in writing, to the Board of Health, the death of any of his patients who shall have died in said city of contagious or infectious disease, within twenty-four hours thereafter, and to state in such report the specific name and type of such disease.'

"The diseases referred to by the above ordinance are defined in Sec. 5th of the Sanitary Code to be: Cholera, yellow fever, small-pox, diphtheria, typhus, typhoid, spotted, relapsing and scarlet fevers, as well as 'any new disease of an infectious, contagious, or pestilential nature, and also any other disease publicly declared by this Board dangerous to the public health.'

"The above-mentioned reports will be made upon special blanks, which are about to be distributed among the profession. In such cases, however, as well as in all other cases of death, the usual certificate of death must be filled out, and be deposited in this bureau within thirty-six hours after death (Sec. 150 of Sanitary Code), upon the responsibility of the attending physician."

THE FEEDING OF INFANTS.

AT an inquest lately held at the Marylebone Workhouse, on the body of an illegitimate child named Arthur Wiseman, aged 2 months, it was elicited that the mother, being without breast-milk, fed the deceased on corn-flour and nursery-biscuits. Mr. Charles Dowd said that he saw deceased when he was in a dying state, the body being very much emaciated. It weighed only between four and five pounds. The *post*

mortem examination showed that the lungs, etc., were healthy, and that the stomach contained farinaceous food. The cause of death was starvation from want of proper nourishment. Mr. Dowd, in reply to a jurymen, said that he did not approve of corn-flour for young children. The coroner, in addressing the jury, said that he could not understand mothers giving the babies corn-flour. When the mother could not suckle the child, milk was the proper food. In the course of the year he held numerous inquests on infants whose lives were sacrificed from improper feeding. There was no excuse for not getting proper milk. When genuine new milk was not attainable, there was the Anglo-Swiss Condensed Milk, which would keep a long time, and was as cheap as, or cheaper than, ordinary cow's milk, and possessed all its properties. A friend of Dr. Lankester's, a medical gentleman, had fed his infant on the Swiss milk for eight months, and it had thriven well. He thought it an article well suited for the children of humble parents, especially of those living in confined localities, where it was next to an impossibility to prevent cow's milk from turning sour. He did not know what the new School Boards were going to do; but it was to be hoped that one branch of their system would be to instruct the females in the elementary rudiments of infant-management, which would result in the saving of a vast number of infant-lives, and be a great pecuniary gain to the nation at large. The jury thanked the coroner for his observation, and returned a verdict in accordance with the medical testimony.

THE CHOLERA EPIDEMICS IN EAST AFRICA.

IN an interesting paper read recently at the Epidemiological Society, Dr. Christie of Zanzibar described the different cholera epidemics which have occurred in East Africa. The first epidemic of which there is any definite knowledge began in December 1835 and January 1836, during the prevalence of the north-east monsoon. The disease was first heard of in the Sonato ports, and it extended gradually along the coast, in the direction of the monsoon, from north to south, to some undetermined point south of Zanzibar, attacking that island in its course. The second known epidemic occurred in 1859-60. This, like the previously recorded epidemic, broke out in the months of December and January, during the strength of the north-east monsoon. The disease was first heard of in the Somali ports of Mukdesha and Brava. It passed rapidly along the coast to the southward, desolating the towns and the populous islands which fringe it, including Zanzibar, and extended as far as the Portuguese settlements on the Mozambique. The third epidemic was first heard of at Zanzibar, in April 1865, as prevailing in the Somali ports towards the close of the north-east monsoon. Its extension was limited, not passing lower on the coast than Mombassa. When the south-west monsoon set in, shutting off all traffic to the southward, the progress of the disease in that direction was arrested; but the epidemic struck off to the interior of Africa from Melinda, and prevailed to a considerable extent in Ukambano. The fourth epidemic, which has hardly yet come to an end, was first heard of as approaching Zanzibar in October 1869. This epidemic differed remarkably in its line of approach from the previous epidemics. The earliest news of it in Zanzibar came not from the Somali coast, but from the interior of the continent. It was reported, towards the end of October 1869, that caravans passing through the country of the Wamasai, a district lying between the Victoria Nyanza and the east coast, had been attacked by a deadly plague, and that this fatal disease had extended through the Usambara country, and to the coast towns of Tanga and Sangani. This "plague" proved to be cholera; and on October 27th, if not earlier, the epidemic appeared in Zanzibar, between which island and Tanga and Sangani communication by native craft is almost of daily occurrence. Subsequently, the disease passed northward along the coast, against the monsoon, carried by slave boats, to Mombassa, Malinda, and Lamoo; and from Mombassa the epidemic passed into the interior among the Wanika. South of Zanzibar, the epidemic spread to the whole of the coast towns as far as Cape Delgado; and it was carried by native craft to the Comoro and Johanna Islands. There was a recandescence of the epidemic in Zanzibar and some

of the coast towns in January, or early in 1870; and in May it appeared at Mozambique. Mombassa was not the only point from which the epidemic left the coast to pass inland. It is believed that every infected town on the mainland disseminated the disease to a greater or less extent in the neighbouring country. From Bagamoyo, a port nearly opposite Zanzibar, it is known to have followed the great ivory caravan route to the interior, and raged in Usegura, Usagari, Ugogo, and Ingunda Inkhali, at an early period of the epidemic. The mortality from this outbreak was frightful in many localities. It is estimated to have amounted to 15,000 in the town and suburbs of Zanzibar, among a population estimated at 70,000; and to 25,000 throughout the island, the entire population probably amounting to 300,000. In addition to Dr. Christie's paper, extracts from official communications of Dr. Kirk, Her Majesty's Acting Political Agent and Consul for Zanzibar, relating to cholera in East Africa, and communicated through the Medical Department of the Privy Council, were read by the Secretary. The principal facts stated in the official correspondence had been included in Dr. Christie's paper. The Secretary, also, made known to the Society that information had been received from Tamatane, dated October 10th, 1870, to the effect that a disease resembling cholera had broken out at Mojanga, on the north-west coast of Madagascar. The discussion on Dr. Christie's paper was adjourned to the next meeting of the Society, February 8th.

SMALL-POX AT CROSSENS.

THE strictures which we recently published concerning the neglect of vaccination in the Ormskirk Union, and especially at Crossens and the Meols, have not failed to induce an energetic sanitary action on the part of the authorities. The borough of Southport is included in this district; and, in the opinion of the authorities of that place, the special designation of Southport was an injustice to that town. Any one, however, who looks back to the note as it appeared in the JOURNAL will see that the localisation of small-pox at Crossens was quite specially indicated. The Mayor has called a meeting of the medical men in the town, who have signed and forwarded us the following communication.

If your paragraph had been headed "Small-pox at Crossens", which is a hamlet four miles distant from us, and if your strictures had been directed against the negligent population who can hardly be induced to attend to any sanitary matters at all, you would have put the saddle on the right horse; and, possibly, if you had admonished the Guardians of the poor of the Ormskirk Union (who are the authorities charged with carrying out the Vaccination Act in this Union) to redouble their efforts to enforce vaccination, we should have gladly welcomed your moral support in urging upon a reluctant or apathetic population the observance of a law the authority of which has been lately much undermined in this district by the mischievous activity of the Anti-Vaccination League. By taking this course, moreover, the sanitary reputation of our undoubtedly healthy borough would not have been needlessly jeopardised.

The facts of the case as regards the borough of Southport are few and simple. There has been no epidemic of small-pox in the borough. During the last six years there have been three deaths from small-pox, and, so far as we know, no more. It would be difficult to find another town in England of equal population (about 20,000) which for the last six years has enjoyed equal immunity from this disease.

It unfortunately happens that in the hamlet referred to above there have been several cases of small-pox; but it must be obvious that the borough authorities of Southport have no sort of responsibility for what has occurred at a place three or four miles off, especially when it is remembered that not only the place, but the enforcement of vaccination in it, is wholly outside their jurisdiction.

The borough authorities of Southport have nothing to do with carrying out the compulsory Vaccination Act; and, consequently, no "other appeals" can possibly ever have been made to them to enforce it, or, if made, followed by any practical effect. The borough of Southport is included in the district over which the Ormskirk Guardians have power to enforce vaccination; and the Guardians delegated from Southport to the Ormskirk Board are now doing, and have always done, their utmost (from motives of humanity as well as of enlightened self-interest) to promote thorough vaccination all over the Union. As far as the jurisdiction of the borough authorities extends, we have every reason to believe they will act with vigour for the preservation of the

health of the borough; but we submit that they cannot be held responsible for not exercising functions which the law has not assigned them in a place beyond the limits of the borough.

As medical practitioners resident and interested in the borough and neighbourhood of Southport, we feel bound to exonerate the borough authorities from blame, and to set forth the sober truth as to our sanitary condition. Your correspondent, whoever he may be, has gravely misrepresented the facts of the case, and led you, by confused and imperfect information, into doing an unintentional injustice and injury to a favourite sanitary resort, which was never more carefully supervised (within the limits of their powers) by those appointed to watch over its health than it now is.

In conclusion, we cannot avoid remarking that your correspondent would have displayed more public spirit if he had applied to the persons empowered by law to promote his professed objects, and kept what we strongly suspect is a "Parthian arrow" quietly in his quiver.

DR. LANG of Southport writes to us concerning the above:

The statement emanating from the medical men of Southport does not bear my signature, chiefly because the blame therein stated to be due to the antivaccinationists and Ormskirk guardians, for the neglect of vaccination, should be shared by the magistrates sitting at Southport in June 1869. At that period the guardians caused to be summoned before the magistrates several custodians of unvaccinated persons; but, obtaining no convictions, they were discouraged. Since you directed attention to this district, many hundreds have been vaccinated, the more prominent delinquents fined; and we shall soon be able to claim to be considered one of the most generally vaccinated communities in the country.

The people of Southport owe to Dr. Lang no small gratitude for the courageous truthfulness with which he saddles the right horse. Southport should be *sans reproche*. We are glad to find that it is in the way of becoming so; as we look back through the files of reports, recent and past, relating to vaccination proceedings, it would not be difficult, but it would be tedious, to state the facts which fully bear out our former observations and those now made by Dr. Lang. The Mayor of Southport used some foolish expressions recently, imputing that malice of some kind must be at the bottom of these recent comments. We can assure him that our malice is directed solely against the small-pox and zymotic disease, and that we shall be far more pleased to record the complete sanitation of the whole registration district, and to applaud the efforts of the Southport representatives and the Ormskirk board, than to blame their reticence. If they try very much, we are disposed to think that the Southport influence will be found to be stronger than the modest zero at which it is deprecatingly placed in the above document. We do not desire to rake up unpleasant documents, and are therefore content here to draw attention to the statement of our correspondent, and to hope that the authorities who ought to do the work will be made to do it. Already the inhabitants of this district are under no small debt of gratitude to us. Our comments have been far more rapidly effective than the official communications forwarded from the Poor-law Board and the medical department of the Privy Council.

THE SUPPLY OF LYMPH.

WE have received from Mr. Pearse, Public Vaccinator at the Tottenham Court Road Chapel station, a communication referring to a paragraph on the supply of lymph which appeared in our pages last week. He submits that the Tottenham Court Road station is not a lymph-supplying station, but a vaccinating and an educational station; and that, he having exceeded his duty in obliging a few friends and practitioners in the neighbourhood during the present epidemic, the vaccinating-station has since become inundated with medical men requiring a supply of lymph, and he is now hardly able to extricate himself from his position. The applicants for lymph are so numerous that not only are patients and pupils excluded from the operating-room, but Mr. Pearse is rendered unable to perform his duty of forwarding a weekly supply of lymph to the Privy Council. One of our staff had occasion to visit the Tottenham Court Road Chapel station on Wednesday, and we are thus enabled to speak with regard to the matter. The station consists of a very small room, opening into the chapel itself, which is probably all

that is requisite under ordinary circumstances, but is inadequate for the present emergency. From 10 o'clock till 4 o'clock this room was crammed with patients and medical practitioners; and in the chapel an unmistakable chorus rendered it but too evident that Mr. Pearse had heavy work before him, and so it was during the whole afternoon. It may be readily understood that the appearance of a large number of medical men clamorous for an immediate supply of lymph, places Mr. Pearse in a difficult position; and we sympathise with him in his situation. But why should there be such difficulty in obtaining the necessary supply of material? Almost without exception the medical men in the room complained that, although they had appealed to the proper quarter—the Privy Council Office—for lymph, they had either received no answer or a supply totally insufficient for their demands. No doubt the Privy Council supply is diminished in the way that Mr. Pearse states, yet it is not wasted, and reaches the practitioner all the same, but in a less systematic manner. We recommend medical men to apply until further notice direct to the Medical Department of the Privy Council, who have the chief control of all the public vaccinating stations.

CHARING CROSS HOSPITAL.

THE students of the Charing Cross Hospital Medical School have presented to Mr. Edward Bellamy, who has for several years acted, with much popularity, as Demonstrator of Anatomy at the School, a handsome silver tea-service, as a marriage present. A complimentary address was at the same time presented to Mr. Bellamy.

DRILL AND SWIMMING AS PHYSICAL TRAINING.

WE are very glad to find that the London School Board propose to introduce drill as a means of physical training into the schools under their jurisdiction. The Royal Humane Society also desire that swimming should be taught—a more difficult proposition to carry out. The Society of Arts has pressed upon the Privy Council to have drill introduced into all schools throughout England which it is able to influence.

THE CLINICAL SOCIETY.

AT the meeting of the Clinical Society, held on January 27th, Dr. Gull took the chair, and delivered an inaugural address of characteristic thoughtfulness and power, which we print in another page. There was an interesting discussion on a suggestive paper of Dr. Silver (Charing Cross Hospital) on the Use of *Veratrum Viride* in Rheumatism. Mr. Teevan showed some large calculi extracted from the bladder by comparatively free incisions of the prostate, and was very emphatic in denouncing the doctrine that the prostate should under any circumstances, or indeed could possibly, be dilated.

DUST AND DISEASE.

A DISCUSSION has been going on in the papers this week as to potable water for London, in which, however, no new facts are contributed to our knowledge. Professor Tyndall, however, out of whose repetition of his well-known lecture on "Dust and Disease" the discussion arose, makes the somewhat characteristic announcement that he is now beginning to read Dr. W. Budd's papers on the Origin of Typhoid Fever, and that he admires them very much. It might have been expected that before assuming the very magistral attitude which he has adopted of late towards physicians and biologists, this able physicist would have mastered the standard and classical investigations on the subject.

FEMALE MEDICAL EDUCATION.

THERE is, it seems, in Philadelphia an institution, which calls itself the Philadelphia University of Medicine and Surgery, and which takes under its particular patronage the female students, admitting male and female students, not only "on equal terms", but on very easy terms; and, as we hear much of American "lady-doctors" just now, and the liberality of the transatlantic institutions, it may be as well to let this one speak for itself, so far as our space will allow. Four months and

forty dollars appear to be the primary requisites, and the programme is laid out in very large type as follows.

"Owing to the great demand for female physicians, the fees for the spring session have been reduced to forty dollars, thus offering the strongest inducement ever presented to male and female practitioners and students to obtain a full course of medical lectures, and, if found qualified, to graduate either in medicine, surgery, or midwifery—or all of these branches—and to enter at once upon the duties of the profession. Students not sufficiently advanced to graduate in full can do so in midwifery or in medicine (the same as from the universities of Europe), and practice until they become fully qualified to receive the full degree. The Philadelphia University is the only one in this country empowered by the legislature to grant the degree of midwifery, surgery, or the practice of medicine, separately. Thus, a student, male or female, may become a licentiate of medicine only, and can practice medicine under the full protection of the law. Or, they may graduate either in midwifery or surgery, and practice each branch alone."

Our own authorities will be glad to learn that "this plan has been adopted by the Royal College of Surgeons, England, and the University of Edinburgh, with great success." To make the whole arrangement quite snug and complete, one of the lecturers is also the treasurer. The University has also "a drug-store, at which books and instruments are sold" at twenty per cent. less than publishers' and manufacturers' prices, and the teachers are also the examiners of their own students, and furnish the diplomas. It is almost needless to add, although it completes the picture, that this is "a liberal school of medicine, embracing the entire practice of medicine and surgery, without regard to sectarian boundaries or party limits", and that this is "a position in the medical profession heartily endorsed by all the best educated female practitioners." To save the character of the professors for modesty, we ought to add, that "the professors will give such of the lectures as they deem proper to the ladies and gentlemen separately." It is not stated what they will do with those which they deem improper.

SCOTLAND.

MEDICAL EDUCATION OF WOMEN.

A MEETING was held in the City Council Chambers, Edinburgh, on January 27th, under the presidency of the Lord Provost, to consider the present state of female medical education in Edinburgh. Professor Masson suggested that, if the desired facilities were not speedily offered by the Infirmary managers, it might be advisable to consider whether Chalmers's or some other hospital might not be sufficiently enlarged for the purpose. Mr. Wyld remarked that he had no doubt that the ladies would be gladly welcomed at the Children's Hospital, of which he was Treasurer. A Committee was appointed to consider the matter fully.

THE ROYAL DISPENSARY, EDINBURGH.

THE annual general meeting of the contributors to the Edinburgh Royal Dispensary was held on Saturday last. The Report was so far satisfactory; but the managers regretted to say that the subscriptions were insufficient to enable the charity to be continued with any degree of efficiency. It was also becoming necessary to increase the amount of accommodation, for which additional funds were required.

MERCURY IN HEPATIC DISEASE.

AN occasional correspondent writes:

Dr. Hughes Bennett's recent paper on the Injurious Effects which may follow the use of Mercury in Hepatic Disease, read before the Medico-Chirurgical Society of Edinburgh (referred to in our report in another page), has excited some commotion. The case was that of a soldier, who declared that he was violently salivated at Jhansi in 1865. Dr. Bennett produced the man on the evening of February 1st. The man, in answer to questions, declared that he was violently salivated at Jhansi in 1865, and that the inflammation of his mouth, sore gums, and loose teeth, continued for a fortnight. He had been under the care of several medical men since then, who had given him numerous pills and

powders, which he had taken for periods of various lengths, two or three times daily; that his mouth had never been altogether well since, but was constantly better or worse, from taking, as he thought, mercurial pills. Dr. Bennett showed that his gums were still tender and spongy, with a distinct livid line near the teeth, several of which were thin, loose, and carious; and he read a note from Dr. Smith, dentist to the Infirmary, who stated that in his opinion there could be no doubt the condition of the man's mouth was due to the influence of mercury. The man had also laboured under abscess of the liver, terminating in chronic enlargement of that organ, for which he was invalided about the commencement of 1870. On returning to England in 1867, he was treated at Netley by inunction of the iodide of mercury twice and sometimes thrice daily. When discharged from that hospital, and from the service, he was furnished with two large boxes of the ointment, which he continued to rub in over his liver. His mouth again became very sore, but not so much so as it was at Jhansi, and an eruption of mercurial eczema appeared in patches all over his limbs and trunk, associated with patches of rupia, the marks of which still remained. He had incipient phthisis and numerous complications, with other diseases, during his residence in the Royal Infirmary under Dr. Bennett's care, from which he was discharged cured in May 1868. The skin-disease returned at the commencement of the present winter, for which he again entered the Infirmary under the care of another physician, and was discharged cured. A few weeks ago, the cough and expectoration returned, and he entered the Infirmary a third time under the care of Dr. Bennett.

In commenting on the very general practice of giving mercury in hepatic diseases, Dr. Bennett pointed out that in his original paper, read on Dec. 21, he had insisted how strongly this case showed its inutility and occasional danger. He read the following passage: "Nothing can more strongly demonstrate the fixed idea with which medical men are imbued concerning the influence of mercury on the liver, which has been handed down and fostered by almost every teacher of materia medica in this and other countries. The case I have related is not a solitary one. Thousands of our soldiers have been so treated, and many of them thereby have had their healths irretrievably shattered."

Dr. Rutherford, C.B., Deputy-Inspector of Hospitals, who was present at the meeting as a visitor, declared that the statements of Dr. Bennett reflected on the skill of the army medical practitioners, and were, he believed, incorrect. He pledged himself to inquire into the case, and with the permission of the Society, to lay the results before a future meeting. Dr. Bennett, in reply, disclaimed all intention of reflecting on the medical officers of the army, to whom he had never alluded. He maintained that the treatment of hepatic diseases by mercury was a common former practice among army, as well as civil, medical men, but said that, if any passage in his paper had led to misconception on the subject, he would at once withdraw it.

On January 18th, Dr. Rutherford read a paper in which he accused Dr. Bennett of reflecting on that part of the profession to which he belonged, and of ruthlessly attacking his friends and acquaintances. Against such aspersions it was necessary to defend them. He stated that Dr. Bennett had declared that thousands of British soldiers were rendered unfit for service by the abuse of mercury. He then showed some official sheets from Netley, purporting to give an account of the man's career in the army, in which there was no mention of the salivation of Jhansi, but which indicated that he had had primary venereal sores, and twice bubo. The treatment in India consisted of tonics, alteratives, local applications, etc. Dr. Rutherford therefore maintained he had never been treated with mercury at all. It was true, on examining the man himself, it appeared he had used black wash externally, and had a slight inflammation of his mouth at Jhansi, which, he confessed, was "very mysterious." He read a letter from Dr. Corbett, saying that, while the man was under his care in the north of India, he gave him no mercury. He had also heard from Dr. MacLean of Netley, and considered the application of iodide of mercury to be altogether trifling. It was evident to him that the skin-eruption was a venereal one; that the diagnosis of phthisis was as unfounded as the cutaneous disorder, and that the story about mercury was simply ridiculous.

In reply, Dr. Bennett regretted that Dr. Rutherford should have

given an abstract of his case from memory, as he would have been happy to furnish Dr. Rutherford with the manuscript of his paper if required. As it was, his account was full of inaccuracies and misstatements. Knowing that Dr. Rutherford had received documents from Netley, he had requested that gentleman to allow him to examine them, which he had declined to do. The glance which he had been able to give them, when handed round, had only satisfied him that they were incapable, in consequence of their deficiencies, of throwing any light on the discussion. He had previously denied having made any reflections on the army medical department, which only existed in Dr. Rutherford's imagination. He had never stated that thousands of British soldiers were rendered unfit for service by the abuse of mercury. His statement was, "that thousands of soldiers had been so treated (that is, with mercury), and many of them thereby have had their health irretrievably shattered". The case he had related was, in his opinion, a striking example of the truth of his statement.

Notwithstanding the statements of Dr. Rutherford, Dr. Bennett read, on Wednesday last, passages from last Saturday's *Lancet* and *Medical Times and Gazette*, which imputed to him a charge against the medical officers of the army of rendering thousands of British soldiers unfit for duty by the abuse of mercury. The latter journal had even charged Dr. Bennett with stating "that thousands of soldiers are annually invalided, and hundreds lose their lives, in consequence of the abuse of mercury". He (Dr. Bennett) emphatically denied having ever made the statement imputed to him, although from what he had seen, and from the facts of the case now before the Society, he believed the drug to be more generally given than was supposed. He was surprised that gentlemen should forward such very erroneous reports of the Society's proceedings to the London journals, and that the latter should comment on them, as they had done, without inquiry. The continuance of such a practice must greatly injure the Society. He regarded it as an example of the loose and inexact method of observation and writing so common among certain medical writers. Looking at the care with which all his cases were examined and recorded in the clinical wards of the Royal Infirmary, he was astonished that a medical man—a stranger and visitor among them—should have at once accused him of error and inexactitude, and so misrepresented his statements, notwithstanding his denials of them, as to maintain an unfounded charge against him of having attacked his medical brethren of the army. But he had only referred to a general fact, the correctness of which must be recognised by every practitioner acquainted with the literature of his profession. Moreover, he had again gone carefully and anxiously into all the facts; he had found his original account to be essentially true. He was satisfied that the disease of the skin was a mercurial and not a syphilitic one; and now presented to the Society the man himself, that the actual condition of his gums and teeth might prove the accuracy of his observations.

IRELAND.

SMALL-POX IN IRELAND.

THERE were last week as many as seventy-six cases of small-pox in hospital at Belfast, principally cases imported from England and elsewhere. In Londonderry, also, there have been a few cases imported from Liverpool. The results are most favourably modified by the prevalence and excellence of vaccination arrangements; and although the Belfast board has shown a culpable negligence in the past compared with other boards in Ireland, they are, we find, endeavouring to make amends by present vigilance. With proper care, the epidemic will unquestionably be arrested.

VACCINATION PENALTIES.

UNDER the Compulsory Vaccination Act, all the fines for conviction in cases of neglect go to the Crown. The Newport Bench of Magistrates (Ireland) so apportion the penalty in fine and costs that only a nominal part of it goes to the Government by way of fine, the rest being assigned towards defraying the costs, so that the ratepayers are exempted from the expense; for instance, instead of a fine of ten shillings and no costs, they fine sixpence, and nine shillings and sixpence costs. Thus the end is served, and the expense to the ratepayers for the negligence of those who can afford to pay is reduced to a minimum. This hint seems to us worth following.

REPORT OF ANALYSES OF SAMPLES OF HYDRATE OF CHLORAL, AS MET WITH IN COMMERCE.

It was with a certain feeling of alarm that we entered upon the inquiry into the characters and quality of the hydrate of chloral, which is now coming into extensive use as a medicinal agent. That a remedy of such important utility should be open to any kind of suspicion would be a serious misfortune; and, if there were any real grounds for supposing that the quality of this material was variable, it would be a source of great inconvenience to medical men, besides being possibly the cause of still more disastrous consequences to their patients.

For these reasons alone, we have considered it desirable to have a series of analyses made; and with that object we have collected a number of samples from various sources, endeavouring, as far as possible, to obtain in those samples a fair representation of the various makers of hydrate of chloral.

It appears that, for the most part, the manufacturers of this article are German firms. At present, there is but little, if any, coming from France, though we have obtained at least one sample of French make. We are unable to ascertain, as yet, with certainty, whether there is any chloral made in this country, though it has been reported that such is the case to some extent.

The paper published by Mr. Mason in the *Pharmaceutical Journal* of the 7th January was calculated to excite grave doubts as to the character of the hydrate of chloral now in use; and it appeared to favour the statement that has been made as to the alcoholate of chloral being in some cases sold in the place of the hydrate—that is to say, a compound of chloral with alcohol, instead of the compound of chloral with water. The very different physiological effects of these two substances render this question one of great importance, demanding the careful attention not only of medical men, but also of the manufacturers of this article.

The test that has been adopted for the purpose of determining the relative quality of various samples of hydrate of chloral is based upon the reaction taking place when ammonia is mixed with a solution of hydrate of chloral, heated in a closed tube, and left at rest for some time. By this reaction the hydrate of chloral is converted into chloroform, which separates in an oily layer at the bottom of the tube, while formate of ammonia remains in solution as a brownish watery liquid above it.

In a suitable tube, the volume of the chloroform produced in the reaction may be measured off. Chemically pure hydrate of chloral treated in this manner yields 72.2 per cent. by weight of chloroform; and, since the specific gravity of chloroform, as compared with water, is 1.49, ten grammes of pure hydrate of chloral will yield 4.82 cubic centimètres of chloroform.

By operating upon ten samples of the hydrate of chloral in this manner, the following results have been obtained.

No.	Description of sample operated on.	Quantity taken.	Chloroform produced.		Percentage of chloroform.	P. cent. of pure hydrate of chloral.
			Grams.	Cub. ct.	Gms.	
1	White cake (Liebreich)	10	4.61	6.91	69.1	95.70
2	Clear transparent crystalline lumps (Liebreich).....	10	4.80	7.18	71.8	99.52
3	Solid white cake (Marquart)	10	4.80	7.18	71.8	99.52
4	Spongy white cake (De Haen)	10	4.65	6.94	69.4	96.19
5	Acicular crystals (ditto)	10	4.70	7.03	70.3	97.44
6	Compact cake (Saame)	10	4.80	7.18	71.8	99.52
7	Moist-like crystals (Fr. make)	10	4.75	7.11	71.1	98.44
8	Tabular crystals (Uncertain)	10	4.40	6.48	64.8	89.91
9	Small crystals (De Haen) ...	10	4.50	6.73	67.3	93.29
10	Cake with yel. tinge (Uncert.)	10	4.20	6.28	62.8	87.07
	Pure hydrate	10	4.82	7.72	77.2	100.00

The first thing which is apparent, in looking over these results, is the great difference between them and some of the results given in Mr. Mason's paper. In no instance does the percentage yield of chloroform by weight amount to less than 60 per cent. of the hydrate of chloral operated upon. At the same time, there are differences of quality in the samples; and this is rendered more evident by calculating out from the chloroform produced in each instance, as is done in Column 7, the percentage of amount of pure hydrate of chloral corresponding to it in the several samples analysed.

While, therefore, it would seem either that the samples examined by Mr. Mason were very different from those above referred to, or that some error has crept into his experiments, it may be inferred from the results here given that there is a variation of quality in the hydrate of chloral of commerce, amounting in some instances to as much as 10 per cent.

As regards the alleged substitution of the alcoholate of chloral for the preparation originally recommended by Liebreich, it does not appear from the results above stated that it is practised to any great extent, if at all; but we purpose inquiring into this point more fully.

In conclusion, we think it proper in this place to urge upon medical men the necessity of having some definite and trustworthy criterion by which they may judge as to the uniformity in the quality of the hydrate of chloral; and we would equally urge upon the manufacturers of this article, as well as the dealers in it, that, both in their own interest and in that of the public, they should adopt some means of furnishing evidence of uniformity of quality of this material, and of its being of a definite standard of purity and strength.

SMALL-POX IN THE LONDON HOSPITALS.

THE following reports indicate the extent to which the general hospitals of London have suffered from the epidemic of small-pox, and the means taken to arrest evil consequences.

At St. Bartholomew's Hospital, Mr. Cross informs us there have been during the present epidemic of small-pox twelve cases. The last case occurred on January 28th. As soon as the patients were known to have small-pox, they were removed from the ward either to a Small-Pox Hospital, or, where that was impossible, to a building in the Hospital isolated from all other patients. Permission for friends of patients generally to visit at the Hospital has been temporarily suspended. In cases where it was thought advisable, patients and others who had come into contact with the infected persons were vaccinated; and such other precautions have been taken in each instance as the medical officers considered necessary.

At Charing Cross Hospital there have been no cases of the disease. No visitors are allowed unless to see friends dangerously ill. All out-patients before entering their department are separately examined, either by Mr. Noakes, the House-Physician, or Mr. Lea, the Resident Surgical Officer. Several patients suffering from small-pox have applied at the Hospital for relief and have been sent away.

At King's College Hospital, we are told by Mr. Lyell, the House-Surgeon, that three small-pox cases have occurred. The first two were isolated cases of nurses. No others were admitted till the 31st January, when a boy came in, in whom the variolous rash developed itself, and who was to be discharged on Thursday. Several cases have presented themselves in the out-patient department. The precautions which have been taken to prevent the spread of the disease are—the vaccination of the sisters and nurses, and the discontinuance for a period, except in urgent cases, of the admission of visitors.

At St. George's Hospital, twenty cases, as we stated in a previous number, have occurred, three of which died. They have been treated in isolated wards. No fresh cases have occurred in the hospital for three weeks, and the others are all convalescent. The whole household was revaccinated by Dr. Thomas Jones, the resident medical officer; and visitors, unless in exceptional cases, have been excluded.

At Guy's Hospital, we are informed by Dr. Steele that four cases occurred amongst the in-patients—the last, twelve days ago. The visiting days have been cancelled since Sunday; and precautions have been taken, by vaccination, to prevent the spread of the disease amongst the nurses.

At the London Hospital, we lately stated that twenty cases had altogether occurred, which were treated in isolated wards, but were all convalescent. No other case of the disease had occurred or been admitted until January 21st, when a man was brought moribund to the hospital, suffering from a very malignant form of the disease. Dr. Stephen Mackenzie, the resident medical officer, was, under the circumstances, obliged to admit him; but the man died ten minutes afterwards. Visitors to the wards are still excluded, except to patients dangerously ill.

At St. Mary's Hospital, two cases were admitted as in-patients, which soon developed themselves into small-pox. They were at once sent to the Small-pox Hospital. Twelve out-patients presented themselves with the eruption upon them. Certificates were immediately given them by Mr. Knott, the Resident Registrar, and they were sent off to their respective parish infirmaries. Precautions were taken to prevent the spread of the disease in the Hospital. The beds of the two affected in-patients were fumigated, and all the servants of the Institution vac-

inated. The patients in the wards refused to be vaccinated. The last case of small-pox was in an out-patient who came to the Hospital three days ago.

At the Middlesex Hospital, one case, to which we alluded last week, broke out, the patient having caught the infection in an omnibus while on her way to the hospital. The patient was at once sent by Dr. Robert King to the Small-pox Hospital; and the patients and nurses of the ward in which the patient was, and also of the adjoining one, were vaccinated. Further steps are being taken, by vaccination and by excluding visitors except in urgent cases, to prevent its recurrence. A considerable number of cases have presented themselves in the out-patient department, and been sent to their respective parish infirmaries. The number of admissions has been as much as possible restricted.

St. Thomas's Hospital has been unusually exempt, only one doubtful case having gained admission to the building. The patient was, however, placed in a separate room, and he is now doing well. Mr. Whitfield says that none of the out-patients have exhibited the disease for the last four or five weeks, nor have any of the applicants for admission presented traces of small-pox.

At University College Hospital, Mr. J. Davies Thomas informs us that only one case, which turned out to be variola, has been admitted, and that six weeks ago. The patient was transferred immediately to the parochial authorities. The sisters and nurses are being revaccinated. The resident medical staff have already been so.

At the Westminster Hospital, Mr. Ferdinand Wallis, the House-Physician, informs us that there have been altogether eight patients in the Hospital; the last case was taken ill on January 28th. The nurses have for the most part been revaccinated; and all in-patients will be vaccinated in future before admission. Visiting is precluded except under special circumstances.

THE CENSUS OF 1871.

WE have received from Captain Clode a copy of some documents which have been sent out all over the country to the local officers, in order that they may at once make the arrangements necessary for enumerating every living person in England in one day (April 3rd next). It is an arduous undertaking, and can only be accomplished with the assistance and good-will of the public. The first duty of the Superintendents and Registrars is to plot out the country into thirty-three thousand enumeration districts, and to appoint enumerators. This is now being done. The assistance is required of the municipal and all other authorities, in making boundaries on maps, and in such other ways as are indicated in the Registrar-General's letter to the mayors and chairmen of local boards. We venture to urge upon our professional brethren to give all the assistance in their power in the way of comfort and advice to those concerned in carrying out the Census of 1871.

NOTES OF THE WAR.

THE German army has already lost above one hundred and fifty medical officers.

IN consequence of the distance from Germany to which military operations have been removed, ambulances have been established by the Germans at Commercy, Rheims, Metz, Toul, and other places on French soil.

THE removal of the wounded from Metz is all but completed. The medical material belonging to the French ambulances, neutralised by the Geneva Convention, is being removed under the charge of M. Kayser, a Belgian pharmacist.

A FRENCH AMBULANCE-SURGEON KILLED.

THE *Progrès du Nord* contains a letter from Sedan, relating a tale which we would hope not to be true. It is stated that, on November 25th, Dr. de Baudre was sent from Sedan to Mézières to obtain money to pay the medical attendants of the military ambulance. He obtained a safe-conduct, and, wearing a *brassard*, proceeded on his route in a carriage. At Villers he was stopped, but, on showing his credentials, was allowed to proceed—but on foot, and alone. On arriving at Francheville, he was told that, "whether Prussian or general, he could not pass." He therefore returned; and on his way was shot at, but missed, by a sentinel, who did not first challenge him. He showed his *brassard* and waved his handkerchief; and at the same moment was shot in the chest by an officer, at the distance of ten *mètres*. Being carried into a house, he was attended by two Prussian surgeons, and died two days afterwards.

THE INTERNATIONAL SOCIETY AND THE FRENCH AMBULANCES.

M. GAMBETTA has issued a decree placing all volunteer ambulances and other institutions for the relief of the wounded in war under the direction of the International Society, which has, he says, rendered important services to the cause of humanity. National or foreign *ambulances volantes*, when recognised, are to place themselves at the disposal of the general and the *intendant-en-chef* of the army, who, in concert with the Ministry of War, will assign them their positions. Those *ambulances volantes* which are already in existence are to place themselves in communication forthwith with the International Society, which will propose to the War Minister their maintenance or dissolution. No person under the age of forty can be employed in either a flying or a stationary ambulance, unless possessing the diploma of doctor or at least sixteen inscriptions (four years of study.) An exception from this is made with regard to the ambulances in Paris. The badges of the International Society are to be issued only by the superior Council or its delegates; and each person holding the badge is to have also a card, signed and sealed by the delegate in the district and by the military intendant. The only persons entitled to wear the badge are the staff of the Society, of its different delegations, of the ambulances, the officers of committees affiliated to the Society, and the medical staff of the ambulances formed by the committees. All badges delivered by local committees or any administrative authority whatever are declared null and void from January 15th; and those who continue to wear them without authorisation are to be prosecuted; but an exception is made in favour of the badges bearing the signature of the president of the Society, of the general delegate attached to the Ministry of War, or of the district delegates. The Minister of War reserves the right of nominating a general delegate of the Society, and has accordingly appointed M. de Villeneuve de Rougemont to the office.

ASSOCIATION INTELLIGENCE.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE next general meeting of the above Branch will be held at the Midland Institute, Birmingham, on Thursday, February 9th, at 3 P.M.; THOMAS UNDERHILL, Esq., President, in the Chair.

T. H. BARTLEET, *Honorary Secretary*.

NORTH WALES BRANCH.

THE next intermediate general meeting of the above Branch will be held at the Belvoir Hotel, Rhyl, on Tuesday, February 14th. Members of the Council of the Branch are requested to meet at 12.30 P.M. The general meeting will commence at 1 P.M.: T. F. EDWARDS, Esq., Denbigh, President.

Dinner will be provided at the end of the meeting to suit members leaving by early trains.

Gentlemen who intend to be present, to communicate papers or cases, and who purpose dining, will please to send early notice to

D. KENT JONES, *Honorary Secretary*.

Beaumaris, January 25th, 1871.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH:
ORDINARY MEETING.

A MEETING of this Branch was held at the Midland Institute, Birmingham, on January 12th. Present: THOMAS UNDERHILL, Esq., President, in the Chair, and forty-two members and visitors.

New Members.—The following gentlemen were elected members of the Branch: Mr. E. G. Smith, Queen's Hospital; Mr. Hogg, Edgbaston; Mr. Rickards, General Hospital; Mr. H. Brown, Jun., West Bromwich; Dr. J. Thompson, Leamington; Mr. Alfred Walker, Dispensary, Dudley; Mr. G. F. Maberly, Leamington.

Communications.—1. Mr. JOLLY exhibited a case where he had performed Hey's Amputation of the Foot for a Compound Comminuted Fracture of one of the Metatarsal Bones caused by the wheel of an omnibus passing over it. The man made a good recovery. A part of the wound united by the first intention, and nothing could be more perfect than the formation of the stump, with a narrow cicatrix situated well in the dorsum of the foot, the face of the stump being covered by skin and muscle, which had been accustomed to bear the weight of the body. Three months after the accident, the patient was able to stand or walk on the stump with firmness and ease without the aid of a stick, and with a halt scarcely to be detected.

Mr. FURNEAUX JORDAN showed a firm globular Fatty Tumour, of the size of a Seville orange, successfully removed from the scrotum. It was attached to the omentum by a slender peduncle four inches in length. Above the tumour, in a second sac, lay a reducible hernia. A truss could not be worn before the operation.

Mr. LAWSON TAIT showed an interesting specimen of Diseased Bone—a fibula—of which, however, there was no history. It was included in a job lot of diseased bones which he had bought of a dealer in practical pathology. It was a remarkably good specimen of the disease which had been variously described as eccentric atrophy of bone by Curling, osteoporosis by Rokitsky, and fatty degeneration of bone by Paget. He had no doubt that the latter term was the most applicable to the disease. In the present instance, it had occurred to an extreme degree in the bone of a youth, in some parts the thinned shell only being left. The greater part of the cancellous tissue had been removed by the disease, and the lamination of the dense bone could be seen in process of destruction. Layers of what was now adipocere, but what in life had been fatty *débris*, were seen taking an alternate order with decaying laminae of bone, and pushing them inwards.

Mr. OLIVER PEMBERTON brought before the meeting a case in which he had tied the common femoral artery for the cure of an Aneurism at the apex of Scarpa's space, in a patient aged 60. The patient was generally diseased, and there were evidences of plugs existing in the right and left carotid, and in the left axillary arteries. The artery was tied by a common thread, and the wound was left open altogether. The ligature came away at the end of forty days; there was no hæmorrhage and no gangrene. The patient died of inanition ten days subsequently to the ligature being thrown off. At the *post mortem* examination, the profunda artery was found arising at Poupart's ligament, the ligature being just above it. Notwithstanding this, the artery was plugged up above the ligature, and between this and the sac, and below this for three inches. The aneurismal sac would have suppurated.

Mr. LAWSON TAIT, in resuming the adjourned debate on the question of Hospital Mortality, said that he appeared more as a defender of the position taken by the late Sir James Simpson, than on any ground of his own; for as yet his work in the matter was but recent. Mr. Holmes had said that he did not consider the question to be arithmetical, or likely to be aided by the consideration of figures. If it were not arithmetical, he was at a loss to know what it was; for, to come to a decision of the methods necessary to reform the evils which were admitted on all hands to exist in connection with large hospitals, it was necessary, first of all, to get at the facts of the case; and this could only be done by figures. The comparison of those figures in various ways would undoubtedly lead to the root of the evil. It seemed to him that Sir James had made two mistakes in his treatment of the questions of hospital mortality. The first was the use of the word "hospitalism". It seemed rather too bad that surgeons, who owed everything, their very professional existence, to hospitals, should coin such a word, and use it for a slur on the institutions. For the future, he would speak of "hospital mortality", not "hospitalism." The second mistake was the publication of the returns of the private practitioners without the names of the contributors; an omission which had given ground for a good deal of cavilling. The remedy was, however, easy. Mr. Tait had gone many times most critically over these returns; and the slight inaccuracies detected by him would not in the least affect the general results. But, putting the private practitioners aside, the question resolved itself into one between large hospitals and small. Further than by comparing mere amputations, the aggregate mortality of hospitals, as shown by a table which Mr. Tait had roughly compiled, but which he was carefully working out for every hospital in England, Scotland, and Ireland, brought the answer still further home against large accumulations of the sick in one building. Many other points were ready for consideration, but he would delay them for want of time, and till he saw the nature of Mr. Holmes's position in the papers being published by that surgeon.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE third ordinary meeting of this Branch was held on January 19th. There were present twenty-eight members and one visitor.

New Members.—The following were elected: S. B. C. Barrett, Esq., Pewsey; R. G. Fendick, Esq., Bristol; C. K. Rudge, Esq., Bristol.

Communications.—1. Dr. TIBBITS read a case of Septicæmia in which a temperature of 110 degrees was recorded.

2. Dr. BRITTAN read a paper on the Septicæmia following Scarlet Fever. The President, Dr. Tibbits, Mr. Smith, Mr. Collins, and Mr. Board took part in the discussion that followed.

3. Mr. SMITH narrated a case of Albuminuria combined with Diabetes.

4. Mr. BOARD narrated a case of Poisoning by Carbonic Acid or Carbonic Oxide in a patient recovering from Typhoid Fever. The room was without a fireplace, and in the very cold weather some lamps were recommended to warm the air during the night. The patient's attendants, thinking they could improve on this, used a stove, in which patent charcoal was burnt.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

THE CARDINAL POINTS OF POOR-LAW REFORM.

THE following official circular has been prepared for issue to the local officers of the Poor-law Medical Officers' Association of England.

I beg briefly to lay before you the following cardinal points of the programme of the Poor-law Medical Officers' Association of England, which the Council propose to carry out, and to request you to furnish any observation of facts relating thereto.

1. To obtain life-appointments for all Poor-law medical officers, and entire instead of partial payment out of the Consolidated Fund, thus securing at once their position as officers of the State and enabling them to act with greater freedom and efficiency.

2. To obtain adequate remuneration for medical officers, on an uniform basis, as far as circumstances will permit, and thus make the Poor-law Medical Service a branch of the Civil Service, with a certain superannuation when ill-health, or old age, or length of service, may entitle them thereto. This superannuation to be a charge on the Consolidated Fund, so as to render it free from the caprice of local influences.

3. To obtain increasing pay for length of service, and promotion in the service to the higher inspectorial appointments, as now obtains in the sister services of the army and navy.

4. The consolidation of the various offices of register, vaccinator, medical officer, and health-officer, with proper remuneration.

5. All drugs and surgical instruments to be found at the cost of the guardians, and dispensaries and dispensers whenever practicable.

6. To obtain for the medical officers the responsible control of all midwifery cases.

7. To provide a basis for consultation and united action in any case of difficulty that may arise in the discharge of their duties.

8. To obtain the same payment for operations in the workhouses as in districts, and an extension of the list of operations for which extra fees are paid.

9. Generally to raise the *status* of the Poor-law medical officers, to increase their influence and usefulness, and consequently their remuneration, and to provide a channel through which all the defects of the Poor-law Medical Service may be brought to light and discussed with a view to their removal or amelioration.

Please favour me by communications illustrative of the difficulties or disadvantages of the service within your experience, together with any comments on the above. All communications shall be considered perfectly confidential, except on the expressed consent of the writer. Names of persons and places will be omitted, and only the facts recorded, in order that the public may know that we are an united but discontented service, and that, when we receive the position and remuneration which we have long earned, we shall the more zealously and efficiently labour for the public weal, and the less will zymotic diseases afflict all classes of society, and the smaller will be the burden on those who support the pauper population.—I am, sir, your obedient servant,

BENSON BAKER, Corresponding Secretary to the Poor-law Medical Officers' Association of England.

42, Grove Road, Regent's Park, London, N.W.

DOUBTFUL ECONOMY.

As an illustration of the fact that an ill-paid medical service entails an enormous and extravagant expenditure in general relief, the Poor-law medical district of Narberth in Pembrokeshire may be contrasted with that of Stranorlar, county Donegal. In the former, the area is 124,903 acres; population, 21,346; total of medical relief, £185, out of which all medicines are found; the gross expenditure, £8,230, or 7s. 9d. per head of population. In the latter, Stranorlar, the area is 121,154 acres; population, 19,978; total of medical relief, £539 12s. 11d., of which £130 is spent on medicines and appliances; total of poor relief, inclusive of medical relief, £2,580 11s. 3d.; total per head of population, 2s. 7d. What figures could more conclusively prove that a well-paid

and efficient Poor-law Medical Service is the truest economy? In the Narberth district, we observe that the medical officer has an average of two hundred cases to attend yearly, scattered over sixteen parishes, and has to travel a distance of twelve miles through a mountainous country, and find all medicines, etc., for the munificent salary of £35 *per annum*.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

It is most cheering to record the fact, that all the Poor-law medical officers of one Union have this year joined the Association, and that an important accession has this week been received from Liverpool. It is of great importance that the Association should enrol every Poor-law medical officer in the kingdom. If every member brought in two others, this would be accomplished. The forthcoming session of Parliament promises to be a most important one in the history of Poor-law medical reform; but much depends on the Poor-law medical officers themselves.

A WORD TO OUR MEMBERS.

THE local honorary secretaries of the Poor-law Medical Officers' Association have rendered great service to it in adding to its numbers. The Association feels proud it has such officers in every county in England and Wales willing to spend time and exert personal influence in making known the objects of the Association and obtaining recruits. Though the Association numbers nearly a thousand members, yet nearly two thousand remain to be pressed into the ranks of an Association that has done much, and will yet do more, to remedy the evils of the Poor-law system, whether the burden fall unjustly on the poor, the ratepayer, or the medical man. The Association urged that dispensaries should be established and that the drugs should be found, because they felt that, under existing arrangements, the Poor-law medical officers were unable to relieve suffering and cure disease as they knew they could and ought to do.

REPORT OF THE POOR-LAW BOARD: IS IT TRUE?

THE Poor-law Board, in their last annual report, have stated that "in England the instances are but comparatively few in which persons receive medical relief only, nearly all those who are attended by the Poor-law medical officer requiring further relief as well", and that "in England the services of the Poor-law medical officers are strictly limited to the pauper class". The following excerpts from letters received by the Council of the Poor-law Medical Officers' Association tend to show that this assertion is not correct.

"From a rough calculation, I should say that half my pauper-patients do not receive further parochial aid. It is only when the heads of families are afflicted that this assertion can with some amount of justice be considered a rule."

"A good third of those whom I attend are not really paupers. Farm and domestic servants in good situations, mechanics, pensioners, etc., are often the recipients of parish medical attendance; and not unfrequently, too, have I known application made to the guardians for monetary assistance, etc., for such like persons. Some little ailment is perhaps the ostensible cause for the application; but, though invariably refused on this head, they are nevertheless always courteously informed that they can at any time procure the doctor's assistance by getting an order from the relieving officer."

"I have had many cases where only medical relief has been given, and have attended pregnant women where an order for confinement has been refused."

"I am called on to visit a large number of patients who only trouble the parish for a doctor."

The great practical objection to the Irish dispensary system is the indiscriminate issue of dispensary tickets. This has been used as an argument in order to deprive the poor of the Poor-law Service of England of the great benefits which have resulted from the efficient working of the Irish system. The question naturally arises, Is not medical poor relief as indiscriminately distributed in England as in Ireland? The evidence of the medical officers goes to prove this to be the case—with this important difference, that every additional patient in England and Wales detracts so much more from the salary of the ill-paid medical officer of England, because he has to find the medicines.

MIDWIFERY AMONG THE POOR IN WORCESTER.

IN 1868, the care of lying-in women in Worcester was intrusted by the guardians to ignorant midwives; and it was not until fatal results fol-

lowed that it was resolved to confide the care of women in the hour of their greatest trial to the Poor-law medical officers. The dread of public exposure having died out, the guardians are once more attempting to revert to their old system, apparently because they can get midwives to attend for a smaller fee. Fortunately, here humanity has the alliance of economy, or we should not hope to secure the most efficient attendance for poor women in childbed. It is in the experience of not a few medical officers that, through the death of the wives of the poor in childbed, homes have been broken up and orphan children have become for years a charge upon the parish. The value of skilled attendance for lying-in women is fully recognised in the Irish dispensary system. It is expressly ordered that the dispensary physician has full and undivided responsibility of all midwifery cases.

MEDICAL ORDERS FOR FOOD IN SICKNESS.

WE call attention to the following correspondence.

Much Wenlock, November 22nd, 1870.

GENTLEMEN,—I am in a little difficulty with the Board of Guardians of the Madeley Union, with whom it is my wish to co-operate cordially, as they have invariably acted with the greatest courtesy towards myself. The case is one on which I wish to have the opinion of the Poor-law Board, as their decision will affect the discretionary power of medical officers generally in the treatment of their patients. I am in the habit of giving, occasionally, orders for meat, two pounds a week, with the addition, sometimes, of a shilling's worth of grocery for the same period, for patients who appear to me so weak as to require this additional support. The relieving officer occasionally refuses to allow these orders, and is supported by the Board of Guardians, who state that he has power to do so. On November 12th, I received an order from the assistant overseer to attend Margaret Child, a woman residing at Presthope, three miles from Wenlock. She was suffering from inflammation of the womb, attended with diarrhoea, which had reduced her exceedingly, and rendered some additional sustenance in the shape of food necessary. The family consists of the husband, wife, and four small children. The husband had been out of work during the week previous, and the family had no meat in the house, and no means of procuring any. I therefore gave an order for two pounds of meat, to make broth with, and to last the following week. The order was refused by the assistant overseer, to the great injury of the woman, who was much exhausted. Will you kindly inform me, not merely in reference to this case, but generally, whether in ordering such extras, in the shape of meat, grocery, etc., as I may deem necessary for the recovery of my patients, I, as a medical officer, am subordinate to the overseers and relieving officer; i.e., whether they are empowered to grant or refuse such orders as they think proper? and, if so, I should feel much obliged if you would quote the regulations of the Poor-law Board relating to such matters. I can only say that, if the view taken by the Board of Guardians of the Madeley Union be correct, and be acted upon generally throughout the country, it will be most unfortunate for the patients, whose recovery will often be retarded or prevented. I visited the woman yesterday; she is dangerously ill, and would have been worse had not the vicar of the parish kindly given her two shillings to purchase meat with.—I remain, Gentlemen, your obedient Servant,

W. P. BROOKES, Medical Officer of the Madeley Union, Shropshire.

To the Secretaries of the Poor-law Board.

Poor-law Board, Whitehall, S.W., December 2nd, 1870.

SIR,—I am directed by the Poor-law Board to acknowledge the receipt of your letter of the 22nd ultimo, in which you request to be furnished with their opinion in regard to the supply of articles of extra diet and nourishment ordered by you as one of the medical officers of the Madeley Union, for the sick poor under your care. In reply, I am directed to state generally, that the Board consider that a certificate given by a medical officer for the allowance of nourishment or stimulants to any of his pauper patients, can only be regarded as a recommendation or expression of his opinion as to what is required for such patient, but that it rests with the relieving officer or the guardians to decide, on their own responsibility, and on their knowledge of the circumstances of the individual in favour of whom the certificate is given, whether the food or stimulants should be supplied out of the funds of the Union. If any other course were to be followed, it would have the effect of constituting the medical officer the absolute judge, not only of the kind of relief to be afforded, but also of the capability of the patient to provide it out of his own resources, without leaving the question for the consideration of the guardians, in whom is vested by law the discretion as to giving or withholding relief of any kind. I am, however, directed to state that in any case in which nourishment, whether in the shape of food or stimulants, may be immediately required, under circumstances of sudden or urgent necessity, and the relieving officer cannot at once be reached, application should be made to the parish officers. The Board think it right to add that, in their opinion, the recommendation of a medical officer in regard to extras is entitled to great weight, and that it is not expedient that it should be disregarded by the guardians, unless it appear either that what is ordered is improper in its nature, or excessive in quantity, or that the person on whose account it is ordered is in a position to provide it at his own cost.

I am, Sir, your obedient Servant, ARTHUR W. PEEL, Secretary.
To W. P. Brookes, Esq., Medical Officer, Much Wenlock, Wellington, Salop.

Much Wenlock, December 15th, 1870.

GENTLEMEN,—I beg to enclose a copy of a letter I addressed to the Secretaries of the Poor-law Board relative to the discretionary power of medical officers in ordering extra nourishment or stimulants for their patients; also a copy of the reply of the Poor-law Board to the same. I regret their decision, for the sake of the suffering poor, because I think that a medical practitioner is better qualified than an overseer or relieving officer to judge absolutely respecting the proper treatment of the sick poor, for whose recovery extra food and stimulants are sometimes necessary, and of the ability of the family or friends to provide the same, when immediately required. As, however, contrary to my preconceived opinion, relieving officers and overseers are regarded as superintendent medical officers, they should, I think, be required, before interfering with the treatment adopted by their sub-officers, to visit the patients and ascertain, by an examination, the nature of the case and the chance of recovery without extra nourishment or stimulants. There are cases of urgent necessity, such as parturition, in which a patient may be lost before the arrival of the overseer or relieving officer to consult with the medical

practitioner in charge; especially, too, where the relieving officer resides six or seven miles from the patient, as in the case of the patient ill at Presthope.

I remain, Gentlemen, your obedient Servant,
W. P. BROOKES, Medical Officer.

To the Guardians of the Madeley Union.

Madeley Union, Ironbridge, December 29th, 1870.

DEAR SIR,—I beg to acknowledge the receipt of your letter of the 15th instant, which was laid before the guardians at their meeting on the 16th instant. The guardians will always be happy to deal liberally with cases of real necessity, especially when extras are recommended by their medical officer; but in the case in point, they consider their relieving officer acted in accordance with the proper discharge of his duties.—Yours truly, H. BOYCOTT, Clerk to the Board of Guardians.
W. P. Brookes, Esq., Much Wenlock.

** The above correspondence seems to us to involve a very grave principle. Mr. Peel's reply is cautiously worded, but seems to us no less vicious in principle than it is cautious. The medical officers of the Poor-law have certainly no wish to assume the functions of relieving officers; but if persons whom we are called upon to attend as being sick and destitute, stand urgently in need of nourishment as their best medicine, we cannot see on what ground any authority can be interposed other than a medical authority to judge of the orders for nourishment, which the medical officer issues on purely medical grounds for his patient. The instance in point seems a very good one to test the propriety of the decision. Here was a poor woman suffering from exhaustion and diarrhoea; the medical officer, finding her unable to procure animal food, ordered her beef-tea. The relieving officer seemed to think she required medicine, and not beef-tea; but surely the medical officer was the judge whether medicine or certain kinds of nourishment constituted the really best remedy for the disorder which he was called to treat. Of course every officer is responsible for the due use of his discretion—responsible directly to the guardians and the Poor-law Board; subject to that just responsibility, we think that the discretion of the medical officer to order nourishment necessary on medical grounds, should be so far absolute as not to be interfered with by subordinate officers, whose means of judgment must be inferior to his own. In noticing this correspondence, therefore, we express the hope that the correspondence will not end here, but that Mr. Brookes will bring this view and the principle we have endeavoured above briefly to enunciate under the notice of Mr. Peel in a further communication. We should then be glad to publish the further correspondence for the information and consideration of the service.

VACANCIES.

DURSLEY UNION, Gloucestershire—Medical Officer for District No. 3 (£70 per annum, and Vaccination and Midwifery Fees): applications, 15th, to G. Wenden. Clerk to Guardians; election, 16th.

FALMOUTH UNION, Cornwall—Medical Officer for the Constantine District: applications to the Vicar of Constantine: vacancy, March.

LOCHBROOM, co. Ross and Cromarty—Parochial Medical Officer: applications, 13th, to Inspector of Poor, Ullapool.

KIRKMICHAEL, Dumfriesshire—Parochial Medical Officer: applications, March 1st, to Inspector of Poor.

NORTH WITCHFORD UNION, Cambridgeshire—Medical Officer for District No. 2 (£40 per annum).

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

WE trust the Poor-law Commissioners will not oppose the desire of the Committee of Castlebar Dispensary in reference to the appointment of Dr. McDermott. The letters forwarded afford conclusive grounds for such a decision. There is of course a long hiatus between discipline and martinetism.

ABUSE OF DISPENSARY TICKETS.

THE Waterford Guardians have recently approved medical relief to a station-master in receipt of twenty-two shillings a week.—The Drogheda Guardians have directed Dr. Kelly that he is to furnish attendance and medicines, at the cost of the ratepayers, to the workpeople of B. Whitworth and Brothers. These gentlemen say that they cannot induce their workpeople to form a club, although they have promised to assist them in doing so. Nothing can afford more clear evidence of the demoralising effect of a too free distribution of State help, than that the working classes should be deliberately encouraged to consider themselves not bound to provide for sickness, and that their employers should acquiesce in a scale of wages and system of living which contemplates pauperism and destitution as part of its daily ingredients. The guardians have chiefly themselves to blame for giving away red tickets under such circumstances at the expense of the ratepayers, who are thus made systematically to supplement the wages of Messrs. Whitworth's factory. So much a week and free medicine and attendance from the parish are thus made the terms of labour at this factory. This is unfair to the ratepayers, and unfair to other competing factories, where parish relief is not treated as a State subsidy in aid of wages.—The singularly onerous way in which the distribution of red tickets often bears upon the medical officers is further illustrated by a case reported in the *Drogheda Constitution* of Saturday last, in which the re-

lieving officer reports officially that, the wife of "a comfortable man" being in labour on Clare Island, he gave a compulsory or "red" ticket, on the understanding that it should be presented to Dr. Dwyer if he were not willing to come "on a reasonable fee". The "comfortable man" paid Dr. Dwyer thirty shillings, and also provided, at his own expense, a good boat and crew. Thus the "red ticket" becomes not a means of relieving destitution, but of enabling "comfortable men" to make good bargains with the doctor.

THE LIMITS OF RELIEF.

SOME guardians appear to have conscientious doubts as to the use and abuse of the "red tickets". At the Waterford Union recently, an interesting conversation occurred. One gentleman, Mr. Leamy, said he gave red tickets to all that asked him, whose circumstances he did not know (which is very good news for persons outside the circle of Mr. Leamy's acquaintance); he could not make inquiries. When he knew the individuals, he discriminated. It was asked whether the man earning ten shillings a week was entitled to a red ticket; to which the answer was affirmative, and equally so as to those earning twenty shillings a week. In fact, looking to the disinclination of some of the guardians to make any inquiry, and the very wide generosity which others possess at the ratepayers' expense, we do not see why any one in Waterford need pay for attendance or medicine.

POOR-LAW INSPECTORS OF DRUGS.

WE see the suggestion made that the qualified inspectors of drugs, whom we have ventured to recommend as substitutes for the proposed and abandoned "Poor-law Apothecary-General", should be selected by a competitive examination by the College of Physicians. The authorities of the College would, we expect, be the first to reject so absurd an idea.

CORRESPONDENCE.

ON INTEMPERANCE IN ITS MEDICAL AND SOCIAL ASPECTS.

SIR,—A comprehensive and practical paper on "Intemperance" in the last JOURNAL, by Dr. Eastwood, will doubtless command the attention, and, I hope, the careful consideration of professional readers. My object in adverting to it is a wish to defend in some measure the neutral position and "indifference" attributed to our profession as a body with respect to the total abstinence movement. My impression is that its members "stand aloof" not from the principle of temperance but from the exclusive and often injudicious dogmas insisted upon by the advocates of total abstinence, who too frequently draw a "sharp and fast line" between their own system and the moderate and often necessary use of drinks containing alcohol.

As a class, it may be surely admitted that in an equal number of gentlemen of any other class, there will not be found a smaller percentage of intemperate men than amongst the members of our profession. In these days the necessity of sobriety is laid upon them by their social position, the requirements of their profession, and the powerful influence of public opinion, independently of their own tastes, habits, and sense of moral and religious obligations. The force of their example gives weight to their protest against intemperance, and to their expressed abhorrence of all its degrading, brutalising effects on its votaries as citizens, fathers, and husbands; and happy would it be were its baleful practices confined to our male population.

I am, etc., T. T. GRIFFITHS, F.R.C.S.

THE PRESENT STATE OF THERAPEUTICS.

SIR,—I have recently perused a most interesting essay, entitled "Method and Medicine", by Dr. Foster of Birmingham.* The essayist gives a very fascinating account of the history of medicine. He clothes in attractive dress a subject which to many minds suggests nothing but musty old tomes bound in leather and covered with dust. I rise from it with a desire to make a few observations, for which I trust you will find space, whether you agree with them or not.

I am at a loss to know why it is that in our medical schools so little is said regarding the history of medicine. It would be difficult to over-

estimate the importance of the subject, and difficult to find a more interesting topic for study, if it be skilfully presented to the mind.

In the course of his essay, Dr. Foster points out the various methods which have been adopted in the study of medicine, and concludes that our science has been and can only be advanced by observation, experiment, and comparison. In considering the present state of medicine, Dr. Foster naturally turns to that horrid eyesore, therapeutics, and confesses that it "sadly lacks that certainty which science gives". He hastens, however, to screen therapeutists by pleading that therapeutics are in an "unavoidable state of imperfection", and that "surely, when the progress of physiology is so slow, the backward state of therapeutics, though it may warrant regret, does not justify reproach." I am of a very different opinion. I look upon the present state of therapeutics as a scandal which demands the most serious consideration. Why is it that, although thousands of intelligent and well educated men are daily making experiments in therapeutics, so little progress is effected? What other department of science (pure courtesy leads us to imply that therapeutics is a department of science) can boast so many workers as therapeutics can? and yet where is there another which advances so slowly? I have simple explanations to offer of this strange anomaly, and see no reason to disguise the naked truth, uninviting though its aspect be.

The actions of drugs are ascertained by experiment. The experiments necessary are generally of a complicated nature. They require on the part of the experimenter a very careful observation of all the facts, and excessive caution as to the conclusions to be drawn from them. One would have expected that, in the teaching of therapeutics, great care would be taken to train the students in the experimental methods necessary for the solution of therapeutical problems. Instead of this, however, the most difficult subject in medicine is, in many of our schools, usually confided to some freshman, who has not yet tried his hand at teaching, and who is entrusted with a "junior subject" like *materia medica* or botany until he acquires that experience which is to enable him to go up higher. Dreary harangues about pharmacy and the shapes of senna-leaves are usually the order of the day; while the methods for ascertaining the actions of drugs upon the nervous, muscular, circulatory, respiratory, and other functions, are very generally ignored. I certainly do know some teachers who do not omit this instruction, but I am really ashamed to say how many there are. I may safely state that this kind of instruction, the importance of which cannot be exaggerated, is generally neglected. Why wonder at the slow advance of therapeutics, when such rottenness lies at the root of the system of teaching the subject? How can we be hard upon the practitioner of medicine, whose education has been thus neglected by those who ought to have known and ought to have acted better. But, though I chiefly blame the teachers, I cannot possibly let the practitioners escape. How lamentably few there are who ever seem to think that they might do something to advance medicine as well as themselves! Surely every man who has been able to obtain a fair knowledge of medicine ought to be able, without a very great expenditure of brain-energy, to contribute in the course of his life a few well ascertained facts to assist in the advance of therapeutics.

Old Hippocrates found out much that was valuable by carefully watching what happened when he administered remedies. He did not trust his memory to accumulate the results; but, like a truly scientific man, he wrote them down, and in this way gathered experience. We live in the nineteenth century, yet how sadly behind Hippocrates in some respects are most medical practitioners. They surely know the principles of inductive research better than poor Hippocrates could possibly do, and yet they do far less with their advanced knowledge than he did with his few glimpses of how to get at truth. Instead of carefully recording the history, symptoms, treatment, and results of their different cases, they go on in the slipshod routine style of recording nothing at the proper time. They observe symptoms; give half a dozen or perhaps a dozen remedies all at once; see what happens; and come to conclusions *not by any means always so vague as they should be* under the circumstances. They "remember" their cases; that is to say, they remember a fraction of the facts regarding them, and persuade themselves that they remember everything. As years run by, the fraction of facts remembered usually becomes smaller and somewhat hazy; but nevertheless, in most instances, the slipshod experimenter complacently consoles himself that he is acquiring "experience". Experience, indeed! In nine cases out of ten, it is a delusion and a snare. What would be thought of the chemist, or physicist, or physiologist, who might make experiments in this way? They would, of course, justly bring themselves into utter ridicule and contempt.

I beseech medical men to remember that every time they give a dose of medicine they perform an experiment; and correct conclusions can only be drawn from such experiments by a careful analysis of the re-

* Reprinted from the essays of the Birmingham Speculative Club. Allen: Birmingham, 1870.

sults of many. All the conditions of the experiments must be recorded *at the time* it is performed, else nothing but confusion results. I know that they will say how impossible it is to find time. Such is not the case. I know many practitioners engaged in enormous practice who can find time to proceed in the scientific manner I indicate. If medical men would but proceed in this simple but thoroughly scientific manner, I feel certain that therapeutics would make rapid strides; but to the teachers we must look for a speedy introduction of a system of teaching therapeutics which will make every man a truly scientific experimenter with physic. What bright laurels would then be worn by us all!

November 1870.

I am, etc., F.R.S.E.

MEDICAL NEWS.

THE GENEVA CONVENTION: INTERNATIONAL CONFERENCE.

It was settled at the International Conferences of the Societies for Aid to Sick and Wounded in Time of War held at Berlin in 1869, that a similar reunion of delegates of the Societies should be held at Vienna in 1871. It has just been officially notified that this intended meeting will not take place during the present year, it being considered desirable that the experience gained in the present war should be carefully collected and studied before the fresh conferences are held.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At the ordinary quarterly meeting of the College, on Thursday, January 26th, the following gentlemen, having passed the required examinations, were admitted as members.

Garstang, Walter. M.D. St. Andrew's, Blackburn
Stocker, James Reginald, M.B.Lond., Guy's Hospital

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on January 26th.

Bradley, Richard Briddon, Stockport (Manchester School)
Butler, Charles, Sutton Benzer, near Chippenham (St. Bartholomew's)
Cooke, Thomas, New Cross
Harvey, Thomas, Stonehouse, Devon (Westminster)
Kynaston, Albert Edward, Billingham (Guy's)
Newington, Frank Enefer, Tenterden, Kent (Guy's)
Osborn, Samuel, Brixton (St. Thomas's)
Wilkins, George, Montreal (St. Thomas's)
Wood, Robert Arthur Henry, Liverpool

Eight candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their hospital studies for six months.

APOTHECARIES' HALL.—The following gentleman passed his examination in the science and practice of medicine, and received a certificate to practise, on Thursday, January 26th, 1871.

Renton, William, Knaresborough, Yorkshire

The following gentleman also on the same day passed his first professional examination.

Elphinstone, George Kidson, London Hospital

At the Preliminary Examination in Arts, held at the Hall of the Society, on the 27th and 28th of January, 1871, 51 candidates presented themselves; of whom 20 were rejected, and the following 31 passed, and received certificates of proficiency in general education; viz., in the First Class, in the order of merit.

1. Harry Welchman; 2. Bernard Faraday Giles, Herbert Sloman, and James Taylor.

In the Second Class, in alphabetical order.

Wm. Oliver Tyndale Annarsley, A. G. Bateman, George H. Blackmore, Capel W. Bringle, Herbert Collier, Herbert Cotton, Charles Philip Creed, Arthur B. Crowther, John Eustace Donnan, Robert Fabling, Robert Gilbert, F. W. W. Goodsall, Harry C. Grimwood, John J. Gunn, Charles James Hancock, M. L. Bowen Jones, George R. Keeling, C. E. A. MacArthur, Frederick Marr, F. Linder Milne, William Moxon, Harry Callander Oakley, Albert M. Rowland, Arthur Savidge, St. Clair B. Shadwell, Thomas Davis Watson, and Octavius White.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BRIGHTON and HOVE PROVIDENT DISPENSARY—Honorary Physician; Surgeon for the Cliftonville District: applications, 6th, to J. Dennant, Hon. Sec.; election, 10th.

CHARING CROSS HOSPITAL—Another Assistant-Surgeon: applications, to Henry Woolcott, Sec.; election, 15th.

EAST LONDON HOSPITAL FOR CHILDREN, Ratcliff Cross—Hon. Visiting Surgeon: applications, to Ashton Warner, Sec., 6, Lime Street Square; election, 7th.

GLASGOW TOWNS HOSPITAL—Assistant Medical Officer: applications to Dr. Robertson.

HOSPITAL FOR WOMEN, Soho Square—Physician: applications, 18th.

KENT COUNTY OPHTHALMIC HOSPITAL, Maidstone—Consulting Surgeon: March 18th.

NORTHERN INFIRMARY, Inverness—House-Surgeon and Apothecary (£40 per annum, with board, etc.): applications, 14th, to Alexander Dallas, Sec.

NOTTINGHAM DISPENSARY—Hon. Physician; Four Hon. Consulting Surgeons; Assistant Resident Surgeon (£120 per annum); election, 27th. Applications to Martin J. Preston, Sec.

NOTTING HILL and SHEPHERD'S BUSH DISPENSARY, Portland Road—Resident Medical Officer: applications, 9th.

ROYAL ASYLUM OF THE ST. ANNE'S SOCIETY—Hon. Physician: applications, to R. H. Evans, Sec., 52, King William Street, London Bridge; election, 10th.

ROYAL SURREY COUNTY HOSPITAL, Guildford—Medical Officer: 23rd.

ST. MARY'S HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, Quay Street, Manchester—Medical Officer: applications, 17th.

ST. THOMAS'S HOSPITAL—Assistant-Surgeon; election, March 9th. Resident Assistant-Surgeon: election, Feb. 28th. Applications (for both offices), Feb. 14th, to the Treasurer, 13, St. Thomas's Street.

WINDSOR ROYAL INFIRMARY AND DISPENSARY—House-Surgeon (£100 per annum, with residence, coal, and gas): applications, to George Cartland, Sec., 7th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

HOGG, Jabez, Esq., elected Surgeon to the Royal Westminster Ophthalmic Hospital, *vice* *Henry Hancock, Esq., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

DRAPER. On January 17th, at York, the wife of *W. Draper, Esq., Surgeon, of a son.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, Jan. 14th; The New York Medical Record, Jan. 19th; The Boston Medical and Surgical Journal, Jan. 19th; The Madras Mail, Nov. 21st; The Shield, Jan. 28th; The Manchester Courier, Jan. 25th; The Philadelphia Medical Times, Jan. 16th; The Philadelphia Medical Independent, Jan. 14th; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. T. Pridgin Teale, Leeds; Mr. W. Smith, Fallowfield, Manchester; The Secretary of the London Institution; Mr. Hamilton, Birkenhead; Dr. Worrall, Adare, co. Limerick; Dr. Maunsell, Dublin; Mr. Lawson Tait, Birmingham; Mr. Benson Baker, London; Mr. R. Argles, Maidstone; Mr. W. D. Spanton, Hanley; Mr. T. Prince, Balsham; Mr. A. H. Dolman, Derby; Dr. Barclay, Leicester; Dr. Edis, London; The Secretary of the Royal Victoria Dispensary, Northampton; Mr. W. Humphreys, Kidwelly; Dr. Davey, Northwoods, Bristol; Dr. A. Meadows, London; Mr. W. Rigden, London; Dr. Dudgeon, London; Mr. Sydney Jones, London; Mr. J. Croft, London; Mr. T. H. Bartleet, Birmingham; Mrs. Hemming, Kimbolton; Dr. Turner, Stockport; Dr. F. Page, Newcastle-upon-Tyne; Dr. Gilchrist, Dumfries; Mr. J. H. Hicks, Plymouth; Dr. Skinner, Liverpool; Mr. T. M. Evans, Hull; Mr. W. Draper, York; The Assistant Secretary of the Royal Microscopical Society; The Secretary of the Clinical Society; Mr. Edward Bellamy, London; Mr. H. Walmsley, Preston; The Secretary of the Pathological Society; Dr. W. Ogle, Derby; Dr. Procter, York; Dr. Fothergill, Leeds; Dr. W. Murray, Newcastle-upon-Tyne; Dr. Whitmore, London; Dr. Grimshaw, Dublin; Dr. A. P. Stewart, London; Mr. Berkeley Hill, London; Dr. George Brown, Colchester; etc.

LETTERS, ETC. (with enclosures), from:—

Dr. A. Ogston, Aberdeen; Dr. James Russell, Birmingham; Dr. J. H. Tylecote, Sandon; Mr. Wm. Mac Cormac, London; Dr. Hardie and Mr. Braddon, Manchester; Mr. D. Kent Jones, Beaumaris; Dr. Whitmore, London; Dr. T. Jones, London; C. C., Edinburgh; Dr. L. O. Fox, Broughton; Dr. Pritchard, Sittingbourne; Mr. H. Cripps Lawrence, London; W. B., West Bromwich; Mr. A. Campbell, Navenby; Our Liverpool Correspondent; Dr. J. Crichton Browne, Wakefield; Mr. Erichsen, London; Dr. Gull, London; The Secretary of the Royal College of Physicians; Our Dublin Correspondent; M.R.C.S. Eng.; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Our Glasgow Correspondent; Dr. G. H. Philipson, Newcastle-upon-Tyne; Mr. Reginald Harrison, Liverpool; The Secretary of the Royal Medical and Chirurgical Society; Mr. Hulke, London; Dr. Cayley, London; Mr. Hogg, London; Dr. Campbell Black, Glasgow; Dr. Paul, London; Dr. Ritchie, Edinburgh; etc.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.

SATURDAY St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. F. J. Gant, The Lettsomian Lectures on Excisional Surgery of the Joints; The Conditions appropriate for Excision; The Operations; After-Treatment and Results. Lecture III, "The Elbow, Shoulder, and Wrist-Joints."—Entomological Society, Odontological Society of Great Britain. Mr. T. Charters White, M.R.C.S., "Some Points in the Minute Anatomy of the Pulp of the Teeth."

TUESDAY.—Pathological Society of London, 8 P.M. The following specimens will be exhibited:—Mr. Spencer Watson, Ivory Exostosis growing from the Sclerotic Coat of the Eye; Mr. Hulke, Preparations and Drawings from Two Cases of Rodent Ulcer; Mr. Hulke, Polypus of Rectum; Mr. H. Arnott, Blood Tumour of Scrotum of doubtful origin; Dr. Morell Mackenzie, Constrictions of the Trachea, with Syphilitic Deposits in the Liver; Dr. Morell Mackenzie, Growth in the Larynx of a Dog; Dr. Clifford Allbutt, Section of the Spinal Cord from Cases of Tetanus; Dr. Moxon, General Primary Colloid Cancer of the Skeleton; Dr. Moxon, Syphilitic Inflammation of the Lung; Dr. Moxon, Change of Grey to Yellow Tubercle in the Lung; Mr. Campbell De Morgan, Tumour of Lower Jaw; Mr. Campbell De Morgan, Tumour from Axilla; Mr. Wagstaffe, Fibrous Tumour of Heart.

WEDNESDAY.—Royal Microscopical Society (Anniversary), 8 P.M. Officers and Council for the ensuing year will be elected.—Hunterian Society (Anniversary), 8 P.M.—Epidemiological Society, 8 P.M. Adjourned discussion on Dr. Christie's paper on Cholera in East Africa.

THURSDAY.—Royal Society.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Handfield Jones, "On Puncture in Anasarca"; "On Two Cases of Chorea"; Dr. Broadbent, "On Paralysis of the Soft Palate resembling Diphtheritic Paralysis"; Mr. Gant, "On the Process of Occlusion in Arteries after Acupressure"; etc.—Royal Astronomical Society (Anniversary).

EXPECTED OPERATIONS AT THE HOSPITALS.

HOSPITAL FOR WOMEN, Soho Square, Saturday, February 4th, 9.30 A.M. Ovariectomy, by Dr. Meadows; Removal of Polypus Uteri, by Mr. Scott; Operation for Closure of Fæcal Fistula left after Operation, by Mr. Heath.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

QUERIST.—A boomerang is, we believe, an Australian weapon, which, when skilfully thrown, elicits from the savages whom it hits cries of pain and rage.

TREATMENT OF HAY-FEVER BY SULPHUROUS ACID.

SIR,—The proportions of sulphur and charcoal are not correctly stated in my letter in last week's JOURNAL respecting the use of sulphurous acid in hay-fever. A mixture of five parts of sulphur and one part of charcoal is best. The charcoal assists the burning of the sulphur, and prevents it from running about as it is melted by the heat. I am, etc., WALTER FERGUS.

January 30th, 1871.

A CURIOUSLY waspish notice appears in a medical contemporary referring to our brief statement of fact touching Miss Garrett's attitude in relation to the School-Board. We have neither the "pretensions to omniscience" which this irritable gentleman ascribes to us, nor are we conscious of "abysmal ignorance." We stated correctly the facts as they were, and as they are; and we did so on the best possible authority, as we endeavour always to do when we make statements whether of fact or opinion. If our critic did the same he would fall less frequently into error, and be the less exposed to corrections, which seem seriously to damage his temper and affect his peace of mind.

SCOTCH DEGREES.

SIR,—It is with a feeling of disgust, which I can hardly restrain, that I read that the honourable University of St. Andrew's is about to throw open its examination for its M.D. What can be worse for the social duties of our profession, than that a penniless Scotch University should thus seek to make money by pouring out hundreds of graduates into all parts of the land? Were St. Andrew's to restrict admission to elderly men of some standing, and give them a couple of really severe examinations, less fault would be found with this relapse to the evil days of old. In this town there are Scotch graduates to the number of twenty; and of these, three or four are at the very bottom of the social scale; one, a most vulgar, illiterate, and ignorant, though certainly hard-headed creature, was for years an errand boy; after a time, he became a medical student, and, finally, crowned a short period of study by getting a degree from St. Andrew's. I, for one, did hope that the so-called higher degrees would have become in eight or ten years somewhat of a distinction; but now, alas for medical reform and for medical degrees, we shall have an unprincipled body of Scotchmen selling their degrees at fifty pounds a-piece to every vulgar snob, who can go through an examination equal to that for the L.S.A., and who has more money than wits. Will not some of our ardent medical reformers take the matter in hand? I am, etc., S. U. M.

January 21st, 1871.

We have submitted this note for comment to the Secretary of the St. Andrew's Graduates' Association, Dr. Leonard Sedgwick, who writes:—

There is no foundation for the attack of the writer of the note. The facts of the case are simple. At present, the regulations for the degree of M.D. at St. Andrew's are:—1. The candidate must be forty years old. 2. Three medical men of position must certify his respectability. 3. An extended examination must be passed. 4. Only ten graduates may be admitted each year. The first regulation it is proposed to modify by substituting a requirement of five years of actual practice. As the candidates have not kept terms at a University, it is right that they should show something instead; and the possession for five years of a qualification recognised by the Medical Act is considered a better security for professional position than a mere regulation as to age. The fourth regulation it is proposed to repeal. If candidates are restricted in number to ten annually, and only seven or eight are considered by the Examiners qualified for the degree, the restriction is an injustice to the University, for it might have admitted ten. If, on the other hand, candidates are not limited in number, and more than ten are found qualified for the degree, the restriction is an injustice to the eleventh and the others, for they cannot be admitted. The credit of a degree cannot be upheld by a limitation of the number of its recipients; a stringent examination is the only sufficient guarantee. The examination lasts three days; it has been reported on most favourably by a visitation of the Medical Council; and there is reason to believe that it will be still further improved by being partly conducted at the bedside.

RAPID ANÆSTHESIA.

SIR,—In a paragraph in your last issue, I see you doubt the possibility of producing rapid anæsthesia by giving chloroform. Would you allow me to say that I am in the habit of rendering patients unconscious in twenty or thirty seconds by pressing a handkerchief saturated with chloroform forcibly over the mouth and nose until the patient draws one deep inspiration. The struggle is short, effectual, and safe. I have done this at least thirty times, and all who have witnessed it have been struck with the rapidity and facility of what I might term the "rapid pressure method." I am, etc., WM. MURRAY, M.D.

Newcastle-on-Tyne, January 31st, 1871.

ROYAL COLLEGE OF SURGEONS.

THE following questions were submitted to the candidates for the Diploma of Member at the Examinations on the 20th and 21st January:—*Surgery*.—1. Describe the common varieties of Ulcers (non-specific). State the causes by which they are produced, and their appropriate treatment. 2. State what is meant by *reduction en bloc* or *en masse* of a Strangulated Hernia. Describe the position of the sac and its contents where this complication has occurred, the symptoms attending it, and the treatment to be followed. 3. Give the signs of Fracture of the Ribs, the various complications with which it may be attended, and the proper mode of treatment in each case. 4. Describe the appearances, progress, and consequences (if unchecked) of Tinea Tarsi, its pathology, and treatment. 5. Mention the parts that would be divided in the case of a Wound down to the bone extending across the cheek from the lower border of the ala nasi to the lobe of the ear. 6. Carbuncle: its symptoms, pathology, and treatment.—Candidates were required to answer four of the six questions. *Medicine*.—1. What are the various Animal Parasites which may infest the human body? State the modes in which they are supposed to enter the system, and the symptoms which they produce. 2. Mention the different Remedies, external and internal, which are ordinarily used for the expulsion or destruction of each Parasite, and state the doses and modes in which you would employ them. 3. Enumerate the preparations of Iron, Quinine, and Opium contained in the *British Pharmacopœia*; state the purposes for which you would severally employ them, and the doses in which they should be used.

SURGICAL NEEDLES.

SIR,—In an admirable little pamphlet which I have just received from my friend, Dr. Lewis Sayre, of New York, on "Partial Paralysis from Reflex Irritation", he states, that in operations for phimosis he used common sewing needles, for applying ligatures when bringing the cut edges of the skin and mucous membrane together. I have operated on a large number of these cases, and have frequently experienced much difficulty in the application of sutures with the ordinary surgical needles. These being flattened, have cutting sides, which are oftentimes slightly serrated, causing impediment to their free passage through the skin, and producing a ragged instead of a clean cut. Frequently the surgeon in his efforts to make them penetrate, cuts his own fingers with their sharp edges. If needles were made round, like hare-lip pins, with a groove on each side of the head, in a line with the eye, I think they would be an improvement on those at present in use.

I am, etc.,

GEORGE CHARLES COLES.

20, Great Coram Street, Russell Square, W.C., December 20th, 1870.

BOOKS, ETC., RECEIVED.

East and West. Edited by the Countess Spencer. London: 1871.
The Relations of the Medical Profession to Modern Education. By E. S. Dunster, M.D.
Naval Medical Service. By F. J. Brown, M.D. London: 1870.

CLINICAL LECTURE

ON

CASE OF INFLAMMATORY EFFUSION INTO THE
PLEURA AND PERITONEUM: PARACENTESIS
THORACIS: RECOVERY: WITH
CLINICAL REMARKS.By C. HANDFIELD JONES, M.B. Cantab., F.R.S.,
Physician to St. Mary's Hospital.

C. S., aged 19, engineer, was admitted July 20th, 1869. His health had been generally good; he had never been ill before. His mother, he thought, died of phthisis. He had been ill about fourteen days. His abdomen swelled and felt tight, as it was on admission. He had had no diarrhoea, but the bowels had acted with medicine. The urine was scanty, thick, and dark; pulse 96, weak. The heart's sounds were normal. He had fairly good breathing, though a little harsh in both upper fronts; good breathing in all the left lung, but very distinct small crepitations in the right lower back. He had some cough, nearly dry the last week. The abdomen was equally distended, resonant at the right side and middle, but dull in the left side in the iliac region and flank, and up to the posterior part of the left hypochondrium. Altering his position did not affect the dullness much, but pressure on the dull part before percussion produced a degree of tympanitic resonance. The abdomen was quite painless. The mental faculties were quite clear. Respirations 22; temperature 100.2 deg. He was ordered two grains of blue pill and a grain of powdered digitalis in a pill three times a day; a warm bath; half a drachm of bitrate of potash in an electuary three times a day; and broth-diet.—July 24th. The pill was repeated, and he was ordered twenty grains of nitrate of potash in infusion of scopolarium three times a day.—July 28th. The quantity of fluid in the abdomen was evidently increased, as estimated by the extent of the dullness, which was now notable on the right as well as on left on light percussion. The circumference at the umbilicus was 32 inches. The urine was 22 ounces in quantity in twenty-four hours; it deposited lithates. He felt well, except for the discomfort of his abdomen. He was ordered to have ointment of biniodide of mercury rubbed into the abdomen, and to take four grains of iodide of potassium in an ounce of water three times a day.—July 31st. The skin of the abdomen was reddened, partly erythematous, partly papular. The urine was 28 ounces, of full colour. The superficial abdominal veins were full.—Aug. 4th. The ascites seemed rather less, but the left pleura was full of fluid. The heart was displaced to the right of the sternum, pulsating in the fourth and fifth spaces, just inside the vertical line of the right nipple. The dullness extended up to the left clavicle. There were dullness and bronchial breathing and voice in the left back. The right back was resonant; but at the base there was a good deal of small crepitation, and some rhonchus higher up. There was no notable dyspnoea. He lay down easily. Respirations 30; pulse 132, distinct; temperature 97.6 deg. Paracentesis was about to be performed, but was deferred because distant lung-sounds were audible in the left side, and there was no urgency. He was ordered half a grain of opium four times a day, turpentine stupes to the side, and to continue the mixture.—Aug. 5th. The urine amounted to 42 ounces. He had two ounces of brandy. He felt quite comfortable; ate a chop, egg, and pudding, well.—Aug. 6th. The pulse was of much more volume and force; respirations 27; temperature 98.6 deg. The urine was clear, normal-looking, acid, not albuminous, 33 ounces in quantity. All the left back was dull, but at the base breathing was heard loud; the inspiration somewhat vesicular, the expiration tubular, the voice bronchophonic. At the upper part of the back, breathing was loud, chiefly tubular. Below the left clavicle, the breathing was more normal. In the left side, the breathing was very weak and distant. The circumference of the abdomen was 30½ inches.—Aug. 8th. He was ordered to take the pill every three hours.—Aug. 9th. He had a very good night, and felt comfortable. Pulse 128, weak. The pleural effusion was rather increased. Paracentesis was performed, and 86 ounces of fluid removed. This fluid coagulated in twenty-four hours into a red-streaked fibrinous network floating in serum. Under the microscope, the fibrine showed homogeneous granular strands of good consistence, entangling multitudes of red corpuscles and numerous pale granule-cells, circular, of various sizes, some as large as an hepatic cell. Two test-glasses, into which some liquor ammoniæ had been put before they were filled, contained very little coagulum, and almost all the blood-corpuscles were destroyed; some filmy traces of corpuscles remained. The heart

moved over to the left of the sternum while the fluid was flowing; I saw it distinctly to-day nearly in its normal site. In the left front, quasi-crepitation was heard as far down as the nipple, and weak breathing below the clavicle. In the side, friction-sound much resembling crepitation was heard about the middle, and distant breath-sound. In the back, a friction-sound of very much the same character was heard, at the base and in almost all its extent; bronchophony existed at the middle. Fremitus was distinct in the right back, null in the left. Pulse 105, weakish; respirations 24, quiet and regular. The mixture was omitted; and he was ordered to take sixteen minims of tincture of digitalis, and fifteen minims of solution of perchloride of iron, in an ounce of infusion of quassia, three times a day. On Aug. 11th, the opium pill was omitted.—Aug. 14th. Pulse 110. The right back was resonant; breathing was perfect in this region. In the left back there was dullness in the lower half; the breathing was weak, and there was a little grazing friction-sound. In the upper half of the left back there was good resonance and breathing. In the upper half of the left side, resonance was good; and very good breathing was heard down to the level of the sixth costal cartilage. There were good resonance and breathing in all the left front, with some indeterminate quasi-crepitan sounds. The ascites had nearly disappeared. The urine appeared very natural; on the 13th, it was 38 ounces. He continued to improve steadily. On the 25th, there was full deep breathing at the posterior left base, and soon afterwards he left the hospital.

REMARKS.—The cause of the serous effusions in this case is very obscure. There can be no doubt that they came on in a gradual, quiet manner, without pain or any of the stormy symptoms of acute inflammation. It is also certain, I think, that they were not of renal origin. Though my notes do not actually state that the urine on admission was not albuminous, yet, as other particulars are mentioned, I am sure this most important one would not have been omitted from the investigation, and, had albumen been found, the fact would have been recorded. The urine was simply that of pyrexia—say of acute rheumatism. The temperature was moderate on admission, and was normal when the pleural effusion was near its acme. Internal medicines were of little or no avail; but paracentesis thoracis had the best effects; the fluid speedily disappeared from both serous cavities, and complete recovery took place. This favourable influence of the removal of dropsical accumulation has often been noted, and was well illustrated in a case which I attended several times with a medical friend. The patient had copious left-side pleural effusion, causing great distress and dyspnoea. We operated three several times, drawing off some sixty or eighty ounces of fluid each time. Before the operation, the urine was always scanty, once or twice very much so; and the appetite almost null. Immediately after the operation, the urine became copious, and the appetite good; and this improvement continued some time, until the fluid accumulated again. I do not feel that I can satisfactorily explain this effect of paracentesis, so I shall content myself with commending the clinical fact to your notice; warning you, however, that it is very far from being an invariable result.

To one point in connexion with the paracentesis I would shortly advert; I mean the postponement of the operation five days on account of distant lung-sounds being heard in the region where we proposed to perforate the chest-wall. I certainly prefer to find no breath-sound in the spot where I am about to plunge my trochar; but I am satisfied that weak and distant breathing should not deter us, as it did me on that occasion. Lung-sounds can penetrate through a notable thickness of fluid. There is good reason not to delay the performance of paracentesis when it has become evident that other remedies are not likely to avail; for every day that passes increases the liability of the lung to become bound down to the mediastinum by false membranes; and there is also the risk, if the accumulation of fluid be large, of fatal syncope occurring suddenly.

Let me now say a few words respecting the fluid which we drew off from the pleura. It was evidently not mere serum, but was rich in fibrine and corpuscles. The presence of fibrine assimilates it closely to liquor sanguinis, the fluid part of the blood in which the corpuscles float. The coagulation was evidently not dependent on the presence of corpuscles in a fibrinous fluid; for it did not take place as long as the fluid remained in the serous cavity, but occurred soon after its withdrawal from the vicinity of the living tissues. The same change occurs when a piece of inanimate matter is intruded into the living and circulating blood, as when a needle is passed through the coat of a vein, and is bathed in the blood-current for some time: on laying open the vein, the point of the needle is found coated with a deposit of fibrine. Next as to the corpuscles. It is clear that the red corpuscles must have proceeded from the blood: the only question is, whether they were accidentally mingled with the fluid from the slight bleeding necessitated by the operation, or whether they actually escaped from the pleural vessels

ust as the fluid effusion itself did. I entertain no doubt myself that the latter was the case: the red cells were too numerous and too widely diffused to have gained admission accidentally. The non-coloured corpuscles were essentially similar to those met with in pneumonia and other inflammatory processes. Respecting their genesis, different views are held; some looking upon them, with Cohnheim, as white blood-cells which have traversed the walls of the vessels; others agreeing with Virchow and Stricker, that they are the progeny of altered tissue-cells. Both doctrines may be true; but, if I were to adopt one exclusively, it would be the first. For (1) it seems unquestionable that corpuscles do make their way readily enough, under certain circumstances, through the walls of capillaries; so that the old belief in diapedesis, after having been scouted as absurd, is now re-established. (2) There is a striking resemblance between the intra- and extra-vascular cell-formations. The exudation which fills up the air-cells of a hepatised lung may consist to a very large extent of corpuscles almost identical with those which are found in coagula formed in the heart or vessels. I am not, of course, referring to the red corpuscles, but to the white and their developments. Some of these, found in intravascular clots, are altogether similar to the cells formed in inflammatory foci. When the white corpuscles have made their way into the interstices of the tissues, they very probably multiply and give rise to pus or other inflammatory cell-growth. Possibly the tissue-corpuscles may do the same; but this seems to me less certain.

It seems to me very difficult to believe that a large—probably the largest—part of the inflammatory products found on serous or mucous surfaces does not directly proceed from the blood, and is not, correctly speaking, an exudation. Fibrine or fibrinogen certainly exists in the blood, and is also certainly present in the uncoagulated state in anasarous fluid, and in the copious effusions that are generated by pleurisy. The surface of inflamed serous membranes is often covered with more or less thick layers or masses of a substance which bears, in its general appearance, a very close resemblance to pure fibrinous coagulum, and and which, as Rokitansky's and Paget's observations tend to show, varies in structural composition very much as the latter does. Recently, in a case of rheumatic pericarditis, I found the shaggy projections from the inflamed serous membrane to consist mainly of an homogeneous-granular blastema almost devoid of corpuscles. The latter were abundant amid the fibres of the inflamed membrane, and were pretty numerous on its surface; but it seemed to me quite impossible that the solid, bulky, overlying stratum was formed from altered corpuscles. I could only regard it as an off-flow of that blood-element which is known to be in excess in states of inflammation, and which has only to traverse a most thin film of homogeneous membrane to reach the situation where it is found. In the case referred to, there was no pus in the pericardium, and no large amount of serous fluid. The fibrine of a cardiac clot appeared to be of very good quality; the fibrils were well formed and numerous; the granular matter rather scanty; and the corpuscles small and not numerous. I do not assert that the intra- and extra-vascular fibrine were identical; but, having regard to all the circumstances, I cannot doubt that the latter proceeded from the former, or rather from the blood-constituent which produced the former. In catarrh of mucous membranes, the corpuscles by no means constitute all the inflammatory product; there is also a more or less abundant intercellular substance, which is the characteristic product of the morbid process. This tenacious mucous substance is alkaline, like liquor sanguinis, and seems to be essentially this fluid—modified, however, in its transit through a cell-bearing surface. For, where this cell-layer is wanting, as in the pulmonary air-cells, and on denuded eczematous patches, the exudation (which in the latter case, at any rate, is alkaline) loses the mucous quality. These (old) views seem to me concordant with clinical experience of the value of remedies which lessen local hyperæmia or diminish the entire blood-mass, as in recent observations on abstinence from fluids in promoting reabsorption of pleuritic effusion.

A few words now as to the process which causes this exudation. Some miasm or morbid agent in the blood comes to operate on the part which happens to be at the time the least resisting, and deranges the vital actions of its component tissues. The small arteries relax, and increased local blood-flow ensues; the capillaries lose their normal retentive power, and allow at first fluid and then corpuscles to escape; the tissue-elements exert an abnormal attraction on the blood-cells which accumulate in and obstruct the capillaries. This latter is the most important factor of inflammation. In proportion to its development, I conceive, is the severity of the disorder. Further, it seems probable that this derangement of the nutrition-power of the tissues is powerfully influential on the exudation itself. If it be but moderate, the cell-formations are capable of a low form of organisation; if it be excessive, they become effete and dead as regards the organism, and are cast off as pus. In this determination of the fate of the exudation, the

quality of the blood is also materially influential. If its fibrine have a decided tendency to assume the corpuscular form, the conversion of the exudation into pus is greatly promoted.

In the case which I have narrated to you, the morbid process was doubtless inflammatory, but was not of great virulence. The exudation, though it certainly contained corpuscles undistinguishable from pus, was very far from being purulent. If we had had to do with an empyema, the recovery would have been vastly slower and more imperfect. You see, then, that inflammations are not all of the same quality. In the lowest degrees of the morbid process, as Mr. Paget states, we have serum alone effused; in the vast majority, we have liquor sanguinis more or less altered, and containing a varying amount of blood-corpuscles, chiefly the white. If the vital endowments of blood and tissues are not too much depressed by local or general conditions, the effused matters, as the morbid action ceases, return to the blood again—are reabsorbed. But, if the devitalising injury have been greater, or the resisting power more feeble, the exudation becomes more degraded, and is cast off as effete pus; and, if the morbid action be still more intense, the exudation and the tissues perish together in gangrene. Most commonly these several grades, which we have regarded as typically separate, are variously blended together.

ABSTRACTS OF LECTURES

ON THE

GEOGRAPHICAL DISTRIBUTION OF DISEASES IN ENGLAND AND WALES.

Delivered at St. Thomas's Hospital, London.

By ALFRED HAVILAND, Esq.

V.*

The Geographical Distribution of Phthisis in the 623 Registration-Districts.

As it would be impossible to enter minutely into the groups of districts within the hour, I shall now merely draw your attention to certain social, physical, climatic, and geographical facts, which are coincident with either the high or low mortality from phthisis in the 623 registration-districts of England and Wales.

The Distribution of Phthisis, compared with that of other Diseases.—I have already alluded so frequently to the differences in distribution of heart-disease and that of phthisis, that I will only now revert to cancer, and shortly compare some of the more important features displayed in the two maps.

The great cancer-field of the Thames will be seen to be almost co-extensive with its catchment basin, forming an irregular quadrilateral area of high mortality, and therefore coloured blue in the map of cancer. We see how the darkest districts are grouped around the course of the Thames. If we now examine the map of phthisis, we shall find this very four-sided blue area coloured red, indicating a very low mortality from consumption; in fact, it is the converse of what obtained in cancer. In this area will be found a remarkable group around London, all of the lowest mortality; London itself having a mortality of the fourth degree, giving us the idea that the immediate districts around London had poured their phthisical patients into the twenty-six London hospitals, thereby reducing their own death-rate, whilst they raised that of the metropolis. But, if the metropolitan figures were merged into those of its neighbours, the group would even then have a mortality of the lowest degree. This was not the case with cancer, as London had a lower death-rate from this cause than some of the immediate districts—Richmond, for instance.

The Yorkshire cancer-field follows, as we have seen, the courses of the oft-flooded rivers of this county. In the phthisis-map, we find the blue area coloured red, indicating the lowest mortality. In the West of England, if you trace the courses of the Severn and the Wye, you will find that their riparial districts are so coloured as to show a high death-rate from cancer. Compare this oblong area with the courses of these rivers in the phthisis-map, and you will find that the districts show very low death-rate. Again, compare the cancer-field of mid Devon with the same area in phthisis, and you will see as remarkable a contrast as any of those alluded to. I have dwelt upon this point because it is a remarkable and unexpected fact, and worthy of further study. When I was exhibiting my maps before the Royal Society, Mr. Erasmus Wilson was much struck with what I have now pointed out; and he

* Concluded from page 58.—The map illustrating this paper was published with the number of January 7th.

mentioned what he had observed in practice—that, in scrofulous families, one member will die of consumption; another will escape it, and die of cancer; whilst a third shall not succumb to either, but be plagued with lepra. With regard to scrofula, I shall have occasion, in my next lecture, to discuss this matter fully; but I may here mention that there are certain differences in the distribution of these causes of death which require much careful attention. I may, however, state here that the groups of high and low mortality in the scrofula-map have very similar sites to those in that of phthisis. In fact, a general resemblance obtains—accompanied, however, by some marked exceptions.

The Distribution of Phthisis in Relation to the Winds.—We have seen that the elevated districts of Wales, Lancashire, and Yorkshire, exposed to the direct influence of the north-west wind, have a very high mortality; whilst these very districts are the most free from cancer. Again, in the south-east of England, we find that the elevated ridge which surrounds the Thames valley, and is exposed to the easterly winds, has an almost uninterrupted series of high mortality districts.

The south-westerly wind has, coincident with its range over the western counties, and up through the two great red sandstone valleys of England, an extensive and continuous group from the mouth of the Severn to that of the Tees. Deprived of its dynamical element, this wind exercises a most genial influence, from its purity, on some localities, although its tonic powers are not so great as those winds which blow over the German Ocean and the Irish Sea. Whenever the prevailing wind rushes over the country in strong currents, as it does in Wales, persons having delicate lungs seem unable to withstand its effects. The wind may be pure, but it is too strong; and thus it is that, in valleys protected from its force, but which are supplied with abundance of its purity from above, we find a low mortality from phthisis. It is a significant fact that, where the wind rushes up the Severn valley with such force as to diminish the amount of rainfall* in this part of Gloucestershire, its course is marked out by a line of three high mortality districts.

The Distribution in Relation to Geological Site.—I have already alluded to the high mortality of the heights around the London basin; the dryness of the cretaceous soil is not likely to be a cause. I believe here that *aspect* has more to do with this high death-rate than soil. I believe that, were these heights surrounded by a higher ridge of hills and thus sheltered, their mortality would have been the reverse of what it is, inasmuch as the porous character of the chalk-soil admits of ready drainage.

Dr. Buchanan, of the Medical Department of the Privy Council, has elaborately worked out the effects of dampness of soil on phthisical subjects; and his conclusions are, that the drainage, either natural or artificial, and the natural covering in some districts, by gravel, of the clay, produce marked results in the mortality from this cause. I perfectly endorse what both Dr. Buchanan and Dr. Bowditch have emphatically urged in their respective papers: that dampness of soil is a grand exciting cause of phthisis. The sequence will be as follows: a damp clay soil, such as we find in the wealden and gault districts of Sussex and Kent; a damp house, especially the kitchen; damp cupboards; damp sheets; damp clean linen; which ends generally in what is described as *catching a chill*. Now there are some houses that for generation after generation have killed off members of the families occupying them, and yet they are allowed to stand undrained and unheated, ready to kill the present and the next generations.

I will now draw attention to the Y-shaped tract of new red sandstone which extends from the mouth of the Severn up the valley of this river and over the heights which separate it from the watershed of the Weaver and the Dee; and from Gloucester through Warwick, Leicester, Nottingham, and Yorkshire, to end in the valley of the Tees. This extensive tract of red sandstone forms the site of a continuous group of low mortality districts. Let us compare this formation with the irregularly square shaped mass of carboniferous limestone and coal-formations which form the most elevated part of Yorkshire, Lancashire, and Derbyshire. Note its form, and then compare it with the high mortality group which is coextensive with it. This mass is skirted with low red sandstone, Permian, and new red marl valleys and flats; and coincident with this change in the geological character of the soil is a lower mortality.

Dr. Moffat of Hawarden has kindly furnished me with his views on this subject. In a recent paper read before the British Association, he made some very forcible remarks on the difference in the amount of iron grown on carboniferous limestone and that produced from a red sandstone soil; and he computed that a person eating bread made from the latter took into his system *four grains* more iron than he would had it

been made from the former. This is a most important practical hint, which is valuable to the practical student of medical geography.

The remarkable series of low mortality districts along the coast of Yorkshire and Northumberland has already been alluded to. The districts, although apparently close to the full influence of the sea-winds, are yet protected by the precipitous coast; they receive the *pure air* without its dynamical element. It is noteworthy that Pickering, well known for its damp clay and iron soil, has a higher mortality from phthisis than the surrounding districts.

Recapitulation.—1. The districts show that, coincident with sheltered positions, is a low rate of mortality from phthisis: they therefore confirm what was found among the counties and divisions.

2. The distribution of phthisis is almost the converse of that of cancer, and differs remarkably from that of heart-disease.

4. The easterly ridges of the south-east of England are characterised by high mortality; and this high death-rate is coincident with a general aspect favourable to the malign influence of the east wind.

5. Damp clayey soil, whether belonging to the wealden, the oolitic, or the cretaceous formations, is coincident with a high mortality, especially in the south-west of England, as shown by Dr. Buchanan.

6. The warm, fertile, ferruginous red sandstone tracts of country are remarkable for forming the sites of the most extensive series of low mortality groups throughout England.

7. The high elevated ridges of non-ferruginous and infertile carboniferous limestone and coal formation, and the elevated, hard, unfertile, and non-ferruginous Silurian formations, form the sites of the most extensive series of high mortality districts.

8. The elevated parts most exposed to the westerly and north-westerly wind, and to the easterly and south-easterly, are characterised by high mortality.

9. A sheltered position, a warm, fertile, and ferruginous soil, well drained, are coincident, as a rule, throughout England and Wales, with low mortality from phthisis.

A CASE OF GANGRENE OF THE LUNG: WITH REMARKS.

By J. CRICHTON BROWNE, M.D., F.R.S.E.,
Medical Director, West Riding Asylum, Wakefield.

C. H., a Moravian schoolmaster, was admitted into the West Riding Asylum on January 22nd, 1867. No information as to his previous history could be obtained, except that he had resided for some time in New Zealand, that he had been eccentric in his habits for several years, and had been long and inordinately addicted to onanism, to the exhausting effects of which his mental infirmity was supposed to be attributable. When received here, he was in a state of melancholia, characterised by delusions, such as that he was watched and persecuted by devils, because of his devotion to the Christian faith; that his salvation was endangered by their machinations; and that he was bound to guard against their attacks by sleepless vigilance, by having his eyes constantly fixed on heaven, and by swearing in the most choicely blasphemous terms at all who approached him. In conformity with these ideas, he refused to go to bed, and desired to stand perpetually with his hands crossed and his eyes turned upwards, in an attitude of rapt ecstasy, except when he glanced anxiously and furtively around, as if fearing the assaults of his enemies. He was an emaciated, care-worn looking man, with a severe expression of countenance, a pale complexion, a feeble pulse, cold extremities, and a peculiar tendency to profuse sweating from the axillæ. Whenever he was stripped and subjected to examination, the perspiration rolled down his sides in large beads, while none appeared on his forehead or any other part of his body.

During the first six months of his residence in the Asylum, no material change in his condition occurred, except that, as is so often the case when religious delusions are present, morbid sexual ideas took possession of his mind. He fancied that he was the one righteous man left in a modern Gomorrah, and that all his fellow-patients were incarcerated because of horrible and unnatural offences. At the same time, his conversation became obscene, and his deportment in the presence of females lascivious and disgusting.

In January 1868, he suffered from dysentery, after which he enjoyed fair bodily health and comparative mental tranquillity till January 1870, when he was prostrated by a severe attack of pleuropneumonia; from which, however, he made an excellent recovery. After this, he seemed to gain ground in strength and rationality until the 14th of July

* This remarkable fact has been noticed by G. J. Symons, Esq., F.B.M.S., so well known for his many and able works on the British Rainfall.

last, when a sudden and unaccountable change for the worse took place in his mental state. He passed instantly, and without warning, into a paroxysm of mental agitation, manifesting, by his groans and gesticulations, an intense degree of anguish. At first, he declined to converse with any one; but, when pressed, explained that his tribulation was due to the discovery that until that hour he had laboured under a dangerous heresy in believing that there would be marriage and generation in heaven. He now abandoned his occupation, and gave himself up to remorse and prayer, refusing all food so obstinately that he had to be fed with the stomach-pump for ten days. On July 28th, he began to partake of food from the hands of an attendant, although he exhibited improvement in no other respect, being sleepless and greatly distressed, and spending much of the night kneeling by his bed in fervent supplications for mercy. He derived no appreciable benefit from small doses of ergot, which were then administered to him. On August 6th, he was still restless and despondent, and was ordered twenty grains of chloral hydrate three times a day, four ounces of whiskey daily, and a liberal diet. On August 24th, the chloral was omitted, as only transient relief had been procured from it when it was first administered, and as its continued use had been followed by an increase of mental perturbation and persistent insomnia. On September 1st, he was losing flesh rapidly, and had produced inflammation of the bursæ patellæ of both knees by his frequent kneeling in prayer. He was then ordered sixty minims of liquor opii sedativus three times a day. A week later, a large carbuncle appeared on the back of the neck, and a small one on the wrist; while his urine was found to be of specific gravity 1020, and to contain a large proportion of albumen. Under the use of the tincture of the muriate of iron, the carbuncles pursued a favourable course, and healed satisfactorily; while all traces of albumen disappeared from the urine. During October, November, and the early part of December, a decided amelioration took place in the mental symptoms. Although the mind was still occupied by painful delusions, similar to those already described, it was less harassed and unhinged by their presence; it seemed to be accommodating itself to them, and to be permitting of a restoration of bodily vigour, as weight was slightly regained at this period. On December 27th, however, after a few days of aggravated taciturnity and dejection, a new train of symptoms set in. Towards evening, an attack of hæmoptysis occurred, unaccompanied by feverishness, and unexplained by any previous pectoral disorder or unusual exertion. While sitting in bed, he began to cough, and expectorated slowly, in a couple of hours, about an ounce and a half of dark coloured frothy blood. Sulphuric acid and opium checked the hæmorrhage; and he passed a quiet but sleepless night, partaking freely of food and stimulants. The next morning, the hæmoptysis recurred, accompanied, moreover, by a peculiar sickly fœtor, which enabled the medical officer in attendance at once to diagnose gangrene of the lung. The pulse was 105, and very feeble; the respirations 30 per minute; and the temperature in the axilla 98.4. On both sides of the chest, there was tubular breathing in front, with coarse mucous râles behind. The face was pale, pinched, and haggard. The patient's feelings could not be ascertained, as he would not answer any questions. The treatment adopted consisted of the inhalation of carbolic acid with the steam of hot water every two hours; nitro-muriatic acid with cinchona every four hours; and as much whiskey and nourishment as the patient could be induced to swallow. On December 29th, the breath had almost entirely lost that horrible gangrenous odour, which had been almost insupportable by those around during the afternoon of the previous day; while the sputum had also undergone a change, having diminished in quantity, and become of a dirty yellow-brown colour. On examination, it was found to consist of altered blood and broken down lung-tissue. There was dulness on percussion anteriorly on the right side, and posteriorly on the left, with cavernous breathing on auscultation towards the left apex. The pulse was 110, and the temperature 99.2. On December 30th, the expectoration continued as on the 29th, as well as the other symptoms; the respiration in the upper part of the left lung being more distinctly cavernous. He expressed himself as grateful for the carbolic acid inhalation, and desired to have it more frequently. On December 31st, the breath had again become more offensive, although not approaching to its fœtor at the outset of the attack. The pinching of the face and hollowness of the eyes were remarkable. On January 1st, 1871, the sputum again diminished in quantity, being now of a dirty olive-green colour. On January 2nd, the pulse was not perceptible at the wrist; and the breath had an exceedingly putrid odour. Death took place at 9.45 P.M.

At the *post mortem* examination, which took place forty-one hours after death, the body was found to be emaciated. There was no rigor mortis. The pericardium contained half an ounce of clear straw-coloured fluid. The heart weighed eighteen ounces, and presented two irregular white glistening patches on the front of the right ventricle.

The valves were competent; but there was enormous thickening of the walls of the left ventricle, with dilatation of the cavity. The left lung was generally attached to the thoracic walls by old fibrous adhesions of great strength; it weighed forty-eight ounces. In its upper lobe, towards the apex, there was a large gangrenous cavity, capable of holding an orange. This cavity contained fluid resembling coffee-grounds, with masses of *débris* floating in it; and had very rough, irregular, eroded walls. The surrounding lung-tissue was of a dark purple-brown colour and exceedingly soft consistence, emitting an intolerable stench when broken down between the fingers. The lower portion of this lobe was in a state of grey hepatisation, but much more friable than pulmonary tissue ordinarily is when in this condition. The whole of the lower lobe was in a state of red hepatisation. The right lung, which was also strongly adherent to the thorax, weighed twenty-six ounces, and was congested and consolidated towards its base. The liver weighed sixty-three ounces, and was pale and of soft consistence. The other abdominal viscera were normal. The skull was very thin and unsymmetrical, bulging posteriorly to the left. The brain seemed to swell out on the opening of the skull, as if it had been compressed in the cranial cavity; it weighed fifty-three ounces. There was no thickening of the membranes, and only slight wasting of the convolutions adjoining the fissure of Rolando. The cineritious substance was pale, the medullary dusky and mottled; and both were denser and harder than usual. The ventricles were empty; and the velum interpositum and medulla oblongata were intensely congested.

REMARKS.—The case just described, which presents many points of interest, appears to me to be a typical instance of gangrene of the lung as it occurs in lunatic asylum practice. Out of about 600 *post mortem* examinations of the bodies of insane persons which I have witnessed, I have noticed this destructive lesion in three other cases, in all of which the history of the disease had been almost identical with that given above. In all, the previous mental derangement had been melancholia, with occasional acute exacerbations; in all, signs of general deterioration of bodily health had been for some time present; in all, there had been abstinence from food at some stage of the mental disorder; in all, one lung only was affected by gangrene; in all, distinct physical signs and a characteristic breath-fœtor and physiognomy were present; and in all the result was death in less than a week from the commencement of the malady. In none of these cases was there any record of epileptic fits, so that my experience in this respect does not correspond with that of Cruveilhier, who directed attention to the frequency of pulmonary gangrene in this class of cases.

Trousseau has adopted a prevailing opinion in intimating that gangrene of the lungs amongst the insane is sometimes due to inanition, and has, I venture to think, fallen into error in so doing. His statement that that affection is a common cause of death in lunatics who have long refused to take food, is not borne out by our observations in this asylum. Amongst the numerous disastrous consequences of insane abstinence from nourishment, gangrene of the lung has not been recorded, while in each of the cases in which this form of sphacelus occurred an abundant supply of aliment had been secured. C. H. had not missed a meal for five months before his fatal illness; and indeed particular care had been taken to see that his diet was liberal and varied. Yet it is worthy of remark that in C. H., as in each of the other cases, food had been at one time pertinaciously declined, so that the stomach-pump had had to be resorted to. I am disposed to think that in all such cases the refusal of food and the pulmonary gangrene, instead of standing in the relation of cause and effect to each other, have a common centric nervous origin. It is not unreasonable to suggest that a grave cerebral disorder may at one time manifest itself in an abolition of the alimentary appetite, or in positive aversion to all food, and may then travel on into such an interference with the production or distribution of nerve-force as to result in the local disorganisation which we have been considering. Be this as it may, I am quite satisfied that gangrene of the lung, as well as gangrene of other parts, amongst the insane is generally attributable to defective nerve-supply. I have at present under my care a girl, M. H. (Ward 24), aged 23, who has never refused food, but is suffering from acute dementia, or universal impairment of nervous energy—"cerebral chilblains", as I sometimes diagrammatically term it—and who has lost the little toe of the left foot from indubitable *senile* gangrene, and who has now gangrenous spots of a similar character upon three toes of the right foot. In her there can be no suspicion of vascular degeneration, embolism, or any other cause of gangrene, except that defective nerve-supply of which her whole appearance and manner give unmistakable evidence. In connection with this subject, it may be important to note that in the case of C. H. there was intense congestion of the velum interpositum and medulla oblongata. It is also of moment to remember that diabetic patients are especially liable to suffer from gangrene of the lungs.

The case of C. H. confirms the opinion of Laennec, that pulmonary gangrene does not follow ordinary, but a septic, type of pneumonia, as it also verifies his observation that it is often preceded by anthrax. The comparative lowness of the temperature throughout the disease, and the pathological appearances of the lung, sufficiently indicate the character of the inflammatory process which had preceded the gangrene.

C. H. undoubtedly experienced relief from the inhalation of carbolic acid vapour, which also afforded much comfort to those who had to wait upon him, and who were at first terribly inconvenienced by the odour of his breath. It is probably to pulmonary admittaria that we must look for alleviation in this intractable disease.

MUCOUS DISEASE.*

By WALTER WHITEHEAD, F.R.C.S. Ed.,
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THIS disease has been noticed by some of the ancient, and described by a few of the more modern, physicians, but owing to those two prominent, yet opposite errors, for ever being repeated throughout medical literature—the classifying a number of diseases under one genus, and the giving to one disease a multitude of names, this disease has been more frequently concealed under the name and description of other disorders; and, consequently, it has been imperfectly handed down, and received but occasional recognition even in the best of our standard works on medicine. In proof of this, I may state that out of the one hundred and twenty writers on this disease I have been able to collect, I cannot refer to any half dozen who have described it by the same name. The disease has been principally observed in connection with the intestines, the colon being by far the most frequent portion affected; and the remarks I have to make will refer principally to this form of the disease.

Before I enter into a general consideration of the disease, I will endeavour very rapidly to give you, in somewhat chronological order, a brief review of the labours of our predecessors in this field of inquiry. Amongst the earlier writers on this subject, I may mention Celsus, Fermelius, Van Swieten, Morgagni, Berengerius, Gabucinus, Platerus, Sennertus, Tollincoferus, Bonnet, Vesalius, Hoffmann, Trælingius, Brunner, Marcard, Stoll, Theden, and others, who evidently recognised, though with an imperfect light, the nature of this disease, as well as its grave importance. Celsus has described the pathological products of this disease, under the name of pituitous and viscous matters; and we find Morgagni, in his thirty-first letter, which treats of fluxes of the belly, saying:—"For, as the glands of the bladder when irritated secrete a greater quantity of humour, and not of the same nature with that which they secrete in perfect health, so the glands of the intestines likewise secrete a greater quantity of humour, and of a different nature; for which reason, in both cases, a white and mucous matter appears." He states that in this manner may be understood "the shreds of membranes, and even of large membranes that are said to have been discharged" by the bowels. He goes on to say—"That which we now call a mucous, or polypous matter, the ancients were in general accustomed to call pituitous, and viscid." He observes that Jacobus Berengarius has written the following words:—"and I myself have seen that concretions, like pieces of thick leather, have been generated in my intestines from pituita." Fermelius supposed the matter of a firm body which was a foot in length, and pierced through the middle with a duct, to be of the same kind; which body was discharged by the Ambassador of the Emperor Charles the Fifth, who was by that means restored to his former health. Lancisi confirmed, in many different ways, that the pituitous concretion which Justus Lipsius discharged by stool, in the shape of the intestines, and believed to be the very intestines themselves, belonged to this class of disorder. Tollincoferus was also of this opinion. In further discussing these pituitous or mucous humours, he (Morgagni) informs us that Lentilius has exceedingly well determined what intestine it was whence the membranes proceeded, which was excreted in the stools at intervals with or without blood, and in a greater or in a lesser number, "and when dried, they resembled the pellicles of a hog's bladder when shrivelled up with heat."

But Johann Maurice Hoffmann, when he examined very attentively membranes that were excreted by a woman, which every other person had taken for the internal coat of the intestines, found them to be a viscid mucus "coagulated upon the valvulae conniventes, and condensed into the form of a membrane." Nor does the opinion of Trælingius, in the fifth volume of the *Acta Naturæ Curiosorum*, differ from this; for he, on examining a kind of tube or sheath, discharged by the

wife of a peasant, found it to be not really membranous, "although it resembled the figure of the colon, with its valvulae conniventes." Again, the celebrated Verdriesius, having examined very closely one discharged by another patient, found it evidently to be nothing else but "a fistulous pituita which had concreted together, and accommodated itself to the figure of the intestine wherein it was contained." Apinus also mentions a patient who discharged membranes "of a form exactly tubular." Gabucinus, Platerus, and Sennertus taught that certain worms belonging to the bowels were not in reality worms at all. Kämpf, a Dutch physician, was the first to establish this morbid condition, under the title of Infarctus, as a particular disease; and he appears to have written a book with the express object of proving that there were few diseases which were not originally referable to infarctus. His exaggerated conclusions were, however, by no means warranted by his previous propositions.

Referring to more recent authors, Dr. George Man Burrows gives an account of a lady of phlegmatic temperament who voided by stool, some hours after the cessation of an extraordinary attack of pain, a white opaque substance resembling a piece of tape folded like a skein of thread, and weighing nearly an ounce; but it was believed twice that quantity, which had been thrown away, had passed with the stool. This lady had suffered from frequent pregnancies and repeated abortions. This substance was analysed for Dr. Burrows by Mr. A. T. Thomson, who concluded that it consisted of animal mucus combined with a small portion of albumen. The pathological opinions expressed in reviewing the complaint of this lady are well worthy of record, especially when we take into consideration the period of the writing. The writer says—"perhaps a conjecture might be advanced that it originated in a retrograde action of the lymphatics."

Next in order of time, we find a paper read by Dr. Powell at the College of Physicians, on the 17th of May, 1818. From this paper we gather that in all the cases to which he refers the leading symptoms were similar, and led him to suspect the passage of biliary concretions; but instead of finding, as he anticipated, gall-stones passed with the motions, he discovered a large quantity of flakes, mostly torn into irregular shapes, and appearing to have formed parts of an extensive adventitious membrane of no great tenacity or firmness. Dr. Powell considered it perfectly fair to suggest that they might be poured out from the exhalants. He further observed that the most remarkable circumstances in the history of his cases, was the production of an effect usually ascribed to inflammatory action without its previous existence.

We next refer to Dr. Good, who states, in his *Study of Medicine*, under the title of Diarrhoea Tubularis, and also Tubular Looseness:—"I have never hitherto seen this species arranged, and not often described, but it occurs frequently in practice." He describes the dejections as consisting more or less of membranous-like tubes, whitish, viscous, and inodorous. Dr. Good mentions the examples of the disease given by M. Bauer in his letter to M. de Hahn, and also that Spindler in his 45th Observation describes a like case, in which the secretion was worked up into a "materia alba longa compacta." Dr. Good considers that the disease appears to depend upon a peculiar irritability of the villous membrane of the large intestines, which, in consequence, secrete an effusion of coagulating fibrin, fibrin mixed with albumen instead of secreting mucus, occasionally accompanied with some degree of chronic inflammation.

About this time, Gendrin, in his *Philosophical Treatise of Practical Medicine*, tom. iii, p. 23, observes that the mucus which is deposited and agglutinated on the gastro-intestinal mucous membrane sometimes forms concretions of a pseudo-membranous appearance, which are excreted with the stools, and the same that one meets with in the intestines after death. These concretions, he says, never present the least trace of organisation, which authorises us to distinguish them from organised pseudo-membranous concretions which are formed on inflamed surfaces.

In order of time, we now come to, perhaps, the most perfect record of this disease in any language, with one exception, shortly to be mentioned. I allude to the paper contributed by Dr. Todd in the *Cyclopædia of Practical Medicine*, on Follicular Duodenal and Follicular Colonic Dyspepsia. Dr. Todd, as it appears from his titles, looked upon the disease as a form of dyspepsia, and he attributed it to a morbid condition of the mucous follicles.

Dr. James Simpson, in 1846, stated, that from observations he had made, he was convinced that this disease, which he termed chronic pellicular intestinal inflammation, and also eruptive inflammation of the intestinal mucous membrane, was often met with in practice. He considered the passing of shreds or membranes as a characteristic symptom, and that these substances as shown by the microscope consisted of plastic or coagulated lymph.

* Read before the Medical Section at the Annual Meeting of the British Medical Association, in Newcastle-upon-Tyne, August 1870.

Andral also makes mention of these membrani-form productions.

Graves considered the cause of these cases to be irritation of the mucous membrane of the large intestine, and of the rectum in particular.

Mr. Iliff of Newington read a paper in 1844, before the Physical Society of Guy's Hospital, on the membranous-like formations which are not unfrequently passed by patients, mingled with alvine evacuations. He read the particulars of eight or nine cases, one of which was the subject of malignant disease of the os uteri. His paper was illustrated by drawings of the membranes; and I am under a debt of gratitude to Mr. Iliff for the loan of them.

Cruveilhier acknowledges how frequently he had opportunities of observing gelatiniform pseudo-membranes voided by stool after the ingestion of energetic drastic purgatives, and the bark of pomegranate administered by physicians, who took for the remains of worms the mucous products expelled by their patients. He also refers to Villermé, who had witnessed many times the expulsion of these false membranes in individuals affected by the colic of Madrid.

Grantham, in his *Facts in Medicine and Surgery*, describes this disease under the title of Fibrinous Diarrhœa, and states that in every case which he witnessed, he invariably found the disease produced by the administration of mercury, conjoined with the too frequent use of aperient medicine. He also found that such patients experienced an exacerbation of symptoms by the use of mercury, even in small doses.

In the year 1854, M. Broca showed to the Anatomical Society of Paris, membranes which were frequently passed by a woman, and, curiously enough, by her brother-in-law; by the latter for ten, and by the former for fifteen years.

Dr. Potain also showed to the same Society, in 1857, shreds of gelatinous mucous matter expelled during defæcation by a young epileptic girl.

Dr. Lionel Beale, in his *Microscope in Medicine*, states that "mucous casts are sometimes expelled from the large intestine, and occasionally as complete tubes. Flakes, some of which are very firm, are common enough, especially after prolonged constipation. They consist of a firm mucus, in which the epithelial cells from the large bowel, and many corpuscles are embedded." He refers to an interesting example sent to him by Dr. Borrett. The patient was a little girl aged four years.

Trousseau, in the second volume of his *Clinical Medicine*, says that in many cases we confound the pains which have their seat in the transverse colon with stomach pains, and that it is not exaggerating the fact to say that, in a moiety of cases, what we are in the habit of calling gastralgia is nothing but colalgia. The pains experienced by the patient coincide with an obstinate constipation, sometimes followed by diarrhœa, which is accompanied by an excretion of more or less abundant thick mucus. The mucus presents itself under the form of bands of white ribbons, that are compared to macaroni.

In the year 1857, Mr. Jonathan Hutchinson brought before the Pathological Society of London, the case of a lady who voided what he termed tubular exudation casts of the intestine; and also the parallel case of a pale cachectic man, aged 23, who for at least three years, in spite of all treatment, continued to void these casts. Specimens of the matters passed by the lady just referred to, were submitted to Dr. Andrew Clark for examination. As the conclusions arrived at by Dr. A. Clark, after a chemical and microscopical examination of a most exhaustive nature, will frequently be referred to hereafter, I will not anticipate myself by giving you them at present. I shall also have frequent occasion to draw from his equally valuable views on the same subject.

Dr. Guyot brought a case of mucous disease before the Medical Society of Hospitals, at their sitting on the 28th February, 1848. Dr. Siredey, at a sitting on the 11th December of the same year, brought forward a case of a similar character. The paper read by Siredey is full of information and interest.

M. Grisolle, in his *Traité de Pathologie Interne*, in a chapter headed Chronic Enteralgia, states that the disease may continue whole years with remissions more or less long and complete. The patients of whom he speaks experience a kind of habitual uneasiness in the belly. After each crisis, a very abundant excretion of a white or yellow albuminous fibrous matter, resembling in form and colour large vermicelli. During the paroxysms of pain, the pulse remains natural. It is also, he states, more frequent with women than men.

M. Worms drew the attention of the Anatomical Society of Paris to some membraniform flakes voided by a person of advanced age.

Dr. Merland, of Chaillé, in the *Union Médicale*, refers to about thirty cases of this disease which came under his notice.

Axenfeld has noticed and reported cases of expulsion from the anus of gelatiniform white ribbons, several inches long, which he considered to be formed by some concrete mucus.

It will now be my object to elucidate from these several quotations and allusions the borne-out facts recorded, and also to give a general description of the disease.

[To be continued.]

ALCOHOLIC POISONING.*

By G. S. ELLISTON, Esq.,

House-Surgeon to the East Suffolk Hospital.

I PROPOSE briefly to lay before you a few cases of alcoholic poisoning which I have met with in hospital practice during the last four years, the treatment which I have adopted, and the care that should be taken to correctly diagnose these cases from apoplexy and injuries of the brain, which they much resemble. Unfortunately, the only history you generally get is from the policeman who brings in the case; and invariably all that he can tell you is, that he found the patient insensible in the street—he supposes, from drink.

The first case is one which I had when one of the resident surgeons at the Royal Free Hospital. A law-writer, about thirty-five years of age, was picked up by the police in Gray's Inn at midnight, apparently dead, and conveyed to the hospital on a stretcher. I placed him on a couch, and found the body cold and pulseless, the pupils contracted, the conjunctivæ quite insensible to touch, and respiration scarcely perceptible. I at once applied a very powerful galvanic battery always kept in readiness, placing one pole on the nape of the neck, and the other over the course of the phrenic nerve. For two or three minutes he did not appear to feel it; but the respiration slightly improved. I varied the galvanism by placing the pole over the pit of the stomach, and sometimes on the nose; here it seemed to have the greatest effect, causing it to twitch violently; and shortly afterwards the head began feebly to rise from the pillow. This was followed by a gasp; and, by still applying the pole to the nose, I was able to bring the body up into the sitting posture; but, directly it was removed, he fell back a dead weight. I continued the galvanism; and in a few minutes he was so far roused as to say, rather thickly, "Take it away; don't burn my nose." At first, he was inclined to relapse; but a few touches of the battery soon brought him round sufficiently to take an emetic. But very little came from the stomach, and the odour of spirits was slight. He was placed in bed, and three or four days afterwards left the hospital quite well.

The next case shows that the serious symptoms of alcoholic poisoning may be caused by injuries received whilst partially under the influence of drink; and the surgeon may easily be misled by the statements of those accompanying the patient. Two nights after the preceding case, a gentleman was brought in by the police, picked up in the street in an insensible state. He appeared to have been drinking, for his clothes were in a disordered state; and he had evidently been robbed of his watch and other valuables. He was galvanised, and was soon sufficiently sensible to tell his name and address. As the hospital was quite full, it was suggested that the police should take him to his home. On his way there, he became much worse, and was taken to the nearest infirmary, where he died during the night. The *post mortem* examination disclosed a ruptured liver, which the subsequent inquiry proved to have been caused by a cab knocking him down. In this case, there was no clue to the injury, as not one of those who brought him in witnessed the accident.

Since being at the Ipswich Hospital, I have met with two or three well marked cases of alcoholic poisoning. A sailor was brought in one night by the police, who found him lying insensible in the street about a hundred yards from the public-house at which he had been drinking. A medical man had been called to him; but, as he failed to rouse him, he ordered him into the hospital. He was then in a profound state of coma, with all the symptoms which I have before described. I at once applied galvanism; and in about five minutes he began to show signs of animation, quickly followed by pugnacious attempts to knock everybody down near him, more especially the operator. A few more touches made him perfectly sensible; and he took an emetic as quietly as possible, but very little came from the stomach. He shortly afterwards fell into a quiet sleep, and got up next morning feeling as well as ever. Nothing could persuade him that he had been in any danger; and he left the hospital early, treating the whole affair as a joke.

A very similar case happened a few days ago, at the Whit-Monday *fête*. A young man was found in the afternoon on the ground in an insensible state. He was supposed to be suffering from sun-stroke; and, while a medical man who was present was trying to restore him, a bystander said he believed it was the result of some gin he had seen

* Read before the East Anglian Branch.

the patient drink some time before. The medical man at once ordered the police to convey him to the hospital, and sent a slip of paper to the effect that it was supposed a large quantity of gin had been taken. When I examined him, I found the body cold and nearly pulseless, and in such a profound state of insensibility that I firmly believe any surgical operation might have been performed without any feeling. After he had been galvanised a few minutes, the muscles of the face began to twitch, and the hand was feebly raised to the nose to dislodge the pole of the battery. He then murmured out, "Take away the chloroform." Shortly afterwards, he opened his eyes. I then put some questions to him, which he answered correctly, although the language was not very complimentary to myself, and rather unparliamentary. He was soon completely roused and perfectly sensible; and, after a comfortable night's rest, got up feeling quite well, and left the hospital protesting that, as he had no headache, he was convinced he had not taken more than was good for him. In this case I gave no emetic, as I have generally found the contents of the stomach to contain little or no alcohol, it having been all absorbed into the circulation; and he recovered quite as well without.

These cases are very perplexing in private practice; and sometimes, from the general history and appearances, cases of apoplexy may be mistaken for drunkenness, even where the patient is almost above suspicion. Dr. Elliston kindly gave me the following case. He was sent for to a highly respectable tradesman, who had just left a public-house. On entering his home, he staggered and fell on the floor insensible, vomiting a quantity of porter. The symptoms and appearances of the patient in this case showed that he had been drinking; but, as the breathing became more stertorous, and the pupils more dilated, the medical men present determined to wait a time before using the stomach-pump. Fortunately they did, for he shortly afterwards died; and the *post mortem* examination showed about a pint of blood effused into the brain.

In all these cases, I have never used the stomach-pump, but have relied solely upon galvanism, which has always rapidly and completely brought them round. Books tell you that alcoholic poisoning is easily distinguished from apoplectic coma, by the general history and the spirituous smell about the patient; but I have found in nearly all these cases that it is most difficult to detect the odour of spirits, partly from its having become absorbed, and partly from the breathing being so very faint; so that, in any case where alcoholism is at all suspected, I would advise the immediate use of galvanism, in preference to any other mode of treatment.

CLINICAL RECORDS.

From the Practice of PROFESSOR ERICHSEN at University College Hospital.

I.—Necrosis and Chronic Osteitis of Tibia: Osteotomy with a Hey's Saw.

J. B., aged 10, was admitted on October 24th, 1870. The patient had always been delicate. Sixteen months before admission, he was laid up with a pain in his left side and leg. The limb was swollen. In about two months an abscess formed at the upper part of the leg, and was opened. It partially closed, leaving a sinus, which remained to the time of admission. Seven pieces of bone came away at various times during the last year; the last a few weeks before admission. The largest was about one inch and a-half in length.

On admission, the patient was a delicate-looking boy. On the left leg, about three inches below the head of the tibia, was a small sore, in the centre of which was a sinus. A probe passed downwards close to the bone, but no bare bone could be felt. The whole of the upper half of the tibia was increased in size. The surface of the bone was smooth. There was no marked pain or tenderness at any part. The knee-joint was healthy.

He remained in the hospital until December 7th before any operative proceeding was thought necessary. During this time the sore had occasionally increased in size, and then partially healed again. On December 7th, it was a little larger than on admission. The size of the tibia had not markedly changed. The chief change had been in the steady increase of pain. The pain was continuous and of a dull aching character, increased at night or on using the limb. On December 3rd it was so severe as to confine him to bed for the whole day. He had some slight cough, but no marked disease was found on examining the lungs.

On December 7th, Mr. Erichsen made a longitudinal incision about

two and a-half inches long over the enlarged part of the tibia. He then made a cut in the bone with a Hey's saw until the medullary cavity was reached. December 12th.—The patient had suffered no pain in the daytime since the operation, and scarcely any at night. January 5th.—A small piece of bone, about two-thirds of an inch long, came away to-day. He was perfectly free from pain. January 25th.—The wound was nearly healed. He remained perfectly free from pain. There was as yet no diminution in the size of the tibia. He has been sent to Eastbourne for change of air.

In his clinical remarks on the case, Mr. Erichsen stated that he had for many years past been in the habit of treating cases of osteitis, when chronic and accompanied by thickening and expansion of the bone, by making a longitudinal incision into it by means of a Hey's saw. In this way the same relief was given to the inflamed and tense osseous structures that was afforded to soft parts when, in a state of inflammatory tension, an incision was made into them. He had in this way successfully treated chronic osteitis of both ends of the tibia, of the lower end of the humerus, of the radius, and of the ulna.

The operation is extremely simple—simply substituting the Hey's saw for the scalpel; and the principle on which it is done is that of relieving inflammatory tension by incision. The same operation is applicable to cases of chronic encysted abscess in the ends of the long bones, and is much less severe than that of trephining, which is commonly practised in such cases. It is an efficient substitute, indeed, for the trephine in cases of chronic osteitis, hypertrophy, and encysted abscess in the articular ends of the long bones.

Mr. Erichsen further stated that, in his opinion, it was of great consequence to employ early incision in cases of strumous osteitis in the articular ends of long bones, so as to prevent the occurrence of caries and those after-changes that so often lead to the disorganisation of the neighbouring joints. It was with this view, as well as for the relief of pain, that the operation of osteotomy had been done in the present case.

OBSTETRIC MEMORANDA.

LABOUR INDUCED BY UTERINE INJECTION.

IN the number of the BRITISH MEDICAL JOURNAL of February 12th, 1870, I notice an account of a case of artificial induction by Mr. Edward Garraway, in which he calls attention to the fact of the injection of warm water being followed by delivery in seven hours. I can cite a case in which pains followed the injection of warm water into the uterus in less than half-an-hour, and delivery in four. The patient was a very little, stout woman, about twenty-seven years of age, who had never had a living child. The first time she went to the full period, and, after being in labour for about twenty-four hours, was obliged to have craniotomy performed. With the second I attended her, and induced labour at eight months and a half, hoping by this means to obtain a living child. I did so by injecting warm water into the uterus through a large elastic catheter every ten minutes until pains occurred. The water in this case escaped by the side of the catheter. Pains soon followed, and I diagnosed a breech-presentation. Owing to the violence of the uterine contractions the child was dead, having been killed, I imagine, *in utero*, as the cord was flaccid and pulseless as soon as felt. She made a good recovery, and shortly afterwards became pregnant again, and applied to me to attend her. I determined this time to try to save the child by endeavouring to bring on labour more slowly. I intended to do so at the eighth month, but was obliged to do so somewhat earlier, as I was leaving Nelson, and she wished me to do it before leaving. At 10 A.M. I injected about half a pint of warm water through a large elastic catheter passed far up into the uterus, for little escaped when the injection was discontinued; and in about ten minutes I injected again about the same quantity. A good deal escaped beside the catheter; and, after a third injection, pain commenced with great violence; the breech again presented, and, as happened in the former case, the child was dead, having been so, apparently, for some short time. It was born in about four hours from the time of the commencement of the pains.

There was no actual deformity in this patient to account for her having dead children; but she had a *pelvis aequiliter justo minor*, in which every diameter is proportionally diminished. Another peculiarity in her case is her having each time had a breech-presentation of the child: she having told me that the first was, and the last two I know to have been presentations of this kind. She always made good recoveries.

WILLIAM G. KEMP, L.R.C.P. Lond., M.R.C.S. Eng.
Wellington, New Zealand.

CLINICAL MEMORANDA.

THERAPEUTICS OF LEAD-POISONING.

As the important subject of lead-poisoning appears to have engaged attention of late, and instances of sources have been given, I am induced to contribute a few remarks in reference to some cases which have recently come under my own cognisance. In two of my cases, one occurred in a labourer, who had been employed merely to paint some palings for his master about October last, and the other in his wife, who had painted a door or two in the house about the same time. In another patient, the man was a wheelwright, and had merely used red paint in his trade: but the most remarkable case of all was that of a labouring man who had painted a new pair of chamois leather gaiters in November, in order to protect them from the wet weather. This, I find on inquiry, is an occasional custom with farm-labourers in this county. Suffice it to say, that in all these cases the usual symptoms of lead-poisoning were well marked; viz., vomiting, intense pain across the umbilicus, constipation, and the blue line visibly marked both in the upper and lower gums. There was no indication of wrist-drop in either patient. The symptoms of lead-poisoning did not manifest themselves until some weeks after exposure to its contagion; and the cases were certainly some of the most severe that I ever saw. It is considered by some authorities that, in the rapid absorption of lead into the system, the symptoms ought to show themselves earlier. This leads me to infer, both from my own experience and that of others, that there is no definite interval from the periods when lead becomes first absorbed into the system and when the first symptoms should make their appearance. It may be a short or a long interval; moreover, many subjects may be more susceptible to the influence of lead, as is well known in persons who may be exposed to miasmatic or other poisons. I shall be glad to hear the opinion of others who have had more frequent opportunities than myself to investigate this important and interesting subject.

S. B. FARR, L.R.C.P., M.R.C.S. Ed., and L.S.A.

Andover, Hants.

KNEADING IN CONSTIPATION.

IN Dr. Black's Lecture on Constipation (reported in the JOURNAL, Jan. 28), he alludes to "kneading" of the bowels as not being likely to do good. Having had one case in which such treatment—accidentally applied—saved the patient's life, I send a short account of it.

I was called to see a healthy old man, suffering from constipation and excessive pain over the right hypochondrium, so severe as to hinder examination. Enemata were used; the pain lessened, when a tumour was felt where the pain had been: this was soft and semi-dull. Enemata were continued; sickness and vomiting followed, stercoraceous matter being ejected. The patient seemed sinking; another medical man was called in consultation; and, there being a difference of opinion as to the nature of the tumour, it was manipulated several times. Soon after we left the house, the patient passed a large quantity of hard feces, and found that the tumour had disappeared.

GEO. H. SAVAGE, M.D. Lond.

INCONTINENCE AS A SYMPTOM OF RETENTION.

I HAVE lost, within some days, a patient (insane for a long number of years) whose case presented the identical feature mentioned by Mr. Jonathan Hutchinson in his paper on "Incontinence as a Symptom of Retention", in the last number of the JOURNAL. The Rev. —, aged 74, was found to suffer from an irritable bladder and rectum. His frequent visits to the water-closet attracted attention. These, it was found, were prompted by a desire to avoid, as much as possible, the personal inconvenience and disgust of an involuntary escape of the contents of the bladder and rectum. The cause of this, on examination of the organs named, was manifest enough, and consisted in the presence about the anus of a full-sized bunch of hæmorrhoids, partially organised. An enlarged prostate gland had, no doubt, a share in the production of the pain and personal annoyance experienced. The removal of the hæmorrhoids was advised by Mr. Bernard of Clifton, whose opinion was sought. This operation would have been resorted to but for the unexpected change—the abrupt failure of the vital powers, which occurred. On my visiting my patient one morning, and on removing the bed-clothes, the bladder was found (as it had never been before) greatly distended. The Rev. — was now suffering from retention of urine; and this was made evident not only by the state of the bladder itself, but by the "incontinence as a symptom of retention"—to quote the heading of Mr. Hutchinson's very practical remarks. The sheets, etc., were saturated with

the escaped urine. The symptoms continuing, I was compelled to use the catheter twice in the twenty-four hours from this time until his decease. This took place on the tenth day from the occurrence related.

Northwoods, near Bristol.

J. G. DAVEY, M.D.

THE TREATMENT OF SUPPURATING GLANDS OF THE NECK.

THE interesting communication in the last issue of the JOURNAL, by Mr. Lawson Tait, on this subject, in which he recommends frequent tapping, leads me to suggest that more consideration should be shown by practitioners to the simple plan of drainage than is, I believe, the custom.

A case at present under my care is sufficiently illustrative of the method and of the remarks which I wish to make. A girl, eleven years of age, presented herself on January 16th at the Middlesex Hospital, with several enlarged cervical glands, one of which, as large as a chestnut, had already suppurated. I passed at once two silk ligatures through the tumour by means of a needle, and tied the free ends. The mother was directed to keep the openings patent by moving the ligatures a little twice or thrice a day. In a week the tumour had much diminished, a considerable quantity of pus having been discharged. I then introduced, in place of the silk sutures, one of Professor Lister's cat-gut ligatures, soaked in carbolic oil, which answered the purpose admirably. This was removed in three or four days. On the 1st of February the abscess had ceased discharging, and the needle-wounds had healed. There were still, however, some tenderness and redness over the seat of the abscess, with induration of the skin, which are, however, now rapidly disappearing. The part is at present being painted with collodium flexile. The other gland-enlargement has subsided. Unless something untoward happen, the child will be saved the disfigurement of the extensive and permanent scar which would have resulted from the ordinary treatment by incision: I say ordinary, because Professor Lister's results under his method are said to be excellent, little or no noticeable mark being left. I have myself exceedingly little experience of the drainage plan of treatment: it is popular with some, and as unpopular with others who have tried it; but that its success is insured, with very excellent results, the above case proves. It would be interesting to obtain the experience of those who have tried it largely.

JOHN MURRAY, M.D., Assistant-Physician to the
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REVIEWS AND NOTICES.

CHOLERA THEORIES AND OBSERVATIONS.*

UNHAPPILY for India, it is to that country that we candidly look for the satisfactory investigation on a large scale of the origin and means of prevention of cholera. Mr. MACNAMARA has entered zealously into the work. He occupies nearly half this elaborate work by an historical account of cholera, and especially of the epidemics which have occurred since that of 1817-21. In each case, the conditions of soil, drainage, temperature, and other external circumstances are detailed so far as they have been ascertained, and the history of the first appearance and subsequent migration of each epidemic is equally full. Next follows a survey of the entire geographical distribution of cholera, and a discussion of the bearing upon the course which it takes, of rain and moisture, of wind (especially the south-west monsoon), and of temperature. From the facts thus obtained, the author proceeds to draw certain empirical conclusions as to the unequal distribution of the disease, its preference for certain localities—and those not always the most unhealthy—its exclusive origin as an epidemic in the low alluvial plain of Bengal, where alone it never disappears, and its diffusion thence chiefly by means of drinking water.

In his account of the morbid anatomy of cholera, the author assumes that the intestinal villi are, during life, deprived of their epithelium. This destruction of epithelium he attributes to the local action of the cholera-poison. The destruction of epithelium is the immediate cause of the escape of the watery constituents of the blood, and the dehydration of the blood is the main cause of collapse. Now, unfortunately for Mr. Macnamara's theory, there is good reason to believe that the detachment of the epithelium from the intestinal villi is the result of *post mortem* maceration in the alkaline contents of the intestines. This is the opinion of Drs. Parkes and Gairdner; it is also the opinion of Dr. T. R. Lewis, in his recent *Report on the Microscopic Objects found in*

* *A Treatise on Asiatic Cholera.* By C. Macnamara, Surgeon to the Calcutta Ophthalmic Hospital. Pp. 557. London: 1870.

Cholera Evacuations (p. 35). Our author being wrong in his morbid anatomy, which forms the basis of his theory, we need not stop to inquire whether the removal of the epithelium from the intestinal villi would, as he thinks, account for the escape of water from the blood, or whether dehydration of the blood explains the symptoms of collapse. With regard to the state of the lungs, Mr. Macnamara says they are sometimes congested; but he does not say that they are ever found to be heavy after death in the collapse stage. In fact, he appears to have taken no account of the weight of the lungs. The *post mortem* records at the London Hospital during the recent epidemic clearly established the fact that the lungs, although always light in weight when death has occurred during collapse, are sometimes dark coloured, and look as if they were congested (*London Hospital Reports*, vol. iv). The probable explanation of this dark colour of the lungs is, that it is due to engorgement of the *bronchial veins and capillaries*, in common with the whole of the systemic venous system. (See, upon this point, a paper by Dr. George Johnson, *Lancet*, June 20th, 1868.) We may remark, in passing, as an illustration of what we consider Mr. Macnamara's defective physiological theories, that he actually assumes to explain this distension of the venous system by a *post mortem* absorption of water from the tissues into the veins.

One of the author's main objections to Dr. George Johnson's theory of cholera is, that we can obtain no chemical evidence of a morbid poison in the blood of a cholera-patient; yet in another part of his treatise he says (p. 409) we have evidence that the organic infecting matter of cholera is absorbed into the blood; for Dr. Thudichum found the blood at times to contain butyric acid. From this statement it would appear that, in the author's opinion, the cholera-poison and butyric acid are identical, or that they are so closely associated that the presence of one is evidence as to the existence of the other. We have no doubt as to the existence of a blood-poison in cholera, notwithstanding the absence of chemical evidence of this, as of other morbid blood-poisons.

Pettenkofer's theory is next examined; and the author concludes that there is no sufficient evidence that the conditions of the soil and surface-drainage described by the Munich professor are necessary, in addition to contagious emanations from diseased persons, for the production of cholera. He quotes Dr. Macpherson's statistics in proof that the disease is more than twice as prevalent in the jails of the few non-alluvial districts of Bengal (laterite) than in those adjacent, built on the prevailing geological formation. Moreover, he ingeniously argues that the admitted fact that cholera is on the whole most prevalent in districts of recent formation may be explained by the dense population, especially in large cities, which is almost peculiar to districts of tertiary or still later geological character. For Mr. Macnamara believes that cholera depends exclusively upon "a specific organic matter" derived from an already infected patient—usually, but not necessarily, by drinking water contaminated with choleraic dejections. He has obtained very positive evidence that choleraic discharges mixed with drinking-water may communicate the disease. For example, he states that on one occasion nineteen healthy men drank water thus contaminated; and the result was that, in the course of the next three days, five of them were seized with cholera. As this occurred at a place where for a long time no cholera had appeared, it was evidently not the result of accident. Some opponents of the water-theory of cholera-contagion have suggested that in this narrative Mr. Macnamara may have omitted to mention some facts which, if known, would explain the five cases of cholera through some other agency than that of contaminated water. The author, however, states (p. 196) that the "evidence is most positive"; and we have no doubt, from a comparison of the various statements made by him as to the influence of drinking-water contaminated by choleraic discharges, fresh and in various stages of decomposition, that his observations upon this subject have been so numerous, precise, and deliberately planned, that the full particulars are unsuited for publication. He believes and maintains that it is only when the infected water is in the vibrio-stage of decomposition that it is capable of propagating the disease. When the water begins to clear, and ciliated infusoria make their appearance, he believes it to be no longer infectious, and at all events perfectly innocuous after bubbles of gas have begun to rise, and confervoid growths have taken the place of the previous organisms.

It follows from the author's theory that cholera is always spread by human contagion; that its propagation must be from one patient to another, either by water or by dried-up germs or clothes, earth, etc.; that its course can only be arrested by preventing intercourse; and that the choleraic material may be rendered innocuous by coming into contact with an acid, either naturally in the stomach of a healthy man, or artificially by the addition of some reagent—the one which he prefers being persulphate of iron, as recommended by Dr. W. Budd.

Mr. Macnamara candidly confesses that all his experiments in producing cholera in animals by giving them food contaminated with choleraic matter have proved negative; especially those on white mice, which he repeated after Dr. Burdon Sanderson. But, by a careful survey of the history of cholera epidemics given in the earlier part of his work, he endeavours to show that their phenomena are most simply and adequately explained by the direct contamination theory.

We regard this volume as a valuable argument in favour of what is commonly called Dr. Snow's theory of the origin and propagation of cholera. The practical results are so important that the fullest discussion is desirable, and to none can we look for better judgement on the subject than to Indian doctors. The cholera conference of Constantinople, on the whole, endorsed the conclusions to which this hypothesis leads. On the other hand, the classical report of Drs. Baly and Gull to the College of Physicians was opposed to Dr. Snow's theory. A very able treatise on the same side was presented to the Indian Government last year by Dr. Bryden.* He goes very fully into the history of previous epidemics, connecting their origin and course with meteorological and other peculiarities of the season, but not with direct human contagion. He also argues in favour of each epidemic having its own peculiar character, which may be repeated after a longer or shorter interval, so that we have special forms of cholera occurring like comets. The different way in which the same facts may be explained is exemplified by a comparison of his account of the terrible "Hurdwar pilgrim-cholera" in 1867 (pp. 131 and 140) with that of Mr. Macnamara (pp. 245-250). Dr. Bryden illustrates his report by a number of admirable maps, showing the regions to which the disease has spread from its endemic home in Lower Bengal in successive years from 1855 to 1868. The report ends with a careful comparison of Dr. Baly's conclusions with those of the Constantinople conference, and a recapitulation of Dr. Bryden's fundamental propositions.

The "water-infection" theory has, no doubt, in this country been too readily assumed as explaining the spread of cholera; and we do not think that Mr. Macnamara's volume places his conclusions on an established basis of fact. But it is a great advantage to have a consistent theory so clearly stated, and the grounds on which it rests so fully expounded as they are in this interesting and important work.

That cholera may be communicated through the agency of water impregnated with choleraic discharges, we look upon as a demonstrated fact; but we see no reason to believe that this is the only mode in which the disease is propagated. The cholera-poison in a dry state may be scattered by the wind, as the dry and poisonous particles from a scarlet-fever skin may be conveyed, and thus may enter the system either through the lungs or the stomach. As water is continually mingling with the air in the form of vapour, so it may convey with it the cholera-virus in a vaporous form. This is one conceivable mode in which the air may be the vehicle of the poison; but there are many facts which point to the conclusion that during a cholera-epidemic there are peculiar, though as yet unrecognised, conditions of atmosphere which favour the rapid spread of the disease over wide districts. The whole truth with regard to the spread of cholera will not be recognised by those who devote their attention exclusively to either the air or the water as the source or the vehicle of the morbid agency.

A MANUAL OF ZOOLOGY FOR THE USE OF STUDENTS. By HENRY ALLEYNE NICHOLSON, M.D., Lecturer on Natural History in the Extra Academical School of Edinburgh, etc. London: Blackwood. 1870.

For a long time past a good "Manual of Zoology" has been a great desideratum, and lecturers and professors have been reluctantly obliged to reply to their students' questions by saying there was no one thoroughly satisfactory work of the kind in the English language. Those who were aware what Professor Rolleston had in preparation hoped that at last this want would be supplied. The excessive technicality, however, of that highly meritorious work, together with its special reference to the contents of the Oxford Museum, disappointed those hopes, and we were still without a really serviceable manual of general utility. Under these circumstances we are disposed to welcome Dr. Nicholson's addition to zoological literature, and to consider that its appearance is a decided gain, in spite of undeniable defects.

In his preface, Dr. Nicholson observes: "Amongst the sources upon which the author has mainly drawn, it is, perhaps, invidious to mention one more than another. He feels, however, bound to acknowledge, with gratitude, the very great assistance which he has derived from the various works of Professor Huxley." An acknowledgment to the late

* Epidemic Cholera in the Bengal Presidency: a Report on the Cholera of 1866-68, and its Relations to the Cholera of Previous Epidemics. By James D. Bryden, M.D., Surgeon Bengal Army, etc. Calcutta: 1869.

Hunterian Professor is indeed due; but we question whether the one just quoted is adequate to the occasion. Anyone who has attended a course of that professor's lectures at the School of Mines will at once recognise how *very* large a share of the teaching there given is embodied in the present book; and indeed we may question whether such an attendance, with a very little supplementary reading, would not have qualified any attentive and retentive hearer to produce a work like Dr. Nicholson's. Moreover, for all we can see, the book might as well have been produced some years ago, as it by no means embodies the most recent discoveries in zoological science. At the summit of the scale the old-fashioned and thoroughly discredited order Bimana is retained; while not only for all that is said, might the celebrated Hippocampus controversy never have taken place, but there is a positive error in the assertion that man's is the most convoluted of Mammalian brains. At the other end of the scale the interesting discoveries of Professor Haeckel are ignored, and the student may rise from the book without so much as a knowledge of the existence of Protogenes.

The book, however, forms a complete and handy volume of upwards of six hundred pages. It is furnished with a good index and glossary, which the student will find useful.

The work commences with an introduction on general subjects, such as the differences between animals and vegetables, physiology, morphology, homology, reproduction, specific origin, distribution, etc., which introduction, in its substance and treatment, quite resembles Professor Huxley's habitual opening lectures at the School of Mines. After this follows a description of the various zoological groups, arranged in two parts; two hundred and seventy-eight pages being allotted to the Invertebrata, and two hundred and forty-nine pages to the Vertebrata. The classification adopted is again almost that of Professor Huxley, but it does not express his most recent views; thus, *e.g.*, the group Gordiacea is still retained as a distinct class.

On the other hand, the Molluscoida are united in one sub-kingdom with the Mollusca, and the Cirripedia are raised to the rank of a subclass—points in which Dr. Nicholson differs from Professor Huxley. One omission is most remarkable: there is no allusion to that very singular and highly interesting group the Rhizocephala.

In the Vertebrata, the sympathetic system is pointed out as the homologue of the nervous centres of the Annulosa, without any notice of that remarkable view put forth in 1869 by Professor Huxley, according to which the sympathetic nervous filaments of vertebrates are simply those parts of the spinal nerves which go to the internal bifurcation of the visceral laminae of the embryo.

Again (at p. 338), the blood-corpuscles of the Ichthyopsida and Saurropsida are spoken of as "nucleated", without any notice of the recent observations which tend to show that this nucleation is simply a *post mortem* condition.

In treating of Lepidosiren, no mention is made of the remarkable lobate fins which bear such an interesting relation to many extinct forms which make up the bulk of the fringe-finned Fishes of Professor Huxley, the Crossopterygidae, to which, at p. 366, Dr. Nicholson alludes.

A singular misrepresentation occurs at p. 386, where Dr. Nicholson observes, respecting the Axolotl, "There is no doubt, however, that individual specimens may lose their gills, *without thereby suffering any apparent change, except it be one of colour*". It is well known, on the other hand, that the gilled batrachians, which at Paris have lost their external branchiae, have not only changed their colour, but have assumed the special structural characters which distinguish the batrachian genus Amblystoma.

In the class of Birds, the primary divisions proposed by Professor Huxley have been adopted; but, in the subdivision of the Carinatae, the old orders have been retained. This is probably the more serviceable, and, at present, prudent course.

In Mammals we have, in the order Carnivora, the antiquated divisions Plantigrade and Digitigrade. The Insectivora are only credited with the families Talpidae, Erinaceidae, and Soricidae. The Apes are arranged according to the venerable system of Geoffroy St. Hilaire.

In spite, however, of the defects indicated, and in spite of those not here brought forward, Dr. Nicholson's book is valuable, and will, for a time, be useful. We sincerely trust, however, that that time may be short, and we are inclined to think that it will be so. For the rapidly increasing demand for good biological instruction calls so urgently for a thoroughly good manual, that such a work cannot long be delayed. Dr. Nicholson has done well to bring out his book, but he would have done better to have produced it half-a-dozen years ago. We thank him and we welcome it provisionally; but we feel that there is not only still room for, but need of, a satisfactory zootomical manual—one that, while making us acquainted with the last results of biological investigation, shall yet be couched in simple language, and be as clear and concise as deep and thorough. Dr. Nicholson's book is adorned by upwards of

two hundred woodcuts: they will be useful, but it could be wished that these were more original, and that some were less thoroughly familiar to the eyes of ordinary comparative anatomists.

BRITISH MEDICAL JOURNAL.

SATURDAY, FEBRUARY 11TH, 1871.

MEDICAL REFORM.

THE representatives of the University of Dublin, the Queen's University, the King and Queen's College of Physicians, the Royal College of Physicians, and the Royal College of Surgeons, have held a meeting to consider the principles of a Medical Bill prepared by the Royal College of Surgeons of Ireland, which have been printed *in extenso* in a previous number of the JOURNAL. The first principle was, "That the General Medical Council should be remodelled on some plan which, whilst preserving to the medical authorities their due share of representation on the General Medical Council, should provide for a more extended representation thereon of the registered medical practitioners." This was agreed to by the conference, with one dissentient voice. The remaining principles (except Principle 2) were not agreed to by a majority of the conference. The principle thus accepted is an endorsement of the reform claimed by the British Medical Association during the last four years. It is the first time that any of the corporations have been brought to recognise the justice of that claim; and we cannot help attributing considerable importance to this resolution, which will undoubtedly affect the future decisions of Government in dealing with this question. The precise point on which the representatives appointed by the Association to deal with the Government refused to yield, and on which they maintained their opposition to the Bill—a course which all the meetings of the Branches and the general special meetings otherwise approved—was this one of enlarging the direct representation on the Council of the registered medical practitioners. It is no small matter to have thus won the assent of the Irish corporations, which are in Parliament both active and influential, to that principle.

The propositions of the Association Reform Committee have recently been very seriously misrepresented by a journal which had previously for some time persistently suppressed all reference to the work of the Association and of its Branches in this matter. We shall avoid to the utmost entering into any polemic on this subject, for the interests of medical reform are far too important to be dragged down to this low level. The Committee of the Association will naturally and necessarily persevere to the end in their duty, and will spare no efforts to carry out the great principles which alone have thus far received the assent of any considerable number of the profession, or the formal approval of any representative bodies. The British Medical Association is, we believe, strong enough to disregard insult, and magnanimous enough to pass it by unheeded. The work which it has done speaks for itself. The absurd charges brought against the Medical Reform Committee refute themselves so far that, for the present at least, we may leave them without any reply.

There are apparently some new critics of the Committee. There is certainly one, and one who writes to us to-day in the true spirit of purely liberal thought, and with a just courtesy towards those who have been burdened with public duties by the open vote and urgent wish of the Association. It has been the misfortune of the Association to lose temporarily the aid of five of its most respected members of the executive, in consequence of its firm adhesion to the liberal programme and of its refusal to assent to any proposition of reform which did not compel the corporations to share their seats and influence on the Council with the registered practitioners. Dr. Allbutt would like us to go much further, and urges the total exclusion of all the educating and examining bodies from this, which, we may remind him, is a Council of

"education and registration". Dr. Allbutt will, we believe, develop his thesis at greater length in our columns next week. Of course there is a great difference between a general theoretical proposition and a practical parliamentary scheme, and he is the most likely person to recognise the difference. But it will be very interesting to have the theoretical grounds of such a proposed exclusion adequately explained by a son of one of the oldest of the Universities. It is refreshing to find so many indications that public opinion, which at first lagged far behind the Association proposals, is now coming well abreast of them; and it is a wholesome sign to see a light-footed reformer here and there shooting ahead and even turning round with a somewhat saucy derision to flout the steady onward gait of our more deliberately advancing representatives. But, after all, it was not the hare who won the race in the fable; and, looking to the immense progress in principle already achieved by the concessions which the Government were already last session willing to make, and now to this favourable declaration from Dublin, we may congratulate ourselves upon an advance already made at a steady and rapid winning pace.

REVACCINATION AND LYMPH-SUPPLY.

THE Medical Officer of the Privy Council has prepared a memorandum on these subjects of so much importance, that we call attention to his remarks *in extenso*.

He points out that by vaccination in infancy, if thoroughly well-performed and successful, most people are completely insured, for their whole lifetime against an attack of small-pox; and in the proportionately few cases where the protection is less complete, small-pox, if it be caught, will, in consequence of the vaccination, generally be so mild a disease as not to threaten death or disfigurement. If, however, the vaccination in early life have been but imperfectly performed, or have from any other cause been but imperfectly successful, the protection against small-pox is much less satisfactory; neither lasting so long, nor while it lasts being nearly so complete, as the protection which first-rate vaccination gives. Hitherto, unfortunately, there has always been a very large quantity of imperfect vaccination; and in consequence the population always contains very many persons who, though nominally vaccinated and believing themselves to be protected against small-pox, are really liable to infection, and may in some cases contract as severe forms of small-pox as if they had never been vaccinated. Partly because of the existence of this large number of imperfectly vaccinated persons, and partly because also even the best infantine vaccination sometimes in process of time loses more or less of its effect, it is advisable that all persons who have been vaccinated in infancy should, as they approach adult life, undergo revaccination. Generally speaking, the best time of life for revaccination is about the time when growth is completing itself, say from fifteen to eighteen years of age; and persons in that period of life ought not to delay their revaccination till times when there shall be special alarm of small-pox. In proportion, however, as there is prevalence of small-pox in any neighbourhood, or as individuals are from personal circumstances likely to meet chances of infection, the age of fifteen needs not be waited for; especially not by young persons whose marks of previous vaccination are unsatisfactory. In circumstances of special danger, every one past childhood, on whom revaccination has not before been successfully performed, ought without delay to be revaccinated.

Revaccination, once properly and successfully performed, does not appear ever to require repetition. The nurses and other servants of the Small-pox Hospital, when they enter the service, are invariably submitted to vaccination, which in their case generally is revaccination, and is never afterwards repeated; and so perfect is the protection, that, though the nurses live in the closest and most constant attendance on small-pox patients, and though also the other servants are in various ways exposed to special chances of infection, the resident-surgeon of the hospital, during his thirty-four years of office there, has never known small-pox to affect any one of these nurses or servants.

Legal provisions for revaccination are made in the 8th Section of the Vaccination Act, 1867, and in Section IV of the Regulations which the Lords of the Council under authority of the Act issued in their order of February 18th, 1868. Under these provisions, revaccination is now performed by all public vaccinators at their respective vaccinating stations; and, so far as is not inconsistent with the more imperative claims for primary vaccination, any person who ought to be revaccinated may, on applying to the public station of the district in which he resides, obtain revaccination at the public expense.

As to lymph-supply for revaccination, the medical officer of the Privy Council remarks that at any time when exceptional claims for revaccination are arising, it becomes essential clearly to understand how the lymph for such revaccination is to be supplied.

In regard of lymph-supply, revaccination unfortunately differs from primary vaccination, in that it contributes nothing to its own support, but that each case of revaccination, while requiring to draw lymph from a case of primary vaccination, will itself furnish no available lymph in return; for, even when good vesicles result from revaccination, their lymph cannot properly be used for other vaccinations or revaccinations. Thus, no wholesale revaccination is possible which does not have for its basis a large system of primary vaccination; and as, in England, such a system exists in the hands of the public vaccinators, but, with very rare individual exceptions, not in any other hands, so our essential security for means of revaccination (as well as for means of primary vaccination) is in the system of public vaccinating-stations established by law.

At these stations a large majority of all the infantine vaccinations of the country are performed in successive weekly groups; the cases of each vaccinating day returning a week afterwards to furnish lymph for the arm-to-arm vaccination of a new group. Each well-frequented station is thus a continuous source of primary lymph-supply, and is able not only to maintain its own weekly performances of vaccination and revaccination, but also to contribute, more or less, towards the requirements of places where the public stations are too ill-frequented for the maintenance of a continuous supply, and towards the similar requirements of private practitioners. From certain of such stations, carefully selected and superintended, the medical department of the Privy Council office receives regular contributions of lymph, preserved dry on ivory points, or liquid in capillary tubes; and out of the stock thus contributed, the department answers day by day the demands which are made on it for lymph; demands, emanating not only from among the many thousand vaccinators, public and private, of the civil population of England, and the other divisions of the United Kingdom, but also from her Majesty's army and navy in all parts of the world, and from the diplomatic and other foreign services, and from the colonies.

It is essential for the objects which have to be accomplished that this national vaccine establishment should be maintained in a solvent condition, as regards all such demands as its constitution is intended to meet; and it is satisfactory to know, as an effect of large improvements which of late years have been made in the system of supply, that the resources of the establishment are now many times greater and more elastic than they have been during any previous epidemic of small-pox, and are fully adequate to meet all such demands as the establishment professes to provide for. It must be remembered, however, that there are certain claims which the establishment is neither meant, nor would be able, to meet. No central depôt of lymph can pretend to give such separate supplies as will enable each individual practitioner to vaccinate at once large numbers of persons. The principle on which the national vaccine establishment proceeds (and has always proceeded) in its distribution of lymph, whether to public or to private vaccinators, is as follows. It furnishes each applicant with a sufficiency for the performance of a few first vaccinations, and it expects that the recipient, so far as the circumstances of his practice render necessary, will exert himself to vaccinate in series from the beginning which he is thus enabled to make. This principle is acted on in relation to public vaccinators (as especially in country districts) whenever, from local circumstances, the weekly succession of groups of cases has been interrupted; and no other principle

can be worked on a large scale in relation to private vaccinators. If revaccinations be in question, they, to any considerable extent, cannot be immediately dealt with at the expense of the central depôt. And if the vaccinator, on receiving his packet of preserved lymph, do not use it for starting primary vaccinations, from which afterwards his revaccinations can be performed, but, instead of so doing, expend the preserved lymph on some of his claimants for revaccination, he must not rely on being able to satisfy other claimants with new supplies from the central depôt.

Where medical practitioners, not being public vaccinators, and not having otherwise in their practice cases of primary vaccination, are called upon to revaccinate on a considerable scale (as in hospitals, commercial establishments, schools, and even large households), they would generally find it best to make direct application for assistance to the public vaccinator of the district in which they have to act; with whose assistance they may commonly find it in their power to arrange with the parents of children recently vaccinated at the public station, that some of such children shall at the proper time be taken to places where private revaccinations have to be performed, so as to furnish from arm to arm any required quantity of lymph. Generally, too, any private medical practitioner who, from any cause, desires to obtain extraordinary supplies of lymph, will most easily attain his object by applying to the public vaccinator of the district in which he resides. And as public vaccinators, appointed under the Vaccination Act, 1867, are of course free to accept payment for any extra-official work which they may be willing to undertake, private practitioners would probably have no difficulty in obtaining, by voluntary agreement, the assistance of some of these officers as collectors of lymph for private revaccination.

It is important for the public to observe that revaccination on a large scale is not easily conducted unless in a thoroughly systematic manner, and that individual difficulties in finding lymph for revaccination are inseparable from the too general practice of deferring revaccination to periods of panic, instead of having it proceed, as it should, regularly and uniformly, in proportion as successive numbers of population reach the proper age for its performance.*

THE COMING SESSION.

THE Parliamentary Session which has now commenced may possibly deal with many important medical questions. It is almost pledged to undertake that great measure of sanitary legislative reform for which the way has been prepared by the Sanitary Commission, in whose work our Association takes naturally a strong fraternal interest. According to Sir William Adderley, three ministers are at work on the measures which the report will suggest. He speaks of the report as forthcoming; it is not yet, however, forthcome. We believe that the sketch which we gave of its general tenour, some weeks since, will be found correct. The secret, however, has been well kept; for, except the statement which we were enabled to make, nothing has appeared to anticipate the report.

We have reason to believe that the measures on which ministers are

* Section VIII of the Vaccination Act, 1867, is as follows:—"The provisions of the contracts entered into before this Act comes into operation shall not, after the thirty-first day of December next, apply to the cases of persons who, having been previously successfully vaccinated, shall be revaccinated; but if the Lords of Her Majesty's Council shall have issued or shall hereafter issue regulations in respect of the revaccination of persons who may apply to be revaccinated, which such Lords are hereby authorised to do, the guardians shall pay, in respect of every case of successful revaccination performed in conformity with such regulations under such contracts or under new contracts entered into after the date hereof, a sum amounting to two-thirds of the fee payable upon each case of successful primary vaccination."

Section IV of the Regulations issued by the Lords of the Council in their Order of February 18, 1868, is as follows:—"The performance of revaccination by the public vaccinator on persons applying to him for that purpose, shall be limited in each case by the following conditions—(1) that, so far as the public vaccinator can ascertain, the applicant has attained the age of fifteen years, or, if during any immediate danger of small-pox, the age of twelve years, and has not before been successfully revaccinated; and (2) that, in the public vaccinator's judgment, the proposed revaccination is not for any sufficient medical reason undesirable; and (3) that the public vaccinator can afford vaccine lymph for the purpose without in any degree postponing the claims which are made on him for the performance of primary vaccination in his district."

most engaged now are those which we should consider the least interesting, although not the least useful, parts of the question—the simplification and consolidation of existing legislation. The enlargement and remodelling of general sanitary functions and recasting of the relations of medical men to the public health will possibly be postponed till a later period. When the measures determined on take a more defined shape, the State Medicine Committee of the British Medical Association will have important and anxious duties to fulfil on behalf of the profession.

Another measure which we hope to see introduced by the Government is a Bill for the regulation of baby-farming and protection of infant life. We have reason to know that some recent official reports entirely approve of the suggestions made on this subject some years since in the JOURNAL; and that the Bill drafted by the Society for the Protection of Infant Life, which includes those suggestions, meets with considerable approval, both from Mr. Bruce and from Mr. Göschel. This Bill proposes, as we then proposed, and as Mr. Curgenven and Mr. Benson Baker approve, to utilise the poor-law medical officers, adequately remunerating them for their labour. If not brought forward by Government it will certainly be introduced by influential private measures. The subject of poor-law medical reform will likely be brought forward by Mr. Brady and Mr. Gregory; it will, of course, engage the attention of our Poor-law Committee, and we shall endeavour to co-operate with the Poor-law Medical Associations of England and Ireland in helping to shape and push forward such a measure. Lastly, but most impressive, comes the question of medical reform—too important to be either omitted in the enumeration or discussed merely *en passant*. We shall certainly hear a good deal, and there is reason to hope we shall see something, of it.*

THE distinguished ophthalmologist, Dr. Liebreich, has just passed an examination and been admitted a member of the Royal College of Surgeons. It is stated that he will be invited to accept the ophthalmic chair at St. Thomas's Hospital.

WE regret to read the announcement of the sudden death from heart-disease of Mr. C. J. Rhodes of Pontefract. This young surgeon was only twenty-five years of age, and was happily married a year since to the daughter of Mr. Wood, J. P., and ex-M.P. for Pontefract.

THE death of Dr. Sheridan Muspratt, F.R.S., the well-known chemist of Liverpool, is announced. He was the author of a dictionary of chemistry, which has been highly spoken of, and of some interesting researches, including the discovery of a remarkable spa at Harrogate.

VOTES of thanks to medical officers of hospitals are rarely refused by the governors. At the annual meeting of the Torbay Infirmary, the vote of thanks to the house-surgeon, Mr. Powell, was however not only warmly worded, but also emphasised by a donation of twenty guineas.

DR. DUPLEX and Mr. DE MÉRIC write to add their testimony to that which we published last week, to the courtesy of Mr. Pearse, the public vaccinator at the Tottenham Court Chapel station, under the pressure of a great amount of work and applications for lymph in excess of his power to supply.

IN noticing lately a discourse of Professor Tyndall, we observed that special reference was apparently made in one place to Dr. Lionel Beale, and in another to Dr. Charlton Bastian, whose very words appeared to be quoted. Professor Tyndall wishes us to state that the remarks to which we referred were not directed to Dr. Bastian, but to the writers of our ordinary text-books of physiology.

* It is disappointing to find that the Queen's Message makes no reference whatever to sanitary legislation or pending questions of state medicine.

ONE hundred and ninety-six deaths from small-pox were recorded in London last week. The Registrar-General states that no fewer than one hundred and eighteen were of unvaccinated children and adults.

WE are enabled to state, from an actual inspection of the registers at the Hampstead Small-pox Asylum, that the many hundred patients received there have in all except one instance been brought in ambulances. In the one exception, the man was prosecuted and punished. We are assured by the Chairman of the Asylum Board that precisely the same rigid instructions have been observed at the Homerton and Stockwell Asylums, and that in no one instance has the rule been infringed or the public safety endangered by the use of public vehicles for any of the patients at these institutions. An accurate register is kept, and orders are given to report any infraction of the rule, with a view to immediate prosecution.

SOME complaint was made in our columns last year that the London College of Surgeons gave no information to rejected candidates as to the causes or subjects of their failure. We understand that the Colleges now furnish all successful candidates with a certificate of the subjects in which they passed, and unsuccessful candidates with a list of those in which they failed; so that, if it be any satisfaction to know the precise geography of the rocks on which they have been wrecked, they have that satisfaction; and if "γνωθι σεαυτον" be as useful a precept now as of old, they are furnished with valuable facilities for learning what are their weak points.

THE INTERNATIONAL MEDICAL CONGRESS.

THE Committee charged with the arrangements for the International Medical Congress which it is proposed to hold in Vienna in the course of the present year, has made the following nominations of officers, etc.: *President*, Professor Rokitansky; *Vice-Presidents*, Professors Duchek and Sigmund; *Secretaries*, Dr. Benedikt and Dr. Schnitzler; *Other Members of Committee*, Drs. Oppolzer, Kraus, Pichler, Scott, Wertheim, and Wittelshöfer.

HYDRATE OF CHLORAL.

TEN tons of hydrate of chloral were, we understand, imported during last year from Germany. About a year ago, it was selling at £5 a pound. Its market price is now, we believe, something under five shillings; the difference in price being due solely to the conversion of what was a curiosity of the laboratory into a commercial article. The only materials required are chlorine and absolute alcohol, both cheap enough, but so much cheaper in Germany (where there is no duty on alcohol) than here, that practically there is no possibility of competition between our own and German manufacturers.

TARIFF OF MEDICAL FEES.

DR. MORDEY DOUGLAS of Sunderland writes:

"In reply to my query why, for an ordinary visit, Class II should begin lower than Class I ends, 'One of the Council' says the reason is obvious. Now, as *income* is confessedly the real ground of classification, I presume the 'reason' is the varying incomes of persons living in houses of the same rental. This cannot be applied unless patients are also divided into classes according to income as well as house-rental—i. e., so much rent to represent a specified income. Then, if there be reason to believe that a patient's income is less than his house-rental, suggests the charge per visit may be reduced, and *vice versa*. In the Manchester tariff, the fee for visits and detention in each succeeding class begins where the preceding one ends. In the Shropshire tariff, this plan is observed for detention, but does not obtain for visits; and I would ask 'One of the Council', Why this want of harmony? If it be right to charge a patient *less* for a visit than his neighbour who occupies a house of the same rental, it is obviously wrong for the fee for detention to be the *same* to both patients. In considering the fee for distance, at least in short journeys, time should be taken into account. The fee should not be less than that allowed for detention; therefore the tariff lacks uniformity here. Recall the minimum fee in each case; mileage beyond one mile from home, 1s.; detention per half-hour,

2s. 6d. In reducing distance to time, each mile (beyond the first) to a patient's residence should be counted double, so as to include the return journey. In that case, two miles from home would represent half an hour's detention, if the practitioner walked; and a visit (Class I) would be 2s. 6d. + 2. 6d. for detention. If he were in a cab, the fee would come to much the same; viz.: a visit, 2s. 6d. + cab half an hour, 1s. (fifteen minutes on the road, and fifteen minutes at patient's); + a quarter instead of half an hour's detention, 1s. 3d. In both tariffs, the ordinary visit is the base on which the fee for detention rests; the Manchester remunerating the practitioner at the rate of a visit for every hour detained; the Shropshire, for every half-hour. The time allowed by the latter appears ample. The tariffs are both very good; and the fact that the Shropshire differs so little from the Manchester is a strong proof that the latter is well considered and fairly complete. I trust, sir, that your advice will be acted upon, and that the Councils of all our Branches will discuss the tariffs. Might not a Committee, consisting of one member of the Council of each Branch, finally revise and recommend a tariff at the next annual meeting?"

We believe that the authorities of the Shropshire Ethical Branch are inclined to follow our suggestion in circulating their tariff officially, for comment and suggestion, amongst the other Branches. Of course, in any case, such a tariff would only serve as a guide to practitioners to whom it could be useful, and would be altogether devoid of any compulsory character. It would be rather a friend to advise, than an authority to direct. Its usefulness in this capacity would be increased in proportion as it should acquire the validity conferred by its discussion over a large area, and the consent and approval of many duly constituted and representative bodies. The Shropshire Branch have, we believe, also the intention of adding a suggested surgical tariff.

SMALL-POX AND VACCINATION IN FLORENCE.

WE learn from *L'Imparziale* that, during the first three weeks of the present year, the deaths in Florence were respectively 123, 113, and 147. In the corresponding three weeks of 1870, the numbers were 112, 112, and 117; and in 1869, 105, 99, 101. Among the causes of the increased mortality is small-pox, which in the three weeks caused seven deaths, making in all twenty since its appearance about the middle of November. In the first three weeks both of 1869 and of 1870, there were no deaths from this disease. Croup also caused ten deaths from the 1st to the 21st January. At the Santa Maria Nuova Hospital, all the officials have been revaccinated; and it has been decided not to admit in future any one to service in the hospital who has not been previously subjected to vaccination. Following up a circular letter issued by the Minister of the Interior, the Sanitary Council of Florence has in its turn sent a circular to all the communes of the province, drawing attention to the prevalence of small-pox, and urging the necessity of making as public as possible the benefits of vaccination and revaccination, and of putting into practice all such measures as may be capable of limiting the spread of the disease wherever it may be developed.

SMALL-POX AND VACCINATION IN LIVERPOOL.

OUR Liverpool correspondent, an eminent authority on the subject of vaccination, writes as follows.

The mortality from small-pox has declined during the past two weeks, but the number of cases is still increasing. The absurd prejudices and unfounded fears as to the possible mischief produced by human lymph have given place to a general anxiety for vaccination, and in consequence public vaccinators and other practitioners are literally besieged by impatient applicants for revaccination. The three public vaccination-stations are each now opened twice a week; the south station, conducted by Dr. Steele, is recognised by Government as an educational station, and for the regular transmission of lymph to the central establishment in Whitehall; it is also largely resorted to by practitioners for lymph. The plan of storing lymph which has the preference at this station is on ivory points, being the most economical both as to quantity and as to time, an important consideration at the present moment; it is also much more convenient for transmission than the capillary tubes, or indeed any other method. Observation on a large scale has shown that the point-lymph is somewhat more trustworthy than that which is preserved in the fluid form. Of the efficacy of well-charged ivory points, properly used, we can speak with confidence, from having seen the satisfactory results of numerous cases of vaccina-

tion and revaccination, in which, during the existing pressure, it has been necessary to substitute them for the arm. Medical men who bring their own tubes or bottles have the opportunity of taking the lymph in the way they prefer; and not unfrequently a child or two can be spared and taken away for direct vaccination. The mode of operating at this station for the purpose of teaching is varied from time to time; but the plan which finds most favour just now is the Danish method. Five linear incisions are made with the Danish vaccinator, a small instrument resembling Valentin's knife. These are freely bathed with lymph, and produce fine plump button-like vesicles, without undue irritation. This plan is rapid and very effective. On thirty-eight arms inspected on one day, we found five perfect vesicles in all but three, of which latter one had four, one three, and one two only. The vaccinations at this station are sufficiently numerous to afford a large weekly supply of lymph to the central establishment as well as to local applicants. At the north and central stations the numbers are prodigious; as many as two hundred and fifty have been vaccinated in one day at the north station: here of course is an abundant source of supply for the practitioners of the districts, of which they largely avail themselves, receiving every facility and assistance from Drs. Sinclair and Speer, who have charge of the central and south stations respectively. Their plan of vaccinating is to make for each vesicle two closely parallel incisions with a lancet, bathing them freely with lymph: the results are most satisfactory.

We may here notice that the work going on illustrates the fact, well understood by practical vaccinators, that it is only when a sufficient number of arms can be gathered together that vaccination can be carried on in the best and most efficient manner. The more numerous the cases, the greater the facility for obtaining uniform and satisfactory results—assuming always that the vaccinator knows his work, and carefully avails himself of the opportunity of selecting the best arms as vaccinifers. It is at the numerous attended stations that the largest proportion of typical vesicles and the rarest deviations therefrom are to be seen. This is the practical answer to those who advocate multiplication of stations and indiscriminate increase of public vaccinators.

We feel justified in stating that in Liverpool at all events the arrangements for public vaccination have proved equal to the emergency, and that the fanciful theories of amateur vaccinators as to the superiority of their plan, which involves the necessity of a return to the cow, are as devoid of practical utility as of any solid foundation in fact. That the epidemic has gone so far, and that cases of post-vaccinal small-pox have occurred, can be accounted for by conditions for which the present system is not responsible. The present system has only been in force for two years; and, as for obvious reasons it could not be made retrospective, the invasion of the epidemic found a large number of the population of the town in a state more or less imperfectly, and but too often wholly, unprotected. This is evident now that the panic and the energetic action of the vaccination officers to hunt up arrears has driven a large number of children over two years of age to the stations for primary vaccination. The constant influx of persons from all parts of the world to this great seaport, many of whom are either vaccinated imperfectly or not at all, necessarily swells the list of the unprotected. It is to be feared, moreover, that notwithstanding the conclusive statements published by Mr. Marson some thirty-five years ago, there still lingers in the minds of some crotchety individuals that one vesicle is as good as four or five, and that a puncture with a lancet and the insertion of an infinitesimal quantity of lymph is all that is essential to constitute efficient vaccination; and so it sometimes happens that the baby is vaccinated so gently and tenderly that not a cry is heard, and no unseemly scar is left. But mark the sequel; the imperfectly protected child is reared in false security, and, on the first accidental exposure to contagion or during an epidemic, falls a victim to the disease; or, if he or she escape with life, is probably maimed or disfigured, and thus undeserved discredit is thrown upon the prophetic genius of the immortal Jenner.

FRATRICIDE.

A LEADING member of the Certifying Surgeons' Association calls attention to-day to the very mischievous efforts which Mr. Redgrave is making to destroy the system of medical certification of factory operatives. Those who remember how great were the evils which this part of the Factory Acts has remedied, and who can appreciate the axiom that efficient prevention supersedes the necessity of difficult and extended means of cure, will understand how warmly these efforts of Mr. Redgrave should be opposed. It is from no selfish love of purely class interests that we have been led to declare that the abolition of certificates from factory surgeons would open a door to the renewal of the worst

abuses. We have already urged this view of the case in the JOURNAL for July 1870; and it is not surprising that the thousand certifying surgeons of Great Britain are indignant at finding a professional journal joining hands with their publicly avowed enemy in the effort to bring about their removal from duties which they fulfil with great advantage to the State. There can hardly be a stronger case than that which Dr. Arlidge made out for the extension and confirmation of their functions in his late annual address; and it must, we are fain to suppose, have been in a moment of somnolence that the journal in question allowed some fratricidal hand to strike the blow at the certifying surgeons, which has excited the protest of our correspondent.

THE COLLEGE OF PHYSICIANS ON VACCINATION.

THE Royal College of Physicians of London holds this week a special meeting to receive and adopt a report of a specially appointed vaccination committee. This report is in substance identical with the memorandum issued by the Privy Council, which enters into the matter at greater length. It is especially designed to strengthen the confidence of the public in vaccination and revaccination, and is properly published in the daily papers. It is unnecessary to reproduce it here, as the facts will be found in another column similarly stated: but every one will feel that the College of Physicians has done well to take this step at the present juncture, and the issue of its memorandum will render a public service.

HARD CASII.

It is certainly hard that the gentlemen who have done all the work for the "past public meeting on hospital reform" should find themselves threatened with the burden of all the expenses. Dr. Meadows's letter shows that this is their predicament. This is, however, precisely one of the dangers of spasmodic effort and irregular demonstration by a concourse of fortuitous atoms. There is a good deal to be said about the manner and origin of this particular demonstration; and its present predicament is one of the unpleasant consequences which might without much difficulty have been foreseen, but from which we heartily advocate the immediate release of the gentlemen who are caught in the trap. It is a still more serious consequence of the preference suddenly manifested on that occasion for an improvised organisation and a self-evolved authority, that, now the reports are forthcoming, it is hard to say what to do with them. The meeting came and passed, and left no mark in space. The very limited number of gentlemen who did the work subsequently have prepared elaborate and able reports; and now they have no one to whom to present them; and there is no one to discuss them, to revise them, to confirm them, or to follow them up by any representative or continuous action. If the suggestion will not be thought to come with a bad grace here, we may observe with great humility that there exists an Association which we will only describe in general terms, but which is divided into a considerable number of Branches, and has an organised and persistent existence; that each Branch has its own independent meetings, officers, and Council; and that the consideration of such topics as that to which we have above referred comes specially within their scope. If these reports above mentioned, and the specific recommendations arising out of them, were forwarded to the Councils for submission to and discussion at the meetings, and if the verdicts or comments were subsequently collated and presented to an annual general meeting, we might possibly obtain the benefit of something like a general verdict, or at least a sufficient mass of opinion to have weight—a sufficient number of jurors to influence public opinion and move public institutions, and a sufficiently permanent organisation to prevent this little outburst of light from merely flaring up and rapidly dying out in the socket, leaving no other legacy than the fragrant odour of good intentions. Meantime, and in any case, Dr. Meadows's appeal will, we think, be admitted to be very urgent, and to make a special call on the conscience of the public meeting in question; or, if that meeting, in dissolving, parted with its conscience, and its promoters, though public

men, prefer to enjoy a blushing and irresponsible anonymity, the appeal can still be rightly considered as personally pressing on all those who voted to ask the Committees to undertake the labour which they have gone through, and presumably to incur the expenses which it is now necessary to defray.

SMALL-POX AT SOUTH SHIELDS.

SMALL-POX is very prevalent in South Shields. Twenty-one deaths amongst unvaccinated persons were reported at a recent meeting of the guardians. It seems to us peculiarly disgraceful to the guardians that they have not yet informed themselves that it is their duty to enforce vaccination, and to appoint a special officer under the Compulsory Vaccination Act; and that, after discussing whose duty it might be, in a daft and aimless fashion, upon receiving this distressing information, they "let the subject drop without taking any action". Such conduct seems to us little short of criminal neglect. If they really want to learn their duty, surely they ought long since to have purchased a copy of the Act; and, if they have any doubts as to the best means of doing it, they should apply to the Medical Officer of the Privy Council.

STREET-SALTING *versus* STREET-WATERING.

SINCE putrefaction takes place only in presence of moisture, objections are sometimes raised against the practice of street-watering, which lays the dust, but which, it is feared, provides an opportunity for the development of organic poisons. By means of Mr. Cooper's process, we are enabled to lay the dust, and to kill, or at any rate to paralyse, the germs, at the same time. Mr. Cooper waters streets, not with simple water, but with a solution of chloride of calcium and common salt, to which a little "chloralum" has also been added, in order to increase its activity. By this proceeding, economy as well as health is consulted. A solution of deliquescent salts does not dry up like common water; and so Mr. Cooper makes a little water lay much dust, and thereby spares water and labour. Is not the cost of the salts far greater than any possible saving of this sort? Practice has answered no, and rate-payers may at the same time save their money and disinfect their streets.

LONDON WATER.

MR. WANKLYN writes to us: "In the year 1868, my colleagues of the London Institution and myself published a book, wherein we showed that a large portion of the water-supply of London is remarkably free from organic nitrogenous matter, and that in this respect it will bear comparison with the very best water-supply of any large town—as for instance with that of Manchester, Edinburgh, or Glasgow. On the other hand, we showed that the water from certain Thames companies—from the Southwark and Vauxhall, and from the Lambeth—was of bad quality. Lake-water, such as that of Loch Katrine and Bala Lake, we also showed, was not very pure; and we opposed the scheme of bringing 'mountain-water', as it was called, to London. Water *absolutely pure*, *i.e.*, absolutely free from organic nitrogenous matter, could be obtained, according to us, by careful distillation in the laboratory, by having recourse to deep springs, and by applying Dr. Clark's softening process. We have since that time induced manufacturers to employ the Clark process, and are known to advocate its employment generally. Our book, which is now in its second edition, would seem not to have been devoid of influence upon chemists in authority. From what has recently come before the public in the *Times* and other newspapers, it appears that Dr. Frankland now recognises the goodness of such water as West Middlesex water, and the badness of Lambeth water. To render foul water pure, we no longer hear of 'Nature's grand distillation', but of filtration and the Clark-process. Now the cry is for compulsory 'Clarking', instead of the expenditure of ever so many millions sterling in bringing 'the mountain-water' to London. Dr. Tyndall, again, is at the present time engaged in demonstrating (as I suppose he would say) to Royal Institution audiences how clear is the water of the West Middlesex, and how dirty is that of the Lambeth Com-

pany. The illumination of water by electric light is an impressive ceremony, and will, doubtless, accomplish the object of the performer: but it is not a very good test of the presence or absence of organic impurity; organic matter in solution it will not find, and inorganic matters of all sorts in suspension it will confound with organic impurities. What would chemists have thought of our ammonia-process of water-analysis if it had failed to detect some of the commonest kinds of nitrogenous organic matter occurring in water, and did not distinguish organic matter from inorganic—from carbonate of lime, oxide of iron, and the like?"

GRAVE JOKES.

It is surprising to see from what strange materials really humorous minds can extract mirth. Murder, followed by suicide, is not in itself mirthful; but it seems that in the hands of a judicious coroner and a refined audience it may be the cause of much merriment. At the recent inquest on the body of Barbara Sample, who killed herself with rat-poison on being apprehended for murdering her mistress; the court frequently resounded with laughter at the happy hits of the coroner. His first stroke was a judicious joke at the druggist who sold the poison, who was chaffed at his excessive "greenness" in believing the woman, which elicited laughter; but the real "merriment" was reserved for a more picturesque subject. The coroner was struck with the eyes of the corpse being open, as she lay in the dead-house, and brought the lids two or three times down over the balls; but the lids retracted and left the eyes open even wider. At this recital there was renewed merriment. Here is a quite unexplored mine of amusement. The gravedigger's scene from Hamlet is improved on; the incidents of a double poisoning, of a shocking treachery, and the staring eyes of an unburied corpse have, we imagine, never before been productive of so much merriment.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

AT a Quarterly Court of the Directors of the Society held January 11th, £1,078 : 10 was voted in various sums to fifty-six widows, and £242 to fifty children, for the half-year beginning January 1st. A sum of £22 was granted to one widow and two children, as extra grants from the Copeland Fund. In the absence of the President, Dr. Pitman, Vice-President, took the chair. The court was well attended by the directors. Only two new members were proposed; there were none for election. The directors once again urge on the profession the necessity of increased assistance to enable them to meet the very heavy and increasing demands on the Society. It is expected that the balance-sheets of 1870 will show but a few pounds to the credit of the Society. It having been decided that no anniversary festival be held this year, the directors earnestly request the wealthier members of the profession to make donations to the declining funds of the Society.

A FAT KIRKYARD.

WE should hope that such scenes as that witnessed last week by Mr. Ikin at the Burmantofts Cemetery, Leeds, are not common. Parts, at least, of the ground are evidently overcrowded with corpses. In digging a fresh grave, the soil opened was so tainted that the mourners were choked and sickened. The chaplain had to turn his back on the grave, and hurried away to recover from the faintness and sickness which overcame him; and the whole scene must have been not less scandalous and sickening than it was dangerous. We call the attention of the inspector of burial to this recital: the overcrowding of graveyards has been greatly checked in the metropolitan districts, and Leeds should not fare worse.

EDINBURGH UNIVERSITY CLUB.

THE annual general meeting of this Club was held on Wednesday, February 8th, at St. James's Hall; E. Chisholm Batten, Esq., M.A., in the chair. Dr. Lyon Playfair, C.B., Member of Parliament for the University of Edinburgh, was elected a Vice-President of the Club, in the room of Sir Charles Nicholson, Bart., who retires by rotation. Dr.

Basham, W. Keiser, Esq., M.A., and Professor Ramsay, were elected new members of Council. Mr. Richard Davy was appointed one of the Honorary Secretaries, to assist Dr. Duckworth in his arduous duties. The Annual Report was read; and Dr. Halley, Honorary Treasurer, presented his annual statement of the finance. The sum of £5:5 from the funds of the Club was voted towards each of the following objects: 1. The University Endowment Association; 2. The Goodsir Memorial in the University. After the meeting, Mr. Batten presided at the dinner; eighteen members and five guests were present. A subsequent Council-meeting terminated this agreeable reunion.

WOUNDS OF THE STOMACH.

DR. BOWEN of Preston gives some of the most astounding surgical evidence which we have read for a long time, in the trial of a startling case. The patient was stabbed in the belly on Tuesday; and Dr. Bowen's evidence is, that the stomach itself was wounded, and, besides, protruded through the abdominal gash: the man had been eating and drinking freely. There was neither collapse, fainting, escape of the contents of the stomach, hæmorrhagic vomiting, nor peritonitis. The stomach thus described as incised protruded and firmly grasped in the wound was poulticed till Wednesday morning, and then returned by pressure to the cavity of the abdomen. On Friday the young man began to take beef-tea. This very marvellous case excites some natural incredulity, we observe, in the minds of some of the professional witnesses; and it is a pity that Dr. Bowen refused to allow Mr. Reginald Harrison of Liverpool, who was sent for, to see a case presenting so many very marvellous and hitherto unrecorded peculiarities.

WORKING MEN'S HOSPITAL FUNDS.

THE annual meeting of the Working Men's Fund for the extension of the Queen's Hospital, Birmingham, was held on Tuesday last. The report showed that £3,208 had been contributed, of which £2,381 was by direct contribution from the working classes. The Chairman, Mr. Avery, mentioned that in Dundee, with but a quarter of the population of Birmingham, the working men last year contributed £1,201, and in Glasgow the working men's subscriptions had risen from £938 in 1852 to the noble sum of £6422 last year. It only needed the courageous sympathy and the organising faculty of Mr. Gamgee to stimulate the best qualities of the working men in aid of this movement in Birmingham, and he predicted that in the future a great aggregate result would be attained, both morally and in a pecuniary sense.

SCOTLAND.

MEDICAL SCHOLARSHIP FOR WOMEN.

THREE ladies offer a scholarship of the value of £50, tenable for three years, to be awarded in March by competitive examination at Edinburgh.

EDINBURGH UNIVERSITY COURT.

AT the meeting of the University Court on Monday, the Lord Justice Clerk in the chair, Dr. William Robertson, Mr. Benjamin Bell, and Dr. William Dumbreck were appointed examiners in medicine for the year 1871. The lectures of Dr. Alexander G. Miller on Surgery were recognised as qualifying for graduation in medicine in the University.

WILLIAM KEITH.

DR. WILLIAM KEITH, of Aberdeen, who has just passed away from among us, was one of the best known figures in Bon Accord. He had for a long series of years played an active part in professional and in public life. As a surgeon, as a lecturer and teacher, he had attained one of the first positions in the town, and was remarkable for his personal qualities no less than his professional attainments. Eccentric in character, but of a religious temperament, and imbued with public spirit, he played a part in civic life which will make him missed in other than professional circles. Dr. Keith had perhaps a larger expe-

rience in lithotomy than any other contemporary surgeon in this country; he adopted a modification of Cheselden's operation, and his success was remarkable. His experience was freely communicated, and the record of his practice, published a few years since in abstract in this JOURNAL, is a *locus classicus* in surgical literature. He was also the author in conjunction, with Dr. Pirrie, of an important work on acupressure. Dr. Keith was a brilliant operator, cool, fertile in resource, and never at a loss to meet emergencies. In one instance, while he was extracting a needle from the fauces, the carotid began to spout after an alarming fashion, which left little time for deliberation: instantly and with perfect calmness Keith laid his patient back, cut down upon and secured the internal carotid, and saved his patient's life, alone and without assistance. She frequently afterwards paid a visit to her saviour. Recently, Dr. Keith began to lose something of the erect and alert vigour which marked his green old age. To the last he remained a fine surgeon, and a sound, bright, inspiring teacher, who communicated ably to his dressers and pupils his own practical knowledge. His character was of so much force as to leave its impress on those with whom he came into contact. Last year he travelled through America, in search of renewed vigour after an attack of paralysis. On his way back, he called on us to promise a future account of his impressions; these, we fear, will never be forthcoming, but we are not without expectation of gathering together some of the broken threads, and completing the record of his life's experience in the operation of lithotomy.

IRELAND.

THREE cases of small-pox are recorded at Drogheda. The Poor-law Board, wisely vigilant, immediately urges the fact upon the special attention of the guardians.

THE allegations by the Rev. W. Conway, as to defective medical relief to the sick poor in the west of Ireland, are pronounced by the Commissioners, after inquiry, to be chiefly due to an inordinate desire to represent the administration of the Poor-law in an odious light.

THE Belfast Branch of the Royal Medical Benevolent Fund Society of Ireland held last week its stated annual meeting, the chair being occupied by Dr. T. H. Purdon. There are some striking features in the organisation of this Society, to which we shall refer very shortly.

SMALL-POX IN IRELAND.

THE Registrar-General of Ireland was enabled to report at the beginning of the year, that during the whole of 1870 no fatal case of small-pox had occurred in Dublin, and throughout Ireland that small-pox had been almost stamped out. Ireland, however, will, we fear, have to suffer for our sins. Repeated and incessant importations have occurred recently. At Belfast, where the guardians have been negligent of vaccination, the disease began to spread; numerous cases were reported, and one death was registered last week.—We regret to state that four cases of small-pox have appeared in Dublin. They have all been clearly proved to be the result of importation. Three were recruits just sent over from England; the fourth was a young woman who casually worked in the military hospital where they were under treatment. In the case of recruits, they should all have vaccination performed on them before leaving England. The Irish Poor-law Commissioners, we understand, are desirous that all public institutions in which small-pox makes its appearance should at once communicate with the dispensary medical officer of the district, in order that he may find out the history of the case and report accordingly. To the energetic performance by these officers of the combined duties of registrars, vaccinators, and reporting officers, is due the large immunity from small-pox which Ireland now enjoys, and, we trust, will continue to enjoy.

NOTES OF THE WAR.

CHARITY IN ELECTIONS.

AN effort will be made to infuse an element of charity into the elections about to be held for the first Reichstag of the new German empire. The Berlin Central Help Committee has addressed letters to the international aid-unions throughout Germany, expressing a desire that at the next election of members of the Reichstag the opportunity may be taken of making a collection in support of the voluntary aid of the sick and wounded. The Committee remark that the closely approaching day on which the German voters will be called on to seal, by the election of the first Reichstag, the union of the German races and the re-establishment of the German empire, seems an especially appropriate occasion for remembering those who have laid down their lives and health in the contest, and those who are now suffering from wounds and disease. It is therefore suggested that collecting-boxes, with the inscription, "The thanks of the electors to the German warriors", be placed in the voting rooms on the day of election, and that the money thus collected be applied to the use of the sick and wounded.

AID TO THE SICK AND WOUNDED.

THE sixth report of the Berlin Society for the Aid of the Sick and Wounded in War has lately been issued. During the half-year ending January 22rd, 251 consignments of articles had been made to depôts, 516 to lazareths, and 52 to the armies in the field. The Central Committee had expended about 2,030,000 thalers in the purchase of necessary articles; and much assistance had also been received in the form of numerous gifts of useful materials of various kinds. Among the articles sent out by the Committee were the following: 74,000 blankets, 51,000 ells of India-rubber cloth and water-proof sheets, 557,000 woollen stockings, 233,000 pairs of drawers and 137,000 of socks, 196,000 shirts and 345,000 body-bandages, 1,065,000 bandages of all kinds, 69,000 pounds of charpie, 283,000 compresses; together with a large number of surgical instruments and apparatus, including 90,000 packets of Dover's powder and of quinine and morphia, 50,000 bottles of laudanum and 10,000 of hydrate of chloral, and more than 3,000 pounds of chloroform. The articles sent included also 244,000 hams and pieces of smoked meat, 43,000 pounds of sausages and 13,000 of extract of meat, together with a million bottles of wine, cognac, arrack, liqueurs, brandy, etc.

ASSOCIATION INTELLIGENCE.

NORTH WALES BRANCH.

THE next intermediate general meeting of the above Branch will be held at the Belvoir Hotel, Rhyl, on Tuesday, February 14th. Members of the Council of the Branch are requested to meet at 12.30 P.M. The general meeting will commence at 1 P.M.: T. F. EDWARDS, Esq., Denbigh, President.

Dinner will be provided at the end of the meeting to suit members leaving by early trains.

Gentlemen who intend to be present, to communicate papers or cases, and who purpose dining, will please to send early notice to

D. KENT JONES, *Honorary Secretary*.

Beaumaris, January 25th, 1871.

BATH AND BRISTOL BRANCH.

THE next meeting of the session will be held at the York House, Bath, on Thursday evening, March 2nd, at 7 o'clock; CHARLES BLEECK, Esq., President.

R. S. FOWLER, }
E. C. BOARD, } *Honorary Secretaries*.

Bath, February 8th, 1871.

METROPOLITAN COUNTIES BRANCH.

AN ordinary meeting of this Branch will be held at the Charing Cross Hotel, on Friday, March 3rd, at 8 P.M.; T. HECKSTALL SMITH, Esq., President, in the Chair.

Mr. Fairlie Clarke will read a paper on the Medical Aspects of Pauperism.

A. P. STEWART, M.D. }
ALEXANDER HENRY, M.D. } *Honorary Secretaries*.

London, February 9th, 1871.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT MEDICAL MEETINGS.

THE March meeting of members of the above District will be held on Wednesday, March 8th, at 3.30 P.M., at the Sussex Hotel, Tunbridge Wells: CHARLES TRUSTRAM, Esq., in the Chair.

Gentlemen willing to contribute papers, etc., will greatly oblige by letting me know at their earliest convenience.

Dinner will be provided at 5.15 precisely. Charge, 5s., exclusive of wine.

FREDK. CHAS. MUDD, *Honorary Secretary*.

Albion Villa, Uckfield, February 7th, 1871.

CORRESPONDENCE.

MEDICAL REFORM.

SIR,—My recent letter on medical reform has drawn forth a great deal of comment, and replies of two kinds. In the first place, I have received assurances more by far than I anticipated in favour of the views which I ventured to express. But it is the second kind of reply of which I wish now by your permission to speak. I have received from many gentlemen of high place in the British Medical Association certain serious remonstrances which I was bound to respect, but accompanied with expressions of courtesy and personal consideration which I had no right to expect. These remonstrances, thus expressed, claim my immediate attention, and they seem to have reference to two points wholly or chiefly.

Firstly, it is said that my expression of opinion is inopportune, as it tends to disunite the profession, and to make it a byword that our cohesion is but the cohesion of a rope of sand. Now, sir, as to this point, let me assure the Association that it is not my intention to divide the profession. Discussion, I believe, is still open to all, and is even sought by the Association, whose desire must be to give effect to the decision of the profession at large. With this view I wrote; but when the time for discussion may fairly be said to have ceased and that for action to have come, be assured that I shall no longer decline to follow the resolution of the majority of my brethren. I am neither made for, nor seek to be, a captain of a faction; meanwhile we must expect, and all persons must expect, to see that a great constituency like ours can neither agree, nor approach agreement, in so great a question in discussion. Did we all run like sheep together, it would speak ill for our brains. The second remonstrance is, that I ought to have expressed my views sooner, and in particular at the annual meetings. I have been disappointed in my strong desire to attend these meetings, and was present only at that held in Leeds. I was then too much engaged, as one of the hosts, to find time for other matters. Had I been at Dublin or Newcastle, I should, no doubt, have been drawn into discussion, should have gone earlier into the matter, and should have arrived at those opinions which, as it is, are certainly the result of a much more recent industry. Finally, my letter was sent elsewhere, as I thought considerations of time and space would have prevented you from giving me place for a long letter in opposition to a scheme upon which your own mind and that of the Reform Committee were already made up.

I am, etc.,

T. CLIFFORD ALLBUTT.

Leeds, February 8th, 1871.

THE MEDICAL ASPECTS OF THE FACTORY ACTS.

SIR,—The "Medical Annotations" of the *Lancet* of January 28th contain an article on the above question, which must have excited considerable surprise amongst the large body of certifying surgeons throughout the kingdom; and, though it is not so decidedly hostile to them as several other articles which have lately found insertion in several of the daily papers, yet the profession generally, as well as the Association of Certifying Medical Officers, have a right to look for the staunch and unqualified support of a professional journal, in all matters relating to the interests and well-being of medical men. I venture to appeal to the British Medical Association through its JOURNAL, to see that justice is done, and that the public be not misled in this important matter. Without giving the whole of the paragraph in question, I shall feel greatly obliged by your giving insertion to the following remarks on one or two of the points therein contained.

It is first remarked that Mr. Inspector Redgrave is perfectly right—"first, in stating that a medical certificate is not wanted to gain proof of a child's age;" "secondly, that the system of requiring the certificate to be renewed whenever the child changes his or her place of employment, is vexatious and absurd in the extreme." The certifi-

cate, when first granted by the certifying surgeon, is not one merely as certifying to the age of the child or young person, but it also refers to other and much more important points.

In order that this may be clearly demonstrated, I give the exact words of the certificate, which are as follows: "And that the said young person has the ordinary strength and appearance of a young person of at least thirteen years of age, and that I believe the real age of the said young person to be at least thirteen years; and that the said young person is not incapacitated, by disease or bodily infirmity, from working daily in the above-named factory for the time allowed by this Act." From this it is perfectly evident that the age certificate is not the useless one which Mr. Redgrave would assert it to be.

Again, when he remarks about the absurdity and vexatiousness of renewing the certificate when the child or young person changes his or her place of employment, is it to be taken for granted that this said child or young person is always to be in the same happy state of freedom from disease or bodily infirmity, and to be exempt from all the ills to which flesh is heir, until the age is attained when medical supervision is considered to be unnecessary?

I think it will be conceded by all who have any knowledge of health and disease, that the period of life between thirteen and eighteen in both sexes, but especially in females, is a very critical one, and that a little medical supervision during that period may often be the means of warding off and preventing many symptoms of disease which, if left unchecked, would possibly endanger the well-being, if not the life, of many of the young of both sexes, especially in the working classes. If certifying surgeons were allowed the privilege of frequently inspecting the workers as well as the work-rooms in the various factories which come under the Factory Act, a second certificate or inspection might not be required; but, as this is not permitted, a second examination cannot be considered as useless, however much it may be thought to be absurd and vexatious.

As to the statement that the "operation of the Factory Acts has not hitherto improved either the minds or *physiques* of the employed in any perceptible degree," I must again refer to those best capable of judging on these important points, viz., the certifying surgeons, as to the *physique* of the employed, and to school inspectors as regards the mind; for certainly the school time system must have caused more children to attend school than otherwise would have been the case.

There are upwards of one thousand certifying surgeons throughout the kingdom, and surely this large number is quite equal to the work required.

I am, etc.,

A CERTIFYING SURGEON.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

PROPOSED ALTERATION OF VACCINATION ARRANGEMENTS.

THE Poor-law medical officers of St. Pancras have received a letter from the Poor-law Board in reply to theirs seeking an interview with Mr. Göschel respecting the proposed appointment of only one vaccinator for the whole parish. The President of the Poor-law Board was not aware of any proposed alteration in the existing arrangements, and requested to be informed as to the extent and nature of the proposed change. This is a striking comment on the existing disunion and confusion of central and sanitary authority.

VACCINATION ARRANGEMENTS.

AT a conference of the Council of the Poor-law Medical Officers' Association and the Poor-law Committee of the British Medical Association, held at 9, Spring Gardens, on Tuesday, the following resolution was passed.

"That, in the opinion of this conference, the modifications of the vaccination districts now in progress at the instance of the Privy Council are not the best which can be devised for meeting the emergency of the present epidemic, or securing the most efficient and universal vaccination, and are such as to inflict hardship on the Poor-law medical service. That in Ireland vaccination arrangements of a much simpler character, carried out exclusively by the Poor-law medical officers, have proved eminently successful in the stamping out of small-pox. That Mr. Simon be requested to appoint an early day for an interview with the joint committees, so that they may be enabled to lay their views on this important subject before him."

AN OFFICIAL DILEMMA.

THE following circular has been issued by the Poor-law Board to the medical officers.

February 2nd, 1871.

SIR,—The Poor-law Board direct me to call the attention of medical officers of districts and workhouses to the necessity of exercising discrimination in the cases of small-pox which may be recommended for admission into the hospitals provided by the Metropolitan Asylum Board.

It has come to the knowledge of the Board that some patients have been sent to these hospitals in so advanced and aggravated a state of the disease as to offer but little hope of recovery, and to render the danger of removal especially great. The Board desire that medical officers should understand that a grave responsibility rests upon them of deciding in each case whether the removal of the patient from his home to the hospital is a course likely to be attended with such danger as to render it inadvisable; and they have requested the medical superintendents of the various asylums provided by the Metropolitan Asylum Board to inform them of all cases in which the patient on his admission into hospital may be found in a moribund condition, in order that such cases may be fully investigated by the Board.

It must be understood, however, that the Board attach the highest importance to the removal, at as early a period as possible, of every case for which hospital accommodation is available, and which can, in the opinion of the medical officer, be removed without urgent danger to the life of the patient.

I am, Sir, your obedient Servant,

A. FLEMING, Secretary.

*** This urgent and somewhat minatory document seems hardly so explicit and rational as an instruction of this kind should be. It opens with an intimation that, where there is "little hope of recovery" small-pox patients should not be removed from their homes. It ends with a declaration that all should be sent to hospital who can be removed "without urgent danger to life." For neglecting either instruction the medical officer is liable to the vague penalties of the fullest investigation by the Board, and seems here to be in a fair way of being impaled on the horns of an official dilemma.

THE SANITARY MUDDLE.

WHY do the Poor-law Board assume to interpret the prosecuting clauses of the Vaccination Act without consulting the Privy Council, and the Privy Council without reference to the Poor-law Board? The result is the most distressing impotence arising from the conflict of directions. The magistrates of Yarmouth having refused to convict a Mr. Harrison, who declined to have his child vaccinated for fear it should injure its health, the Poor-law Board have positively written to the Guardians stating that this is an exceptional case, and recommending the Board to be very careful how they prosecute, lest they raise prejudice. It may be conceived with what amazement such a communication is received. If this be really the opinion of the Board, they may leave off all talk of compulsory vaccination altogether: it is really saddening to see so monstrous a decision, and so painful an interference with a beneficent law by the very authorities who are bound to uphold and enforce it. Mr. Harrison's is the ordinary excuse of recalcitrants, and to abandon such prosecutions is to abandon the enforcement of the law.

MEDICAL ORDERS FOR FOOD IN SICKNESS.

SIR,—The communications inserted in to-day's JOURNAL on this matter, induce me to write to you, as I have had some experience of relieving officers refusing to grant relief on the recommendation of the medical officer, and have, moreover, a very strong opinion on the matter. You say Mr. Peel's reply is cautiously worded, but did you ever see a reply from the Poor-law Board, to a letter asking its opinion or advice, that was not "cautiously worded"—that did not, in fact, stick to the strict "letter of the law"? I never did, and I have seen a good many of them. But, with all due submission to the superior knowledge of the Secretary of the Poor-law Board, I beg to take exception, and I do so advisedly, to one part of his letter, as a statement of fact or law; and it is this:—"that it rests with the relieving officer or guardians to decide, etc." It certainly does rest with the guardians to decide, but I submit that it does *not* rest with the relieving officer.

I cannot understand the force of Mr. Peel's remark, that "if any other course were to be followed it would have the effect of constituting the medical officer the absolute judge, not only of the kind of relief to be afforded, but also of the capability of the patient to provide it out of his own resources, without leaving the question for the consideration of the guardians, etc." It is of the relieving officer Mr. Brookes complains more particularly—not of the guardians in the first instance; and surely the medical officer is the only officer who can be the absolute judge of what nourishment is *needed* by a sick pauper, although, of course, it is for the guardians to say whether they shall provide that relief, or whether they believe him an unfit subject for such relief.

The order of the medical officer is no doubt a *recommendation* to the guardians, but for all practical purposes it is an order to the relieving officer; and so strongly do I feel that this is the proper legal interpretation of the whole thing, that, were I now a district medical officer, and the relieving officer refused to carry out my recommendation, and the patient suffered in consequence, and afterwards died, I would decline to give a certificate, and would refer the matter to the coroner. The Consolidated Orders, in reference to the duties of the relieving officer, say:—"In every case, etc., to visit the house of such person, and, *until the next ordinary meeting of the guardians*, to supply such relief (not being in money) as the case on his own view, or in the certificate of the district medical officer, may seem to require." (The italics are my own.) If I read this order right, I maintain that it is the *duty* of the relieving officer to give the extras ordered by the medical

officer until the next meeting of the guardians, and that they may then decide whether they should be continued or not; and that if he decline to do so, and any harm come to the patient in consequence, the relieving officer lays himself open to very serious consequences. I have tried it over and over again when I was a district medical officer, and the guardians invariably took this view of the matter. My orders were frequently refused by the relieving officer, but I always sent to him again and again until the extras were given. I always told the relieving officer that, if the patient died, and the fatal result were in any way accelerated by his refusal to grant extras, he should settle the difficulty with the coroner. If the medical officer will only adhere to the principle of what is right, and be firm in every case (I acknowledge it will give him a great deal of extra trouble), he will get over his difficulties in the end. I am, etc.,

A VICE-PRESIDENT OF THE POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

VACANCIES.

- ALNWICK UNION, Northumberland—Medical Officer and Public Vaccinator for the Embleton District (£30 per annum, and extra fees): applications, 22nd, to J. A. Wilson, Clerk to Guardians; election, 25th.
- ASTON UNION, Warwickshire—Medical Officer and Public Vaccinator for the Sutton Coldfield District (£42 per annum, and extra fees): applications to John Lumby, Clerk to Guardians, 89, New John Street, Birmingham, 28th; election, 28th; duties, March 7th.
- DURSLEY UNION, Gloucestershire—Medical Officer for District No. 3 (£70 per annum, and Vaccination and Midwifery Fees): applications, 15th, to G. Wenden, Clerk to Guardians; election, 16th.
- FALMOUTH UNION, Cornwall—Medical Officer for the Constantine District: applications to the Vicar of Constantine; vacancy, March.
- LOCHBROOM, co. Ross and Cromarty—Parochial Medical Officer: applications, 13th, to Inspector of Poor, Ullapool.
- KIRKMICHAEL, Dumfriesshire—Parochial Medical Officer: applications, March 1st, to Inspector of Poor.
- POPLAR AND STEPNEY SICK ASYLUM DISTRICT—Resident Medical Superintendent for the new Asylum at Bromley, Middlesex (£250 per annum, with board, furnished apartments, and washing): applications, 24th, to Robert Fokett, Clerk to Managers, Union Workhouse, Stepney.
- ST. OLAVE'S UNION, Southwark—Medical Officer for the No. 3 or Landside District.
- ST. PANCRAS UNION—Medical Officer for the School at Leavesden, Herts (£100 per annum, with ratings, furnished apartments, and washing): applications, 13th, to David Fildew, Clerk to Guardians, Vestry Hall, St. Pancras; election, 16th.
- STRAND UNION—Medical Officer for the St. Martin's-in-the-Fields District (£150 per annum: all medicine supplied from the Union Dispensary): applications, 13th, to John Jeffrey, Clerk to Guardians, 6, Bow Street.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION OF IRELAND.

THE following circular is being forwarded to every Poor-law medical officer in Ireland, and we trust that it will meet with success. The programme of the Association, which we have already laid before our readers, is given in a condensed form. The disposition of the surplus Church fund, regarding which Mr. Gladstone, on the introduction of his Bill, stated that part of it would probably be devoted to medical institutions, will inevitably be discussed this session. The Poor-law medical officers of Ireland have therefore now an opportunity that will not again occur. It is the common experience that, unless men look after their own interests, they are not likely to be very satisfactorily cared for.

1, Harrington Terrace, Dublin, February 1871.

DEAR SIR,—Should you not have already forwarded me the names of the gentlemen whom you have elected to be your Union and County representatives at the Poor-law Medical Officers' Association, Ireland, it is of the utmost importance that you should do so at your earliest convenience. The Session of Parliament will open on the 9th of this month, and it is expected that some most important measures affecting not only Poor-law medical officers, but the profession at large, will be brought forward. It would be most desirable, therefore, that the organisation should be placed in communication with the Parliamentary representatives of each county and borough throughout Ireland, at as early a date as possible.

You are doubtless aware that the British Medical Association has placed a considerable portion of their JOURNAL at the disposal of this Association, for the purpose of recording its proceedings, etc., and as a means of intercommunication with our brethren, the Poor-law medical officers of England, Wales, and Scotland, who have also united for the advancement of their interests; this, with the aid of the British Medical Association, numbering in all over four thousand medical men, cannot fail to have immense weight in all social and political subjects of a medical nature, whether affecting either the public or the profession.

In answer to numerous communications, I beg to state that it is proposed that the reports of this Association should not be restricted merely to the discussion of grievances of Poor-law medical officers, which, no doubt, are very numerous, but that the many interesting cases which frequently come under their notice should also be discussed, thus adding additional interest to its proceedings in a scientific point of view. The utilisation of workhouse hospitals, for instance, as schools for pathological research, would be of vast importance; and many other subjects will at once occur to you.

In alluding to the programme, as already sketched in the columns of the BRITISH MEDICAL JOURNAL, the whole payment of our salaries by the State, instead of half as at present, will be advocated, thus forming us into a branch of the Civil Service, whereby promotion, increase of salary, according to length of service, and compulsory superannuation, would take place—thus in many instances rendering

the service to a certain extent independent of local jealousies and interference, which very often interfere with its efficiency. The indiscriminate issue of dispensary tickets—whereby our private practice is materially affected—will also form a suitable subject for discussion. The prevention of the imposition of gratuitous practice of medicine and surgery on an already ill-paid and hard-worked body of men, such as is contemplated in the late Act for the Commission of Dangerous Lunatics, "without fee or reward," is also worthy of consideration.

A New Sanitary Act will probably be brought in this Session, and, if immediate steps are not taken, may also be gratuitously imposed on the Poor-law Medical Officers of Ireland; those of England and Wales have already taken steps that they shall be remunerated for their services should it pass—and we should co-operate with them. The Royal Sanitary Commission was appointed by the Government at the request of the British Medical Association, and that Association will, of course, be enabled to exert considerable influence in modifying the legislation which will spring out of its report.

You will see the importance of these matters being brought immediately under the notice of our Parliamentary representatives. With regard to the first, that is, that our whole salaries should be paid by the State, it is worthy of remark that the influence of the sanitary condition of a particular place is not merely confined to an Union, or Parish, or even a County. The present outbreak of small-pox in Ireland well exemplifies this fact, as in almost every instance it is the result of importation from England; for this reason it is advanced that the medical expenditure of the country in connection with the Poor-law should be wholly paid by the State. It has already been put forward by the BRITISH MEDICAL JOURNAL that this would take nearly £80,000 a year off our poor-rates, a matter which would naturally form a subject for conference between our various representatives and the various Boards of Guardians throughout the country. It is of the most vital importance that this question should be brought before Parliament without delay.

The fact that the Medical Charities' Act has now been in operation exactly twenty years, and that the only amelioration of the condition of the Poor-law Medical Officers during all these years is a dubious and merely permissive Superannuation Act, shows that such an organisation as that proposed by the formation of "The Irish Poor-law Medical Officers' Association", is badly wanted, and fully explains why it has received such support in almost every Union in Ireland. May I ask you again, therefore, to send me the names of your County and Union representatives, for the purpose of forming the Council, the election of Presidents, and making arrangements for the holding of the first General Meeting, with as little delay as possible. In order to facilitate matters, and to show you the strength of our numbers, you will find on the other side an analysis of the number in each County, and the average in each Union, of the Poor-law Medical Officers of Ireland. There may be some apparent discrepancies arising from the fact that in some Unions there are several workhouse officers, and in others, where there is but one, he may hold a dispensary as well; this you can readily correct.

I remain, dear Sir, yours very truly,

D. TOLER T. MAUNSELL, General Secretary.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.

MR. ERASMUS WILSON, F.R.S., the Professor of Dermatology, will bring his course of lectures on that important subject to a close this day (Friday); and on Tuesday next, the 14th instant, the President of the College, Sir William Fergusson, Bart., will deliver the Hunterian Oration at three o'clock precisely. On the following Friday, the 17th instant, Mr. W. H. Flower, F.R.S., the Hunterian Professor of Comparative Anatomy and Physiology, will commence his course of eighteen lectures on the Characters, Structure, Functions, and Modifications of the Teeth and Allied Organs in the Mammalia. The lectures will be delivered, as usual, on Mondays, Wednesdays, and Fridays, at four o'clock. The following is a programme of the course.

Essential characters and structure of teeth.—Development and succession of teeth.—Classification and nomenclature of teeth. Dental formulæ.—Modifications of the characters of the teeth in the different groups of the mammalia.—Teeth of man.—Teeth of *Simiina*. Old-world monkeys. New-world monkeys.—Teeth of *Lemurina*.—Teeth of terrestrial *Carnivora*. Dogs and allied forms. Cats and allied forms. Bears and allied forms.—Teeth of *Pinnipedia*. Sea-bears and seals; walrus.—Teeth of *Insectivora*. Hedgehogs, moles, shrews, etc. Galeopithecus.—Teeth of *Chiroptera*. Frugivorous bats, insectivorous bats, blood-sucking bats.—Teeth of *Rodentia*. Hares, guinea pigs, porcupines, rats, squirrels, etc.—Teeth of *Cetacea*. Odontocetes or toothed whales; dolphins, porpoises, narwhal, sperm-whale, ziphius, and allied forms. Zeuglodonts. Mystacocetes or whalebone whales; rudimentary teeth. Structure and function of baleen or whalebone.—Teeth of *Ungulata*. Perissodactyles; ancient and modern forms, palæotherium, horse, rhinoceros, tapir. Artiodactyles; pigs, hippopotamus, anoplotheridæ, camels, chevrotains, and pecora (deer, giraffe, antelopes, sheep, goats, and oxen). Teeth of hyrax, of toxodon, of typotherium, and other anomalous forms.—Teeth of *Proboscidea*. Elephant, mastodon, dinotherium. Teeth of *Sirenia*. Dugong and manatee.—Teeth of *Edentata*. Sloths, anteaters, armadillos.—Teeth of *Marsupialia*. Opossums, thylacine, dasyures, perameles, phalangers, kangaroos, wombats. Fossil marsupials.—Value of dental characters in drawing inferences as to the affinities and habits of extinct animals.—Horny teeth of *Monotremata*. Ornithorhynchus.

The course will conclude on Wednesday, March 29th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations, were admitted members of the College at a special meeting of the Court of Examiners, on February 8th.

Liebreich, Frederick Richard, M.D. Berlin, Cork Street, Burlington Gardens (Middlesex Hospital)
Chessall, Wm., M.D. St. And. and L.S.A., Horley, Surrey (Middlesex Hospital)

APOTHECARIES' HALL OF IRELAND.—At the quarterly examination in Arts, held on January 20th, the following candidates passed successfully. The names are arranged in alphabetical order.

Bergin, Daniel	O'Connor, James
Emerson, Thomas Gilbert	Revell, John
Kenny, Michael Joseph	Seagraves, Charles
Leggett, Charlotte Maria Janthée	Smith, Michael
Murphy, James	Spain, Rody
McCabe, John	

At the quarterly examination for the License to Practise, which commenced on January 2nd, the following gentlemen were successful.

Barry, John Richard	Kidd, Henry
Boland, Christopher Thomas	McEntee, Charles William
Halahan, John W.	

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, February 2nd, 1871.

Green, Charles Josephus, Sunningdale, Berks
Turner, William Mulholland, King's Road, Chelsea

The following gentleman also on the same day passed his first professional examination.

Parkhouse, Henry, Westminster Hospital

MEDICAL VACANCIES.

The following vacancies are announced:—

ABERDEEN UNIVERSITY—Lecturer on Clinical Surgery.
CHARING CROSS HOSPITAL—Another Assistant-Surgeon: applications, to Henry Woolcott, Sec.; election, 15th.
DEVON AND EXETER HOSPITAL—House-Surgeon (£150 per annum, with board and lodging): applications to Edwin Force, Sec.
EAST LONDON HOSPITAL FOR CHILDREN, Ratcliff Cross—House-Surgeon: applications, 21st.
GLASGOW TOWNS HOSPITAL—Assistant Medical Officer: applications to Dr. Robertson.
HOSPITAL FOR WOMEN, Soho Square—Physician: applications, 18th.
KENT COUNTY OPHTHALMIC HOSPITAL, Maidstone—Consulting Surgeon: March 18th.
KERRY DISTRICT LUNATIC ASYLUM, Killarney—Resident Medical Superintendent: applications, 20th, to the Under Secretary, Dublin Castle.
NORTHERN INFIRMARY, Inverness—House-Surgeon and Apothecary (£40 per annum, with board, etc.): applications, 14th, to Alexander Dallas, Sec.
NORTH ORMESBY COTTAGE HOSPITAL, Middlesbrough—House-Surgeon.
NOTTINGHAM DISPENSARY—Hon. Physician; Four Hon. Consulting Surgeons; Assistant Resident Surgeon (£120 per annum); election, 27th. Applications to Martin J. Preston, Sec.
QUEEN ADELAIDE DISPENSARY, Bethnal Green Road—House-Surgeon (£100 per annum, with furnished apartments, coal, and light): applications, 28th, to Rev. T. Peckston, Hon. Sec., 260, Cambridge Road; election, March 3rd.
ROYAL SURREY COUNTY HOSPITAL, Guildford—Medical Officer: 23rd.
ST. MARY'S HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, Quay Street, Manchester—Medical Officer for Out-patients (£60 per annum, with board and residence): applications, 17th, to Joseph Barber, Sec.
ST. THOMAS'S HOSPITAL—Assistant-Surgeon: election, March 9th. Resident Assistant-Surgeon: election, Feb. 28th. Applications (for both offices), Feb. 14th, to the Treasurer, 13, St. Thomas's Street.
WICKLOW COUNTY GAOL—Medical Officer: applications, 13th, to J. W. Fetherston, Head Local Inspector.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*ANDREW, Edwyn, M.D., appointed Surgeon 1st Administrative Battalion Shropshire Rifle Volunteers, *vice* W. J. Clement, M.P., deceased.
*COWELL, George, Esq., Assistant Surgeon to the Westminster Hospital, elected Assistant Surgeon to the Royal Westminster Ophthalmic Hospital, *vice* Jabez Hogg, Esq., promoted.
LYLE, Thomas, M.B., C.M., appointed Assistant Medical Officer to the Borough Lunatic Asylum, Newcastle-upon-Tyne.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

MARRIAGE.

CLARKE, P. J., Esq., Surgeon-Major 84th Regiment, to Mary E., second daughter of the late John TOBIN, Esq., Halifax, Nova Scotia, in Dublin, on February 7th.

DEATH.

LIPSCOMB.—On January 28th, aged 72, Elizabeth Sarah, widow of the late John Thomas Lipscomb, Esq., Surgeon, of St. Alban's.

DONATION.—S. W. Y. has, for the third time, kindly sent £1000 to the exchequer of the Great Northern Hospital this week, and the Worshipful Company of Clothworkers, £52 : 10.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.
WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.
THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.
SATURDAY St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. Barnes, "A Case of Fatal Haemorrhage from Fibroid Polypus of the Uterus"; Dr. Semple, "On Diphtheria, and the Diseases allied to it or mistaken for it."
TUESDAY.—Royal Medical and Chirurgical Society, 8 P.M., Ballot, 8.30 P.M., Mr. Callender, "Cases of Injury to the Brain"; Dr. Bakewell, "Pathology and Treatment of Malarious Fever."—Anthropological Institute of Great Britain and Ireland, 8 P.M.
THURSDAY.—Harveian Society of London, 8 P.M.—Royal Society.—Chemical Society.—Linnæan Society.
SATURDAY.—Association of Medical Officers of Health, 7.30 P.M.

OWING to the pressure on our space, we are compelled to defer the publication of numerous notices and answers to correspondents.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, Jan. 21st; The New York Medical Record, Jan. 26th; The Boston Medical and Surgical Journal, Jan. 26th; The Madras Mail, Nov. 28th; The Shield, Feb. 4th; The Philadelphia Medical Times, Jan. 23rd; The Peterhead Advertiser, Feb. 4th; The Yarmouth Independent, Feb. 4th; The Dublin Evening Post, Jan. 31st; The Sunderland and Durham County Herald, Feb. 3rd; The Bath Chronicle, Feb. 2nd; The Preston Guardian, Jan. 25th; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Sir Thomas Watson, Bart., London; Dr. T. K. Chambers, London; Dr. Hughes Bennett, Edinburgh; Mr. Erasmus Wilson, London; Professor Maclean, Netley; Dr. A. P. Stewart, London; Mr. Lyell, London; Mr. Cross, London; Dr. George Brown, Colchester; Dr. W. M. Mackenzie, Kelso; Mr. Hardwicke, London; Cantab.; Dr. Shettle, Reading; Dr. Forsyth, Culmore; Dr. Whitmore, London; Mr. Pinder, London; Dr. Grimshaw, Dublin; Mr. Berkeley Hill, London; Mr. W. Draper, York; Mr. Gregson, London; The Secretary of the Epidemiological Society; The Surgical Registrar of the London Hospital; Mr. Armstrong, South Shields; Mr. H. Walmsley, Preston; Mr. John Pennefather, London; Mr. Griffith, Wrexham; Dr. Tilbury Fox, London; Dr. Thomas Jones, London; Mr. Whitfield, London; Mr. S. S. Noakes, London; Mr. J. Davies Thomas, London; Mr. Sydenham J. Knatt, London; Dr. Stephen Mackenzie, London; Dr. W. Ogle, Derby; Mr. Pennington, jun., Liverpool; Dr. Fothergill, Leeds; Dr. W. Murray, Newcastle-upon-Tyne; Dr. Procter, York; Dr. Fitzgibbon, Quay, Clonmel; Mr. J. T. Evans, Sheffield; Mr. T. Bell, Uppingham; Mr. C. Marsh, Shrewsbury; Dr. Andrews, London; Mr. Coates, Devonport; Dr. Robertson, Glasgow; Dr. Shapter, Exeter; Mr. Heath, Manchester; Dr. Diver, Caterham; Mr. Wesley, London; Dr. Cameron, Liverpool; Mr. Goodwin, Ashbourne; Mr. Rudge, Bristol; Mr. J. Hinton, Warminster; Mr. J. P. Badley, Dudley; Dr. Halley, London; Dr. Wolfe, Glasgow; Mr. G. F. Hodgson, Brighton; Mr. J. B. Carter, Chapel Allerton, Leeds; Dr. Bowstead, High Wycombe; Dr. Duke, Rugby; Dr. Joseph Bell, Edinburgh; Mr. Nettleship, London; The Rev. Dr. Haughton, Dublin; Dr. Styrap, Shrewsbury; Dr. Kidd, London; Professor Tyndall, London; Mr. T. A. Henderson, Ramsgate; Dr. M. H. Taylor, Glasgow; Mr. W. P. Brookes, Much Wenlock; Mr. W. H. Elmes, Pinston; Mr. F. C. Mudd, Uckfield; Mr. de Méric, London; Mr. Reginald Harrison, Liverpool; Mr. St. George Miyart, London; Mr. Benson Baker, London; A Student, London; Mr. Pope, Cleobury Mortimer; Mr. Anderson, London; etc.

LETTERS, ETC. (with enclosures), from:—

Dr. Handfield Jones, London; Mr. W. Whitehead, Manchester; Dr. J. Crichton Browne, Wakefield; Dr. Lietch, Derwent Bank, Keswick; Dr. Campbell Black, Glasgow; Dr. Paul, London; Dr. A. Sheen, Cardiff; Dr. Craister, Bramley; Dr. Ritchie, Edinburgh; Mr. Jessop, Leeds; Mr. Burnham, Keelby, Ulceby; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Our Glasgow Correspondent; Mr. Manisty, Gresford; Messrs. Burnett and Hood, Middlesbrough; Dr. Gwynn, Whitchurch; Our Liverpool Correspondent; Mr. T. Watkin Williams, Birmingham; Our Dublin Correspondent; Mr. Jonathan Hutchinson, London; Dr. T. Clifford Allbutt, Leeds; Dr. Sieveking, London; Dr. L. O. Fox, Broughton; Dr. Drysdale, London; Mr. Erichsen, London; Mr. Hulke, London; Mr. Wagstaffe, London; The Secretary of the Obstetrical Society; The Secretary of the Royal Medical and Chirurgical Society; The Secretary of the Clinical Society; Dr. Cotton, London; Dr. T. Lyle, Newcastle-upon-Tyne; Dr. Payne, London; etc.

THE HUNTERIAN ORATION

FOR 1871.

*Delivered at the Royal College of Surgeons of England,
February 14th, 1871.*BY SIR WILLIAM FERGUSSON, BART., F.R.S.,
President of the College, and Serjeant-Surgeon to the Queen.

MR. PRESIDENT AND GENTLEMEN,—We are met to commemorate the hundred and forty-second anniversary of the natal day of John Hunter.

Although Hunter's death, which occurred in 1793, was lamented, owing to its tragic character, and the prominent position he held as a surgeon and man of science, there was a somewhat tardy recognition of those great qualities for which he has been subsequently eulogised. There were varied opinions among his contemporaries and survivors; and, for seven years afterwards, it seemed doubtful what might become of the palpable remains of his life-long labours in science and surgery. The chief of these, his museum and manuscripts, were in confusion; and there was great danger that they might be so scattered and subdivided that the grand objects of his researches might never have been comprehended. Happily, through the sound judgment of his executors, and the enthusiasm of an apprentice boy, William Clift, the precious relics were held together until purchased as a whole by the Government, and finally placed under the care of this College. In the year 1800 the collection first came under the protection of the Royal College of Surgeons. The proved abilities of young Clift were still devoted to its service; but considerable time elapsed before it acquired more than a beginning to the great reputation subsequently attached to it.

The absence of proper catalogues seems to have been much felt. Hunter had delayed this part of his work, doubtless trusting to leisure time in later years. A gentleman, who might be considered equal to Clift himself in knowledge of the contents and characters of both, undertook the duty, and for that purpose had the manuscripts removed, for convenience, to his own residence. A cartload—literally a cartload—of these was taken possession of, but never again saw the light of day. Years rolled on; trustees, Council, and Mr. Clift alike failed to regain possession of the papers, or of the semblance of a catalogue. At last, in 1823, it was announced that these papers had been committed to the flames! It was not until 1813, and after much expense, towards which Parliament liberally contributed, that the Museum was open for public inspection.

Catalogues have been prepared under most proficient skill; the Council has spared neither pains nor expense to enhance its character; and at this date it is indisputably the finest of its kind in the world. The progress of increase seems never to cease; year after year large acquisitions are made by purchase and from donations; and since we last met on an occasion like the present, a collection specially illustrative of dermatology has been added, by the munificence of a member of our Council, which augments in a remarkable degree the value of the whole.

About twenty years after Hunter's death, two of his connexions and most distinguished pupils, Dr. Matthew Baillie and Sir Everard Home, made arrangements for the permanent commemoration of his birthday, and since the year 1813 a ceremony like the present has, with few intermissions, taken place. A member of the Council of this College is required by the terms of the deed of arrangement to pay tribute to Hunter's memory, and to make passing record of recently deceased members of our profession, whose deeds in life may have had association with the works in which Hunter himself had been interested.

Seventy-seven years have elapsed since the death of Hunter, and his memory is at this date cherished in a greater degree than it was sixty, or even forty, years ago. In the progress of time his works have become more and more appreciated, and with all familiar with them the impression increases in force, that he has left indications of industry and intellect such as have rarely been associated in one individual. In addition to his great Museum, portions of his writings have carried his reputation far beyond the sphere in which that collection is placed, and it is interesting to consider on which his future fame will most depend.

It was specially characteristic in Hunter so to associate the labours of head and hand that it may with many be difficult to determine in

which he most excelled. A glance at his museum fills the mind with wonder that it should have been the work of one man. The few volumes of his collected writings seem small in proportion; but before coming to a conclusion, the contents of each volume, the quality and original thought contained in that small compass, should be well considered; and if, in addition, the enormous quantity of manuscript which he left be taken into the estimate, hesitation may arise in deciding as to the field in which his labour was greatest. The proofs on behalf of his pen, now extant, are small in comparison with the mass of papers unhappily destroyed, including the famous ten folio volumes so much lamented by Mr. Clift. When that gentleman was examined on the subject in 1834, by a Committee of the House of Commons, he enumerated a list of papers and treatises, so extensive in number, and so rare and original in quality, that apparently there had been destroyed much more than enough to have founded an imperishable name and reputation in science and natural history.

It has been rare amongst physicians and surgeons, considering the numbers of eminence who have flourished, to leave long-standing memorials of their greatness. Their works of skill and art have perished with themselves in a generation. Great statesmen, architects, engineers, and painters have left enduring palpable proofs of their qualities, and they are known to fame almost solely by such proofs. No writings remain to attest their scientific skill, or to diffuse their individual knowledge to mankind.

It would be too much to expect at this date palpable memorials, such as I refer to, of Hippocrates or Galen; but to come to more recent times, since the study of anatomy has been zealously pursued, how small is the number of great men in our profession whose fame can be traced otherwise than in association with written works. History is quiet regarding any preparations left by Mundinus, the founder of systematic anatomical teaching. No evidence remains of the hand-labour of Vesalius, Albinus, Cheselden, Cowper, and a host of the bygone great. Only a few proofs of William Harvey's dealings in anatomy are preserved in the College of Physicians of London. Happily, the greater part of Ruysch's celebrated first collections is still, I believe, in good condition in St. Petersburg.

The industry of Ruysch as anatomist and writer was marvellous; but our English anatomist had a shorter life by a quarter of a century; and, all things considered, there has probably been no such combination of work in one man as that centred in John Hunter. There may have been more voluminous writers in so far as printed works attest, but the untoward fate of his manuscripts must be borne in mind. In respect of work, in the development of a great museum, it may be fairly said that he stands unequalled; and in the combined qualities of writer and practical anatomist, he is alone in a field where a competitor cannot be named.

It is not, however, in mere industry that Hunter's position is to be estimated. There was an originality of thought and action in all that he did which put him far above the rank of ordinary men in his own department of science. His Museum was not a rambling collection of curiosities in natural history, anatomy, and pathology. It was specially designed to illustrate his own favourite pursuits: the study of life in all its phases; its causes, nature, and development, from the lowest stage of organisation up to the complex structure of man—from the seeds of vegetables to the eggs of animals—from vegetable sap up to human blood and its products.

An anecdote related by Sir Benjamin Brodie in the Hunterian Oration for 1837 is indicative of Hunter's originality and scope of observation. Sir Benjamin says: "When I was formerly giving lectures as professor of this College, I found in a drawer in the Museum what appeared to be some pieces of dried sticks. Mr. Clift said that he did not know what they meant, but he was sure that they meant something, and therefore he had preserved them. When I examined them, I found that they were the result of some interesting experiments in vegetable physiology. It appeared from one of them that he had made the first and most important of the experiments made many years afterwards by Mr. Andrew Knight, proving the descent of the sap through the vessels of the bark. Yet these specimens had no ostensible place in the Museum, and they would have been swept away as rubbish but for the care of Mr. Clift."

Many illustrations of a like kind might be collected to show how Hunter was ahead of his time; and the conviction is strong that, had his manuscripts been preserved, the value and originality of his museum labours would have been greatly enhanced.

Happily for the character of Hunter and his Museum, the silent testimonies of many of his labours have been admirably deciphered by those who have had the principal care of the preparations. It was, indeed, fortunate that Clift should have devoted his life-labour on behalf of his master's works and fame. Equally fortunate was it that such a man

as Owen should have appeared on the scene so opportunely. Nor should the zeal, talent, and industry of Stanley, Quekett, Paget, Morris, Taylor, Wilson, and others be forgotten in association with Hunter's Museum. To all these gentlemen is chiefly due the merit of those compendious catalogues which throw so much light on Hunter's works and thoughts. It is, in addition, gratifying that the collection is at present under the curatorship of one distinguished alike as anatomist, surgeon, and naturalist, whose work already done gives anticipation of a glorious further career, that shall place his name in association with the Hunters and Cuviers of bygone years.

Few have thought seriously of the time, labour, and expense of developing museums in association with our profession. It seems doubtful if there was any collection in this country worth speaking of prior to the time of the two Hunters. All the senior part of my professional hearers must remember how, in their earlier days, there was a kind of fashion in regard to the formation of museums. Everyone who devoted himself to teaching anatomy, medicine, or midwifery, set his heart upon such work, and some may have lively and possibly peculiar feelings in regard to the labour, time, and money expended. Happily, by the modern system of aggregation of teachers into schools, such custom has fallen into abeyance. Instead of individual exertion, the effort is made by the whole school, and wealth in this way, pecuniary and scientific, has gradually been accumulated, which only the Hunters could have appreciated.

It is said that William Hunter's collection, now belonging to the University of Glasgow, was made at the cost of one hundred thousand pounds. John Hunter's is said to have cost seventy thousand. Through the apathy of a British Minister, who thought that shot and shell were, at the time, of more value to the country than anatomical and pathological specimens, the collection of William Hunter was refused a home in the locality where it had been made. At a subsequent date better feeling prevailed in regard to the younger brother's great works. The purchase-money paid by Government was small compared with the original outlay; but Parliament has again and again responded liberally to appeals for pecuniary aid to extend the buildings for the accommodation of the Museum; and the Royal College of Surgeons of England, dependent solely upon its popularity with the profession and the public, has been enabled so to cherish the original collection of Hunter, so to add to it, and so to associate it with accessories and adjuncts, particularly with a magnificent library, that it is displayed in its present magnitude at a cost of a quarter of a million sterling. This grand possession may be said to be the property of the surgical profession and of the public of England. The trustees, and the Council of this College, are its guardians appointed by law. It is freely open, under reasonable regulations, to all comers, of all quality; and an enthusiast might say, with truth, that it is the heart and soul of British surgery.

Without discussing minutely whether Hunter's future fame will depend chiefly on his Museum or on his printed works, it may be admitted that he is most extensively known by the latter. It is the lot of few, comparatively, to have it in their power to visit the Museum, but his writings extend over the earth, and his doctrines may be said to constitute a large portion of the science of the best practical surgery of the day.

There are mysteries in nature which Hunter did not pretend to explain; and it might be well if some modern philosophers held in mind that the result of life-long study should not be disturbed by the passing idea of a moment, or by the reckless ambition of upsetting or ignoring doctrines emanating from a brain wherein thought had, for more than forty years, assumed a favourite place.

Of all Hunter's printed works, the treatise on the Blood and Inflammation is generally admitted to be the most profound. To my mind, there are no parts so replete with interest as those devoted to Development and Absorption. Yet these, if not forgotten, have been well-nigh smothered in modern verbiage. Separate centres of life, new formations and growths, arrestments and changes of action, irrespective of blood and circulation, are among the fashionable doctrines of the day. "Molecular disintegration" now takes the place of Hunter's "disjunctive absorption." Crude statements about veins doing what Hunter described as being done by absorbents—doing what he positively showed by experiment that they could not; about pus circulating in the blood; about secondary deposits (as they are called) being the direct result of primary deposits,—ignoring the power of nature to make another, and yet another, deposit when she has already made one; rough experiments which have no semblance to nature's actions; modern methods of accounting for malignant disease in various distant parts of the body, as being secondary deposits; are among the recent ways of tampering with the beautiful and philosophic views of Hunter.

A great living philosopher, one who is specially great in facts, has suggested that when the microscope fails to detect the elementary par-

ticle, imagination may legitimately be permitted to bridge the gap, and mentally extend our vision. But such philosophy is, after all, far from being new. Shakespeare speculated with imaginary histology. He makes Hamlet, at a prior date, deal with it, as thus:—"Why may not imagination trace the noble dust of Alexander till he find it stopping a bung-hole?" Or, again,—

"Imperial Cæsar, dead and turned to clay,
Might stop a hole to keep the wind away."

If imagination is to be a future legitimate course in this direction, let us imagine something more noble for the "dust" of our hero than the "base uses" to which that of Alexander, or of Cæsar, was consigned by Hamlet.

If I have thus, in good humour, and, I hope without offence, ventured to question the superiority of certain modern doctrines over those of Hunter, yet I do not fail to bear in mind how little will occasionally arrest or turn aside the tide of events in our profession. The current is naturally slow and easily obstructed. More than half a century elapsed ere Davy's suggestion regarding anæsthesia in surgical operations was carried into effect. The progress of ovariotomy was retarded for full thirty years by a simple song of local and personal humour. Who can say what may have been the influence of the sarcastic wit of Rabelais, of Butler, and of John Bell on the doctrines of Taliacotius? Du Hamel and John Hunter were the great animal transplanters (if I may so call them) of their days. Here are the celebrated preparations, from Hunter's own hands, of cocks' spurs and human teeth, taken from their natural locality, flourishing in the cock's comb. Death abruptly cut short Hunter's surgical career; but may we not claim for him, with all deference and honour to Reverdin, Pollock, and others of the day, that he anticipated by a hundred years, the scientific data on which the present system of human grafting or transplanting is conducted? Here [pointing to a picture] is a representation of portions of skin, each, originally, not bigger than a pin's-head, taken from what Butler would have called the "brawny" part of a boy's arm, flourishing on an ulcer of the leg of an old lady above sixty! What would John Bell, were he now alive, say to this?

But time warns me that I have still other duties to perform within the hour, when my allotted task must be accomplished.

The grave has recently closed over the mortal remains of James Wardrop, Sir William Lawrence, Joseph Hodgson, Sir James Young Simpson, and James Syme. It has seldom happened that so many distinguished men have had claims for notice on occasions similar to this.

James Wardrop possessed great natural abilities, and was an original thinker and actor. His essays "On the Morbid Anatomy of the Human Eye" were much esteemed in their time, and his "Observations on Fungus Hæmatodes," published at an early period of his career, forms to this day the standard work, I may say the only one, on the subject worthy of special note. Some of his published didactic lectures were models of power and simplicity, and his last great work, "On Diseases of the Heart," evinced the sagacity acquired by experience and age—a simplicity of practice, and a reliance on nature, which might be expected from a Hunterian disciple. The fact that he was the first surgeon in England who, after the example of Dupuytren, removed a tumour in the lower jaw by total vertical section of the bone, places his name on the list of high-class practical surgeons; and his modification of Brasdor's operation, his original distal operations, and the effect that all have had on this department of practice, bring his name in association with Hunter's as closely as that of any other in the history of British surgery.

Of Sir William Lawrence it seems almost a work of supererogation to speak in this theatre. His intellectual head and brow, expressive features, and manly form, can never pass from the remembrance of those who saw him in his prime. A pupil of Abernethy, and an admirer of Hunter greater than his master, if that were possible, he, of all English surgeons, excelled the most in developing the labours of Hunter in comparative anatomy. The currency which he gave in England to the works of Blumenbach; the taste, eloquence, and ability with which he inculcated the study of comparative anatomy—a subject little more than in its infancy in Lawrence's early days; his mental capacity as anatomist, scholar, and orator; his polemical energy in supporting his favourite views, whether these were scientific or medico-political, marked him in early years as one of the foremost men of the day in the walk of life which he had chosen. He rose, as we all know, to the highest honours to which a surgeon can aspire in this country; but it has often been said, and assented to, that, had he been a member of another profession, he might have risen to the highest rank which a subject in England can reach. His treatise "On Hernia," originally a Jacksonian prize essay, may be considered as the first compendious work on this most important subject which ever came from British surgery; and, although published more than sixty years ago, may, in its fifth edition, be considered the standard of reference at the present day. His treatises "On Diseases

of the Eye" gave him great and well-grounded reputation in ophthalmic surgery. His "Introduction to Comparative Anatomy and Physiology," and his "Lectures on Physiology, Zoology, and the Natural History of Man," added largely to his fame in early life. His position as surgeon to the greatest of English hospitals with which our profession is in alliance, his acquirements, his oratorical powers, his repute with the profession and public at large, all made him a man of great note. It gives me much pleasure to state that, on some familiarity with the Hunterian orations that have been delivered in this theatre, the two specially devoted to the subject by Lawrence seem to me among the most eloquent which the occasion has ever called forth.

Joseph Hodgson received a considerable part of his education under Abernethy and Lawrence. He distinguished himself in early life by his treatise on the Diseases of the Arteries and Veins, containing the pathology and treatment of aneurisms and wounded arteries. The work, which in its first stage had secured the Jacksonian prize, was more elaborate than any that had appeared since the Hunterian doctrines on the subject had been recognised and approved. It was comprehensive and practical. The language and composition simple and easily understood. It was much esteemed at the time, having been translated into German and French; and it forms a worthy companion to the first-class treatises on surgical subjects which have come from many of his contemporaries—such as Scarpa, Astley Cooper, Charles Bell, Brodie, Samuel Cooper, Travers, Colles, Guthrie, Porter, and numerous others. Mr. Hodgson commenced professional life in London, but soon after was induced to settle in Birmingham. In the extensive opportunities afforded for practice in that populous town and surrounding district, he acquired the esteem and confidence of the public and his professional brethren; and for many years no man among the surgeons of Britain was held in greater respect. After a most successful career, he withdrew from the scene of his active labours, and settled in London in dignified retirement. His mind still clung with fondness to the subjects with which it had been most engrossed, and for years his opinion was eagerly sought by his admirers in the profession and among the public. So highly was he esteemed by the Fellows of this College that he was elected to a seat at the Council Board, and in due time placed by that Board on the Court of Examiners. It must be in the recollection of many here how zealously, honestly, and ably he performed all the varied and often most onerous duties pertaining to such distinctions, and also how gracefully he filled the presidential chair before finally retiring from public life. It was his fortune to be a Hunterian orator. Few others more clearly and zealously appreciated the Hunterian philosophy; and it was a pleasing combination of circumstances which finally brought him out in that character, after he had been long recognised as the chief authority on the operation with which Hunter's name is indelibly associated.

The name of Sir James Young Simpson is deeply impressed on the history of medicine and surgery. His example is one among many in our profession, as well as in others, of what may be called a self-made man. Possessing even fewer advantages than most beginners in life, his individual industry made up the deficiencies. He rarely, if ever, neglected an opportunity of acquiring knowledge. He worked in schoolboy days whilst others played. In early professional life he attracted the notice of Dr. John Thompson, the able expounder of Hunter on Inflammation, and was selected by that distinguished man as a special assistant. The scientific atmosphere in which Thompson lived must have had great influence on Simpson's youthful, I may say latent, talent. The connexion, I have no doubt, went far to favour his claim for the chair of Midwifery in Edinburgh. Once fairly fixed in that position, it became the stand-point whence emanated all his subsequent multifarious and brilliant intellectual work. In his own special department I do not presume to be a judge, but I imagine that since the days of Smellie, William Hunter, and Denman, he has never been surpassed. In scholarship, in antiquarian lore, and in extent of practice he has had few equals in our profession; and rarely have men earned such distinction as he did out of their ordinary walk in life. The zeal with which he investigated any subject, professional or otherwise, was unbounded, and it has been, I venture to say, fortunate for modern anæsthesia that Simpson lived. Whilst recognising his remarkable discovery and development of the peculiar influence of chloroform, it may in after time be questioned whether he does not deserve equal if not greater credit for the persistence with which he advocated anæsthesia in woman's most trying hour. Sulphuric ether is still by many thought equal if not superior to chloroform, and other agents are in high repute in surgery and dentistry; but Simpson's practical vigour in anæsthesia has never been surpassed, and his name must always remain associated with one of the most remarkable discoveries connected with our profession. Although Simpson's path was more as a physician than a surgeon, he had remarkable proclivities for surgery.

These were evinced in every imaginable way in his own special department, but chiefly in his discovery, as I may call it, of acupressure, and the remarkable zeal with which he recommended this mode of closing divided arteries. His forensic powers in advocating the advantages of this practice have never, I imagine, been sufficiently appreciated. His abuse of the ligature would have gratified Paré's most violent enemies, and his modern artillery, consisting in suppuration, absorption, blood-poisoning, pyæmia, and secondary deposits might, if used in former times, have blown the doctrines of the great Ambrose into thin air. It was in association with this subject that his powers as a special pleader were remarkably displayed; for here he revived and made to appear in a new and original aspect, under the name of surgical fever, all those doctrines regarding symptomatic, sympathetic, or inflammatory fever, which had been in a manner originated by John Hunter, and elaborated by Thompson, Travers, and others. Yet in regard to these matters, we must claim Simpson as a genuine disciple of Hunter. His object was to further adhesion by the first intention, and to avert constitutional irritation. He entertained the idea that needles were less of foreign material, less offensive to nature, than ligatures. This is neither the time nor opportunity to discuss these interesting matters in association with surgery or Simpson's memory, but I cannot resist the opportunity of paying my humble tribute of personal commemoration to one who, in the combined character of physiologist, archæologist, obstetric physician and surgeon, and the giver of the greatest possible good to the greatest possible number, has perhaps never had an equal.

My last tribute in this way shall be in memory of James Syme. Like most who have specially distinguished themselves in surgery, Mr. Syme began his brilliant professional career as a teacher of anatomy. His destiny, however, had been surgery, and he soon relinquished the scalpel of the anatomist for the knife of the surgeon. His success in his newly-assumed duties was remarkable. His zeal, earnestness, and ability were speedily recognised; and although at this time he was comparatively quiet, modest, and of retiring habits, he gained hosts of admirers and friends, who foresaw in him the future chief of surgery in Scotland. He had to work his way, I may say stand his ground, in a department already occupied by distinguished teachers—Allan, Turner, Liston, and Lizars; yet the numbers of his pupils speedily became nearly as large as those of the whole of his contemporaries. At this period, before taking office in the Royal Infirmary, he, almost on his single responsibility, instituted a small surgical hospital, which he managed in all its departments with prudence and indomitable energy. Cases of special interest were sent to him from all parts of Scotland, which enabled him to display that great diagnostic power, clear judgment, rare manual dexterity, skill in design, and surgical courage, for all of which he afterwards became so distinguished. It was here also that he speedily evinced those remarkable qualities which made him the ablest clinical teacher of surgery of the day. I remember well the effects of his labours on his immediate pupils. He was their prophet in surgery, and inspired them with entire confidence in his powers. The great tact which he had in making a trivial case in surgery appear almost as interesting as one of the most complicated, was remarkable. Although in reality he had a keen relish for all the great things in surgery, he could clothe the story of a carbuncle or a whitlow with the romance of a diseased elbow—a theme rendered at that time, through his individual exertions, of surpassing interest. The migration of Liston to London left Syme on the well-won throne of practical surgery in Edinburgh and Scotland; and how he held sway, and increased his renown, is well known to all who have watched our schools during the last thirty or forty years. There is scarcely a subject in surgery which he has not touched, and thereby adorned. Besides his standard works "On the Principles of Surgery," "On Excision of Diseased Joints," "On Diseases of the Rectum," "On the Pathology and Practice of Surgery," and his remarkable paper on Stricture of the Urethra and Perineal Section, he has written more voluminously in the shape of isolated papers on surgical subjects than any practical man that could readily, perhaps possibly, be named. His operations on the jaws when they were little known in Britain, his revival of excision of the elbow, his special amputation at the ankle-joint, his ingenious plastic operations on the face, his operations on the great arteries for aneurism (on Hunterian principles, and notably on the old principle), and his bold removals of the entire upper extremity, will indelibly associate his name with the grandest deeds in practical surgery with which we are acquainted. Mr. Syme was in every sense an accomplished surgeon. His preliminary education was good; he had knowledge and skill in modern languages, and inborn taste for science and natural history, which he cherished throughout life. But a passion for surgery seemed to dominate in his temperament. Happy for himself that it was so, for it may be justly said that he was king among his fellows; and happy it has been for surgery that such a

man should have devoted his great abilities to the embellishment of that department of art and science in which the disciples of John Hunter are so deeply interested.

Such themes are apt to attract too much attention from one in my present position. It must be admitted, however, that they were at least the second object of the founders of this ceremony.

Before making my bow of conclusion I shall revert to the memory of the great man in whose honour we are assembled. In as far as we can make out, his life was happy as it was brilliant, and peculiarly so in that he was enabled, without hindrance, to indulge to a greater extent than most men ever did, in a natural, useful bias of mind. His professional gains were estimated by himself chiefly in proportion as they enabled him to pursue his studies and increase his accumulations in natural history; and he gratified his desires in this way to an extent as fabulous as any history records. Men have given thousands for single pictures, or objects of art; but who, excepting John Hunter, enthusiast above all other anatomists, ever paid five hundred pounds for a human skeleton? That his pursuits were more pleasurable to him than any other work in the world must be undoubted. Look at the results. He, in the course of years, and at the age of sixty-five, accumulated a treasury of facts in his Museum and writings, which, from the time of his death to the present day, may be said to have been the fountain-head of modern science in our profession. The streams from thence have flowed in largely varied directions, and no man yet can span the course they may take! Truly his example may excite to emulation. Even the length we may lag behind should induce us to think more highly of the lofty pinnacle where he stands, alone among surgeons! The question between genius and industry is not worth discussion in his case. That he had industry no one can dispute; he has left evidence of it unparalleled among surgeons. I am a firm believer in his genius, but am of opinion that it was so tempered, so overspread, with the spirit of industry, that there was the just balance, so rarely combined in one man, which gives him a pre-eminence among mortals, and a rank in place with the greatest of human beings. He was born, the tenth child of his parents, in a modest country house in Scotland. He seems to have led the idle life of a wayward, petted boy, until twenty years of age, when his action changed, and the dawn of his future greatness appeared. He had neither wealth nor influential friends to further his worldly prospects, yet he rose to be the foremost surgeon and physiologist of his day. He read nature more closely than most other men, and thereby came nearer into communion with the Divine Author of all. Parts of the proof of his physical labour are treasured within these walls; portions of his mental labour are, in printed form, the property of the world at large; his mortal remains rest beside those of many of England's greatest sons within the hallowed shrine of Westminster Abbey.

Such is, in brief, the story of John Hunter!

CLINICAL MEMORANDA.

SCALPED BY BURNING.

THE case of destruction of the scalp and exfoliation of the outer table of the skull alluded to by Dr. Lowe in the JOURNAL of the 7th Jan., although most interesting, is, I think, completely thrown into the shade by the following case which came under my notice in 1858 when I was practising in Upper Canada. On the 29th October, 1857, an Irish-woman, aged 50, fell forwards into the fire in an epileptic fit; and, no one coming to her rescue, she remained exposed to the flames till her face and neck were severely injured, and the frontal and parietal bones almost denuded of flesh. My partner, Dr. Salmon, attended her till the severer effects of the accident had become mitigated; I did not see the case myself till ten months had elapsed, and a more horrible disfigurement of the human form I never had witnessed. Large sloughs had come away, leaving the whole calvarium bare and as dead looking as an exhumed skull. Surrounding this extensive surface of denuded skull was the free margin of the uninjured integument of the head, forming a halo of clean and healthy-looking granulations. The much-to-be-dreaded cicatrix—the result of the injury to the chest and neck by the flames—had drawn the chin down to the upper part of the sternum by innumerable fleshy bands. Ectropion of the upper lid, the result of a cicatrix in the integument over the eye, exposed to view that organ itself much injured by the fire; and only sufficient skin was left upon the poor creature's forehead to mark the region of the supercilia. Other scars frightfully marred her form and visage. Mutilated as she was, the poor woman appeared in excellent health and spirits—bright, cheerful, and happy. Upon examining her head, I found that Nature was using her utmost endeavours to throw off the dead bony shell which had so long been deprived of its nutriment and protection. On August 15th, 1858, whilst using the mild stimulating lotion

which I had ordered, she felt the bone move, and, using a little more additional force, succeeded in lifting off the whole top of her head. I shall not forget my astonishment upon calling to see my Irish patient a few mornings afterwards, when I saw her reach down from the chimney-piece the large piece of exfoliated bone. Her head was done up Turk fashion, in a turban of well greased cloths, upon removing which I exposed an enormous fleshy-looking pulsating tumour, which proved to be the cerebrum covered with its investing membranes. She appeared to suffer little or no pain, and, when I called, was busily employed in knitting stockings. I had to exert all my persuasive powers to get possession of the bone, so convinced was she that, if she once allowed it out of her sight, her head would never heal up. It measured five inches and three-quarter in its longitudinal and four inches and a half in its transverse diameter. Its internal surface exhibited patches of the inner table of the skull, but the greater portion was exposed diploë. At the earnest request of Dr. Lizars, of Toronto, I presented it to the Pathological Museum in that city, where it may now be seen. Before parting with it, I had it photographed and some engravings taken, which I have now in my possession. I kept my eye upon the patient for several years afterwards, and used frequently to meet her walking into market, a distance of four miles, under the burning rays of the summer sun—in fact, she appeared to suffer little or no inconvenience from her severe loss of personal property. The dura mater seemed to be thickened; otherwise she had, when last I saw her, no other protection to her brain.

In operating upon cicatrices from burns, I found the only plan to adopt to prevent the inevitable drawing together of the parts was to fasten a piece of worsted thread round the limb against the inner part of the wound. This seemed to act as a barrier, over which the granulations would not pass. It kept up irritation all the time in the part.

HARVEY J. PHILPOT, M.D. (Toronto), M.R.C.S.L.,
late Staff Assist.-Surg. to H.M. Forces in the Crimea.

BROW-AGUE.

WHAT is brow-ague? A pain in one supraorbital region, recurring periodically, passing away completely, curable by large doses of quinine, might, I suppose, be so designated. Although this pain occurs suspiciously near a well-known nerve-trunk, yet it is, I think, clear that it has but little to do with the supraorbital nerve. If this nerve were neuralgic, the pain should be in its peripheral distribution—that is, on the scalp; whilst it is usually limited to the brow. Then the pain is often under the brow as well as over it. Brow-ague, according to my experience (in part personal), begins as a peculiar and very disagreeable sensation of twisting just beneath the inner third of the eyebrow. It is at first restricted to a patch of the size of a sixpence. Then the pain spreads, and all the brow becomes painful and tender. If the finger be pressed upwards under the orbital roof, it will be found that it also is tender. The pain does not dart upwards into the scalp, or, at any rate, not far. It is much increased by sudden movement of the head, and throbs if the head be held down. Although the periosteum of the affected part certainly seems tender on pressure, yet continued pressure, as is well known, relieves the pain. One cannot, by pressure on the supraorbital nerve-trunk itself, produce pain in the scalp; increase of the local tenderness only is caused. Sometimes there is, I am sure, slight swelling of the affected part. The case from which I describe these symptoms was well characterised. The pain used to begin every morning about nine, last through the day, and quite pass off in the evening. It appeared to be connected with derangement of the stomach and liver, and was finally cured by purgatives and quinine. It occurred, however, in a patient who suffers from transitory attacks of joint-rheumatism, and who inherits tendency both to gout and rheumatism. The phenomena produced seem to me more like local persistent pain induced by nerves than a pure neuralgia.

JONATHAN HUTCHINSON, F.R.C.S., Surgeon to the
London Hospital.

THE LIVERPOOL MEDICAL MISSIONARY SOCIETY held its seventh annual meeting on January 30th. A dispensary, in addition to the one already existing, has been opened in a new locality during the past year. The cases, including new and old, seen and prescribed for at both dispensaries during 1870, amounted to 72,291; and the visits paid to the sick poor at their houses were 11,210. Various subsidiary works of benevolence have also been carried on in connection with the dispensary; and a suitable person, combining the offices of Bible-woman and nurse for the sick, has been appointed, and her services have proved of much value. The funds of the society have been sufficient to meet all expenses, so that a new year is entered upon free from debt.

LECTURES ON DERMATOLOGY.

DELIVERED AT

The Royal College of Surgeons of England.

BY ERASMUS WILSON, F.R.S.,
Professor of Dermatology in the College.

LECTURE I.

[The course for the Session 1871 was commenced in the Theatre of the College on the 30th of January; and the lectures were amply illustrated with models, preparations, and strikingly effective drawings. The inaugural course of the previous year had been devoted to a synoptical survey of the whole subject of the pathology of the skin; the present was confined to the examination and demonstration of the objects composing the dermatological collection of the College Museum, together with a consideration of the principles of therapeutical management of cutaneous diseases. The dermatological collection contains 513 objects, and these have been arranged in the most convenient order to facilitate their study, and at the same time to conform to the recognised divisions of physiology and pathology.]

THE subject taking precedence of all the rest is common inflammation; and then follow in succession diseases resulting from blood-poisons and diathesis; diseases of the functions of nutrition, innervation, and pigmentation; diseases of the epidermis and nails, and, lastly, diseases of the hair, the sebiparous system, and the sudoriparous system. In this way, seven primary groups or classes are formed; and these admit of a subsequent division into nineteen sub-groups: thus, diseases of common inflammation include eczematous, erythematous, phlyctenous, furunculous and traumatic affections; the diseases dependent on blood-poisons are the exanthematous, syphilous and elephantous affections; diseases of diathesis are represented by the leprosy, strumous, and carcinomatous affections; the diseases of function are the trophopathic, neuropathic and chromatopathic affections; the diseases of the epithelium comprise the epidermic and onychopathic affections; diseases of the hair-system, the trichopathic affections; and diseases of the gland-system, the steatopathic and idrotopathic affections.

First in the classification, and first, also, among affections of the skin, is the disease *eczema*. The word is less ancient than many of our pathological terms, and bears in its meaning the impress of the humoral doctrines of earlier times. It signifies a "boiling out", and, as Aëtius ingeniously explains, conveys the idea of an inward heat, which drives off the humours of the body from its surface like the seething of a boiling fluid; and although we no longer recognise the humoral doctrines, nor the expulsion of the humours of the body through the skin by an inward heat, we are nevertheless forcibly struck with the cogency of the expression when we see the minute vesicular bubbles which sometimes cover the surface of an eczema, the copious exudation sometimes welling forth from its surface, and hear the sharp complaints of our patients against the burning and scalding pains by which it is accompanied. More ancient observers seem to have been impressed with the intense itching which is common to eczema, and to have called it in consequence *psora*, from the Greek word signifying "to rub"; so that, in the mere nomenclature of the affection, we have delineated a fair picture of the disease; that is, of a disorder which is hot, burning, scalding, often exuding in vesicles, or by a copious oozing from the inflamed surface, and for the most part pruritic or itchy to a greater or less degree.

If we set ourselves the task of defining eczema, we should call it an inflammation of the skin, attended with a breach of its surface; and a knowledge of the common characters of inflammation will teach us the appearances which the inflammation and the breach of surface are capable of presenting. It is obvious that there will be redness, there will be more or less prominence, there will be displacement of the cuticle, either in the form of vesicles or desquamation, and there will be exudation, and the consequences of exudation in various degrees. One of the most eminent of our modern authorities on dermatology has said very truly—"If you rub a drop of croton oil upon the skin, you have immediately developed a case of eczema." And in like manner, it may be stated, that any irritation of the skin, whether the irritation come from without or from within, is capable of exciting an eczema.

If we turn to the Model No. 1, representing the thigh and leg, we perceive evidences of inflammation dispersed in a peculiar manner over the limb; in one situation there are blotches manifesting a lesion of

considerable extent, and in another the inflammation would seem to be centred in minute points. In the latter case, it is evident that the seat of the inflammation is the cutaneous follicles; in the former, follicles and interfollicular space are blended in one general disorder. There is redness of the affected parts, although but little; there is also slight swelling. In the blotches the redness is seen along the margin of the disease, where it is the forerunner of subsequent changes; while in the follicles the redness appears in the semblance of puncta, and the swelling is more conspicuous, elevating the mouth of the follicle, and producing that form of pathological lesion which is denominated a "papula." If any evidence were needed of the precise seat of the pathological changes present in eczema, it might be found in this model; the papulae are many of them perforated by the hair which issues from the aperture of its follicle, and along the circumference of the blotches the gradual implication of follicles and interfollicular surface is distinctly perceptible. We are also taught by this model the process of extension of the disease—its creeping or erpetic character; for between the two extremes of simply prominent papulae and the larger blotches may be found smaller blotches of intermediate size.

The next observation that may be made in reference to this model is the presence of a thin scab or crust on several of the blotches. The crust is the product of an exudation from the inflamed skin, and if it were removed, we should discover beneath it a raw surface moistened by an ichorous secretion. The secretion of eczema is apt to range in appearance, from simple transparency through the various tints of white and yellow opalescence to the deep yellow hue of pus; and, where any hæmorrhagic tendency exists, whether arising from external injury or from the weakened condition of the tissues, there we may find super-added the colouring principle of the blood, producing shades of different tint, ranging from reddish-brown to almost black. These are the conditions which influence the colour of the crust; while the degree of inspissation of its secretion and the quantity of such secretion will determine its thickness.

A special character of common eczema is the number of lesions present in the skin, hence the terms *eczema polymorphicum* and *multiforme*; but there are certain of its forms which are remarkable for a dimorphic character, comprising nothing more than redness, followed by exfoliation of the cuticle, and to such forms have been assigned the term *eczema erythematousum*. These forms are represented by an interesting series of models in the dermatological collection, in one of which the exfoliation has taken place in circular disks, in another in rings, while a third is remarkable for a desquamation of the entire surface of the integument.

The latter affection has been variously named *dermatitis* and *dermatitis exfoliativa*, but in reality it has every claim to be considered as an *eczema exfoliativum*. It presents the peculiar characters of an inflammation of the skin of the entire body, accompanied with intense redness, and with repeated exfoliations of the whole of the cuticle in shreds or flakes. The shreds and flakes, when seen upon the skin, give it a "fluffy" appearance; some are upwards of two inches in length, while the free edge is half or three-quarters of an inch in breadth. Nothing can be more singular than the appearance of the body marked by these white lines of exfoliating cuticle; the features look as if they were tattooed with graceful and symmetrical undulated curves; and on the trunk and limbs the curves follow the direction of the normal lines of motion of the skin. To the eye of a patient suffering under this curious complaint the long curved lines sweeping around his body and limbs suggested the idea of "ribs," and he spoke of his body as being "ribbed," and the comparison was by no means exaggerated. When these long flakes or exuviae of exfoliating epidermis are broken off, they fill the clothes and bedclothes of the patient, and when in their broken state they are collected together, they resemble the bracts of hops.

The abundance of the epidermic exuviae is so considerable at the height of the disease, that in one of the cases illustrated by the preparations in the museum, the weight of the scales collected from the bed amounted to more than two ounces daily, and in bulk to upwards of a pint; and as the period of active exfoliation was prolonged for upwards of two months, I calculated that during that period the quantity of cuticular exuviae thrown off by the skin could not be less than ten pounds in weight, and more than a bushel in bulk. Devergie, however, gives sanction to a higher computation than this; for, according to him, the quantity of exfoliated cuticle amounted to between two and three litres or quarts in the day, and consequently to between two and three bushels a month. This quality of exfoliation especially attracted the attention of Devergie, and, likening the broken exuviae to the fine scales which are produced in pityriasis, he called the affection *pityriasis rubra*, and Hebra has adopted the same term. But if we search into the intrinsic nature of the disease, and refuse to be content with one only of its symptoms, we shall be nearer the scientific truth if we keep the affection in the family of the *eczemata*.

The Professor concluded his lecture by the narration of a very interesting case of eczema exfoliativum which he had at present under treatment; this case was accompanied with all the symptoms already detailed, and, in addition, with loss of the nails and loss of the hair. The patient was a man of gouty diathesis, and was also the subject of lepra vulgaris.

"IS IT PROPER FOR CONSUMPTIVES TO MARRY?"

By CHARLES J. B. WILLIAMS, M.D., F.R.S.

THIS question is too wide and vague to admit of a direct answer; but it may be usefully debated by those who have had much study and experience in connexion with the subject.

Holding, as I do, that consumption in its widest sense—including not only cases of distinct tuberculosis, but those also of caseous pneumonia and chronic inflammation, which are only different forms and degrees of the same malady—is a disease of degeneration and decay, it can hardly be supposed that I should generally recommend consumptives, with the seeds of decay in them, either to waste their remaining stamina by sexual indulgence, or to incur the risk of unhealthy propagation from their own decaying stock; and yet I have advised many a consumptive to marry, and in numerous instances the result has been happy and fruitful.

For a patient in *confirmed* or *active* consumption to marry, could never be advised by any rational physician, on either physical or moral grounds. Both reason and experience forbid such a step, as fraught with perils and penalties, present and future.

It is different with many of the now numerous class of cases of *arrested* or *limited* disease, in whom the bodily functions are active and vigorous, and in whom there is a probability of life for many years under *favourable* circumstances. Among these favourable circumstances may often be counted the increased social and domestic comforts and the enlivening communion and sympathy of a well assorted and well regulated married life. To those who have not the gift of continence, and whose affections have been already engaged with the hope of marriage, a single life is one of unnatural restraint and disappointment, injurious to health, and likely enough to accelerate disease and decay. To such, a judicious marriage and the moderate exercise of the sexual functions become a source of bodily health, as well as of mental happiness, the beneficial influence of which can hardly be overestimated. To such, the new life seems to have a regenerating influence, with increased vitality and energy, extending even to the organic functions of assimilation and nutrition. I believe that these remarks apply to both sexes, including childbearing and lactation in the female. So long as all these processes go on normally, with good and regular feeding and digestion, the maternal organism receives fresh vigour from the quickening influence of foetal and infantile life; and processes of degeneration and decay are retarded or suspended. So far is correct the common belief that pregnancy and lactation retard the progress of phthisis. But such remarks do not apply to sickly pregnancies, to severe and exhausting confinements, and to excessive or disordered lactation. Such unfortunate contingencies, which cannot always be foreseen, pretty surely impair the vital powers and hasten the progress of decay.

Further, there is a considerable number of consumptive individuals for whom, although the disease be limited and not active, marriage is not desirable. To say, in general terms, that these are *weakly* individuals, does not sufficiently characterise them. Weak they are, both in body and mind; but there is also a nervousness which aggravates the weakness and adds to sensibilities and sufferings. The weakness extends to the sexual function; and although, unfortunately, it does not extinguish desire, it renders the exercise of that function harassing and exhausting. To such persons, married life would prove a perpetual snare and worry; and their safest course is to cultivate the grace of continence in single blessedness.

The apprehension of procreating unhealthy children is an objection more valid with physicians and friends than with the consumptive himself when his affections are engaged; and we are bound to consider that its weight varies also with circumstances. In predicating anything concerning a future generation, it must be borne in mind that we can deal only in terms of probability; and to give them numerical value would require larger statistics than any yet available. Although our experience abounds in examples of children born of consumptive parents being unhealthy, and sooner or later falling victims to some form of the disease, yet the exceptions are numerous also, and prove the power of young life to countervail any inherited proclivity to decay. I could cite many cases, but it would take more time and space than can be given here.

Guided by general principles and experience, we may well warn all consumptives born of one or both consumptive parents, or having several blood-relatives consumptive, that there will be great risk of their own children proving consumptive also, and that the risk is further increased when a consumptive marries into another consumptive family; and on this consideration, as well as for their own sakes, we cannot sanction the union of such consumptive persons.

On the other hand, consumptives whose malady originated in an inflammatory attack, without any clear history of family taint, and whose present condition is that of arrested disease, with good general health, need have no unusual solicitude as to the healthiness of their progeny, if due care be taken with their hygienic and dietetic management. In this respect, as well as in the general treatment of consumptives, the affluent might have a better chance than those in straitened circumstances; for change of air, a salubrious residence, and a variety in the best kinds of food, are potent but expensive means for the restoration and preservation of health. But the indolence and caprices of the affluent often deprive them of their advantages; and, even when they seek advice, they too commonly are guided by their own inclinations as to how far they will follow it. Whilst I was writing these lines, a gentleman entered my consulting-room, saying that he wished for my advice about the propriety of his marrying. Eight years ago, he had been sent home from India, condemned as a consumptive, having spit blood daily for several weeks, and lost much flesh. However, he so far recovered as to be able to return to his military duties in India, from which he again returned invalided two months ago, with a renewal of pectoral symptoms. It is needless to enter into details; but I found signs of limited disease in one lung, which, as I told him, was probably inflammatory, and might be removed with proper treatment and care, and then he might entertain his marrying project. "O!" said he, "I am going to be married the day after to-morrow."

ON MODERN TREATMENT BY DRUGS:

An Extract from the Annual Oration before the Hunterian Society, 1871.

By T. BOOR CROSBY, M.D., F.R.C.S.

LET us now consider the modern method of treatment of disease by drugs. As a natural sequence of altered opinion respecting the utility of bleedings for the suppression of acute disease, the antiphlogistic class of therapeutical agents, especially such direct cardiac depressants as antimony, fell from common use, and are now only employed in special instances. Not only did this change occur, but faith in the curative action of drugs was shaken to its foundation, and thoughtful minds began to question the value of the universal physic-giving practice of former days, from "which scepticism" have arisen great improvements—"a rational selection" and "an improved mode of administration."

Modern therapeutics owes much to the past for many valuable remedies handed down to it, with an authority of the best possible kind—"the test of experience"—more to the application of chemical laws and to results of physiological experiments. Pathology teaches us the stern fact that many morbid conditions are out of the pale of therapeutical control. A careful watching of the efforts of nature herself under disease, unaided by medicines, has shown how powerful is the *vis medicatrix*; these two circumstances have contributed much that is valuable to the *reason-why* of modern medicine. I will now direct your attention to the application of some part of the above reasoning.

To chemistry we owe much that is effective and easily explainable in the employment of drugs, and for the simplification and multiplication of remedial agents. Gout and acute rheumatism are diseases attended with, if not wholly caused by, an accumulation of acid in the system, of uric acid in the former, and lactic acid in the latter. Modern medicine has brought chemistry to its assistance in both, and, by the alkaline treatment, may fairly claim to have diminished the severity and duration of the acute forms of both diseases. Both diseases are accompanied by pain, generally of a severe character; for its relief we have a remedy—colchicum for the one, and of the application of blisters to the swollen and affected joints for the other. For this plan of treatment of rheumatic pain, which experience proves to be most valuable, we are indebted to our able coadjutor Dr. Herbert Davies.

To the empiric experience of the past we are wholly indebted for the valuable specific colchicum—specific certainly it is, as it possesses no

known power of eliminating or neutralising the *materies morbi* of gout, but it nevertheless relieves the severe pain of an acute seizure in a manifest and marked manner. I cannot help thinking that the discredit attaching to this drug as a predisposing cause of a repetition of attack of gout, is due to its non-restriction to the acute stage, its employment being demanded for the relief of pain; its prolonged continuance afterwards would, in common with *any other* depressing cause, indirectly tend to a recurrence of the disease. Dr. Mason Good, whom I again quote, in speaking of gout, said that it "is a disease concerning the nature and treatment of which physicians were never less agreed"; that it constituted the widest field for empiricism and the hottest for warfare of any that lay within the dominion of medical science. This can no longer be said; modern medicine has wiped out the blot from its escutcheon.

Those of us who in the frequent call of our duties have to prescribe an efficient course of mercury, must have been familiar with the horror and dread of it which prevails; the fear which the patient attaches to the drug leads to the oft-repeated question—How will you get it out of my system again? This dislike to mercury is not confined to the public, but there are some members of our profession, a very limited number, however, who have spoken not a little against its employment, especially in syphilis, and would even stamp it out of the *Pharmacopœia* altogether. The evil results following its profuse administration in former times, and an over-estimation of its curative powers, have led to much of the present dread of its employment, and scepticism of its utility. Let us inquire whether mercury deserves such a proscription—utilised as it is in modern days. I will venture to say that it is the best known remedy for the removal of the symptoms of syphilitic infection; and, by the selection of proper cases, and by the modern mode of its administration, it is stripped of its evil consequences and no longer deserves either opprobrium or dread.

Firstly, as to the selection of proper cases: in all syphilitic lesions which show, either in their early stage or subsequent progress, signs of induration, either at their base or in a neighbouring lymphatic or its gland, mercury is a most valuable remedy. Experience has proved that the boundary line between infecting and non-infecting sores is not so easily defined at first sight as it was supposed to be by M. Ricord and other modern authors, and that there is a form of soft suppurating and apparently non-infecting sore, which is liable to assume, during its progress, the character of induration, requiring a guarded prognosis; on this point, during the early days of the new and important method of diagnosis, I witnessed many errors made by others, and made many myself. There is a typical unmistakable form called Hunterian, which is certain to be followed by secondary symptoms; also that there is a typical soft, suppurating, mucous sore, which will as certainly escape such consequences, there is no doubt. I do not believe in the duality of the poison; I regard the difference of the character of lesion as due to modified intensity of one, rather than to plurality of poisons. I have noticed that whenever the poison is sufficiently strong, either to destroy tissue and produce phagedæna, no matter whatever be the situation of the sore, or to produce any lesion on true skin surface, constitutional symptoms most frequently follow, although induration may not appear for two or three weeks.

In these cases, where induration is late in appearance, the constitutional effects are generally mild in direct proportion, leading me to conclude that the early appearance of adhesiveness is the test of the severity of the poison, and its non-appearance at any period little or no proof of its plurality.

The curative properties of mercury may be and are by modern practice obtained without any ill results to the constitution; gastric irritations may be avoided by its external employment; its tendency to blood-blanching guarded against by the simultaneous administration of quinine or iron. The bugbear of its cumulation and retention in the system may be satisfactorily disposed of by the action of its copartner, iodide of potassium, forming with the mercurial albuminate a soluble salt, which is readily eliminated by the various secretions. To the non-mercurialist believer in the treatment of syphilis, I must say that the only cases of syphilitic epilepsy which I have seen, occurred in patients who had not been treated by mercury.

In nerve-therapeutics, modern medicine has made the greatest advance. Dr. Marshall Hall did much by his valuable discovery of reflex action to call attention to the origin of nervous diseases being either centric or eccentric; therefrom followed a like line of therapeutical study, the eccentric causes being those mainly under the influence of remedial treatment for a series of years, till the modern physiological discoveries of Brown-Séquard and Bernard opened a central nerve-therapeutics, the value of which cannot be overrated. I allude to the discovery of the influence of the sympathetic nerve-system over the blood-supply, by its controlling action on the unstriated muscular coat

of the arterial system, and the experiments proving that certain remedies, such as belladonna, bromide of potassium, ergot, and cold, possess the power of inducing contraction of vessel-wall; hence limitation of amount of blood-supply, especially in the central organs of the nervous system, thereby placing convulsive diseases under a control never before approached. Though the majority of cases of convulsion are associated with a hyperæmic condition, it is no infrequent accompaniment of anæmia; here, opium, which I would name the antithesis of belladonna, is a well known useful remedy. Opium contracts the pupil; belladonna dilates it. Reasoning still further, may we not fairly claim for *opium* the power of dilating vessel-wall and increasing blood supply; possibly this may explain its unequalled excellence in the treatment of affections due to exhausted nerves, whether induced by disease, loss of blood, over-mental work, or by alcoholic poisoning. For, notwithstanding all its recent rivals, in subduing delirium tremens it still holds a proud pre-eminence. Any interference with the proper balance of blood-supply to nervous centres being the fertile cause of disturbed function, it is no small advantage to have at ready command remedies capable of controlling its excess and adding to its scarcity. In chloral, of very recent discovery, we have a simple nerve composer, a hypnotic, probably acting on the molecular nerve-tissue itself, hence it has proved of great value in mental sleeplessness and emotional excitation; it bids fair to retain a permanent place in our store of remedial agents; from the same source, the action of inorganic particles on the organic ethers, we may fairly hope for new and important accessions to nerve-therapeutics. From this source comes chloroform, the greatest discovery of modern time. From so able a worker as Dr. Richardson in this field, we may hope for a new anæsthetic which shall prove as efficacious as chloroform, and be devoid of all danger in its employment. This is greatly to be desired, and cannot be said either of the bichloride of methylene or of laughing gas.

Whichever direction we look, improved methods of treatment meet our eye, not merely by the employment of drugs, but by the utilisation of science and the test of experiment. As an illustration of the former, the cure of hydatids in the liver by means of electrolysis, as practised at Guy's by Mr. Durham and Dr. Hilton Fagge, deserves prominent mention; of the latter, the closing of large open sores by means of skin-grafting, on the plan originally practised by M. Reverdin, has rendered signal service in a hitherto tedious and troublesome class of cases.

THE EFFECT OF EXERCISE UPON THE BODILY TEMPERATURE.*

BY T. CLIFFORD ALLBUTT, M.A., M.D. Cantab., F.R.S.,
Member of the Alpine Club, etc.

THE object of the author in carrying out the experiments recorded in the present paper was to inquire whether the regulating power of the organisms held good under great variations of muscular exertion. For this purpose he made frequent daily examinations of his own temperatures during a short walking tour in Switzerland, and found that the effect of continuous muscular exertion upon himself was to sharpen the curve of daily variation, the culmination being one-tenth or two-tenths higher than usual, and the evening fall coming on more rapidly and somewhat earlier. Six parts of the daily temperatures were handed in with the paper. The author made reference also to some observations of M. Lortet, which differed from his own. These observations, which did not come into Dr. Clifford Allbutt's hands until his own experiments were partially completed, were adduced by M. Lortet to prove that the human body was very defective in regulating power under the demands of the combustion needed to supply the force expended in muscular exertion. Dr. Clifford Allbutt's results were very decidedly opposed to those of M. Lortet, for only on two occasions did he note the depressions of temperature which M. Lortet regards as constant. It would seem, however, that the body is more or less liable to such depressions when engaged in muscular exertion, but the cause of them is very obscure. Of the two low temperatures noted by the author, one occurred during a very easy ascent of lower slopes, and the second was observed during a descent. The author thinks that they may be due to some accidental deficiency in combustion, and inquires whether the capacity of the chest in different individuals may account for the varying influence of muscular effort upon them, and perhaps for the earlier or later sense of fatigue.

The sphygmographic tracings added by M. Lortet to his temperature-charts seemed to show a great inadequacy of circulation.

* Abstract of paper read before the Royal Society.

ON SANTONINE AS A CAUSE OF URTICARIA.

By E. H. SIEVEKING, M.D.,

Physician in Ordinary to H.R.H. the Prince of Wales; Physician to St. Mary's Hospital; etc.

IT not unfrequently happens that the medical man meets with unforeseen and disagreeable effects from remedies that he is in the habit of prescribing, owing to idiosyncrasies in his patients with which it was impossible to be previously acquainted. It would not be a work of supererogation to make a collection of instances in which familiar agents have produced peculiar and unexpected results, because they might serve not only as a warning, but also assist in elucidating with greater accuracy the *modus operandi* of the drugs which we use. These remarks apply to medicines upon which we daily rely, such as preparations of iron, quinine, opiates, the solanaceæ. But there are others that are ordered more sparingly; and, when their use is followed by unusual effects, our experience does not enable us to refer peculiar occurrences to analogous precedents. Such is the case with santonine, an agent long regarded as a good vermifuge, especially for ascarides; but, as far as I can gather, not by any means so frequently employed as other agents belonging to the class of anthelmintics. My previous experience of this preparation has not taught me that it is in any way deleterious; nor, after numerous inquiries among my friends, do I find that they have met with unpleasant results from its use. Books speak of it as exercising an occasionally injurious irritant effect. My friend Dr. Garrod has referred me to a case given in the *Annales de Thérapeutique* for 1852, in which a child of four years old, after taking three grains of santonine, experienced severe abdominal pains, vomiting, purging, great prostration, cold sweats, spasms of the extremities, and dilated pupils; but ultimately recovered. Nothing of the kind has been observed by numerous friends whose opportunities of noting the effects of santonine have perhaps been larger than mine: I therefore think that the following account may not be without interest.

I recently prescribed for a little patient of four years old three grains of santonine with five of sugar, which were given to her with her tea; and the nurse was of opinion that she could not have taken the entire dose, as the cup was not emptied. Very soon afterwards, vomiting, accompanied by a severe rash, described as urticaria, and covering the greater part of the body, set in. I saw her soon afterwards, and found her somewhat prostrated by the attack, but otherwise presenting no unusual symptoms. As, on inquiry, it appeared that some error in diet had been committed, I was not disposed to attribute the effect to the santonine, and therefore ordered the dose to be repeated on the following day. Almost directly after taking the medicine (and this time, again, it is probable that only a portion was taken), a white wheal appeared on the nose, surrounded by an erythematous blush; and a similar eruption rapidly covered the body. Violent vomiting set in, but unaccompanied by abdominal or other pain, or by purging; and the entire face became swollen. This swelling attained such a height, that when I reached the house, within a quarter of an hour of the commencement of the symptoms, the child's face was disfigured to such an extent as to make her almost unrecognisable. The lips, from which some viscid saliva was still issuing, were swollen to an enormous size, glistening from the oedematous distension. The nose—at other times a delicate feature in a sweet little face—was enlarged to the size of a negro's; and the eyes were almost closed by the same condition of the lids. The intellect was unimpaired; and there were no spasmodic or other symptoms referable to the cerebro-spinal centres. I at once placed the child in a warm bath, which soothed her; and within an hour the oedema and the rash had for the most part disappeared. No further bad result followed; but, on the contrary, although no vermifuge effect was noticed, the child's appetite and general condition were improved on the following day, after a night of sound sleep.

It naturally suggested itself that the powder had not been properly made up; and that some ingredient, for or besides those ordered, might have been introduced. But an analysis, kindly made for me by Mr. Squire, satisfied me that there was no ground for this assumption, and that the effect could be attributed solely to the santonine. The analogy presented by the symptoms occasionally resulting from the use of copaiba, the consumption of honey, of shrimps, of mussels, of strawberries, assist us but little in the explanation of the occurrence; but it seems clear that the effect resulted mainly from a peculiar irritation applied to the pneumogastric and sympathetic nerves. The vaso-motor nerves were evidently largely implicated; but I do not remember ever seeing an instance in which so large an effusion of serum took place with the same rapidity, or disappeared as quickly. I may mention that this case has taught me that santonine is by no means as tasteless as

all the authorities within my reach tell me that it is. On the contrary, it possesses a well marked bitter flavour, which appears to be enhanced by the addition of sugar.

MUCOUS DISEASE.*

By WALTER WHITEHEAD, F.R.C.S.Ed.,

Surgeon to St. Mary's Hospital, Manchester.

THERE is reason to infer that mucus in an abnormal condition, or in an excessive quantity, may be produced on most, if not all, mucous surfaces. Andral, in his *Pathological Anatomy*, makes the remark that, in opening bodies, one is sometimes struck with the prodigious quantity of mucus on the internal surface of the stomach or intestines. He says, usually the mucous membrane is bright red, or it may be pale, without the least trace of injection; the increase of a secretion not necessarily inferring the formation of a sanguineous congestion in the secreting organ. M. Billard and M. Lélut have found membranes in which no trace of organisation could be discovered, in the mouth, pharynx, œsophagus, and stomach. I am at the present time attending a woman who, by a peculiar effort, which does not amount to a cough, brings up quantities of casts. Microscopically, they have the precise appearance of some of the specimens of casts from the colon. The total absence of fibrillated tissue enables me, of course, to distinguish them from the expectoration of a plastic bronchitis.

The structure and composition of these formations has been principally studied by Drs. Wilks and Clark, in England, and recently by Dr. Perroud of Lyons. Dr. Wilks and Dr. Andrew Clark made a most elaborate report on the microscopic appearances presented by these membranous shreds and tubes to the Pathological Society in 1857; Dr. Andrew Clark adding a supplementary note, in which he states that he has chemically and microscopically examined these pathological productions, and also preserved numerous specimens of them.

Dr. Perroud, in a contribution to the *Journal de Médecine de Lyons* for September 1864, gives the result of a carefully conducted chemical and microscopical investigation of these mucous concretions.

From the above-named sources, we shall be justified in stating that the characteristic discharge from the bowel may be divided into three stages:—

1. Masses of more or less inspissated mucus having the appearance of colloma or jelly. They are imperfectly membranous, and contain only the merest trace of albumen.

2. Tubular casts of the gut, which are veritable cylindrical sheaths, and also membranous shreds and flakes of various forms, which can be shown to be nothing more than fragments of the tubes in various stages of development. They have been compared to macaroni, vermicelli, and, according to Trousseau and others, from their slight resemblance to the *tœnia solium*, they have been mistaken for that worm. They sometimes present an irregular cribriform appearance, but by replacing the various branches you restore a perfect surface, which originally was evidently constructed in longitudinal stripes. M. Cruveilhier has seen them branched like the concretions formed in the bronchial tubes. These forms are membranous, and contain an abundance of albumen, but no fibrin.

3. Membranous shreds of lymph, mixed with blood and pus. This form contains both albumen and fibrin in abundance, the latter in a fibrillated form.

Dr. Andrew Clark observes that, differing in most respects, these three varieties of morbid product agree in this, that they all contain similar cell-forms; yet it is to be noticed that in the first variety there is no evidence of transudation or exudation; in the second, no evidence of a true exudation; and that in the third, in which the existence of a true inflammatory exudation is undeniable, the only additional structural element present is fibre. By the aid of a microscope, it appears that these membranes are formed in different layers; and, when they consist of more than one, we often find interposed between the laminæ particles of undigested food. The tissue of these membranes consists of an elastic, transparent, and structureless matrix, in which is embedded great numbers of spherical and cylindrical cells, the *débris* of these cells, free nuclei, crystals of the ammonia-phosphate of magnesia, and particles of incompletely digested food.

Dr. Perroud, from his chemical and microscopic study of these membraniform concretions, arrived at the conclusion that, in addition to a small quantity of albumen, they are formed of the same substance as that which enters into the composition of the epidermis. These membranous shreds and tubes are voided in lengths varying from a few inches

to upwards of four feet. Potain has measured them from thirty to forty *centimètres*. The thickness, of course, varies according to the number of layers entering into their composition. My estimate of a single layer is from one-twentieth to one-sixteenth of an inch. The tubes from the colon vary from an inch to an inch and a half in diameter. The quantity passed at times is most astonishing. Powell records having observed them in sufficient quantity to have lined the whole intestinal canal. When recently collected, they are often stained a yellowish brown; but after a little washing in water, they become almost perfectly white, and have rather the appearance presented by wet tightly compressed cotton-wool.

In *post mortem* examinations it is found that the adherence of these membranes to the mucous surface of the intestine is variable. Sometimes they are raised with facility by the percussion of a stream of water (Gendrin); at other times they adhere so firmly to the mucous membrane that they cannot be detached by strongly scraping with a scalpel; portions of them may, however, at the same time be found in the fecal matter (M. Billard).

With regard to the etiology of this disease, I fear I must place it amongst that vast class of disorders which it is rather our habit to group than to define, resting satisfied with some such general term as neuropathic, amounting, one cannot help feeling, to an admission of almost absolute ignorance. The easiest explanation would be to recognise some flaw in the mysterious cycle of nervous influences which governs all secretions. I will, however, briefly state the causes which have been assigned by those who have taken the disease into their consideration.

Cruveilhier ranked it as a variety of colonic chronic enteritis. Perroud considers it a nervous disease, and affirms that it is frequently met with in subjects affected with enteralgia. Powell thought it fair to suggest that mucous products may be poured out from the exhalants, rather than from the mucous glands of the intestine. Trousseau attributed the disease to inflammatory causes. Grisolle classifies it as one of a species of neuralgia. Habershon has observed mucus passed in elongated flakes, and casts of the intestine, following severe diseases of the intestines of a dysenteric character; he also states that this disease is sometimes associated with a state of chronic congestion of the liver. The same author goes on to affirm that it is often perpetuated by the presence of hæmorrhoids, polypoid growths, or ovarian disease. In young women, painful menstruation, and in men prostatic disease, are held by him as efficient causes.

Dr. Henry Bennet, in speaking of chronic metritis, says that it is accompanied in a great number of cases by congestion, or even subacute inflammation of the mucous membrane lining the rectum or colon, as evidenced by the secretion of large quantities of mucus, and of pseudo-membranous shreds, and casts that are passed with the "feces." Dr. Byford also considers it in the light of a symptom of uterine disease rather than an independent affection.

Dr. Golding Bird considers the colonic follicles to be the source of these membranous substances. Andral also says that a concrete matter secreted by the follicles may come out, and spread in a more or less thick layer over the gastro-intestinal mucous membrane; but that may also occur, he further states, without the assistance of these follicles, merely by means of an alteration of what he calls the perspiratory action that resides in every living particle, but which we must take simply to mean otherwise than by follicular secretion.

Grantham attributed all the cases which he had observed to the administration of mercury conjoined with the too frequent use of aperient medicine, and he looked upon struma as a predisposing cause.

Dr. Arthur Farre believes the formation to be of a confervoid type—an *oscillatoria* in fact, the result of sporules swallowed by the patient.

Sir James Simpson, as already stated, pointed out that these ejections of pellicles of thickened mucus or of actual coagulable lymph, presenting the appearance of shapeless masses, or of tubular false membranes, are the products of a papular eruption of the lower part of the small intestines and the colon, the direct evidence of which may generally be obtained by carefully examining the state of the mucous membrane that is within sight.

After giving you the opinions of such men as I have just quoted, we will endeavour to read this disease under the guidance of modern research; and I think that the conclusions at which we arrive may be formulated as follows.

The proximate cause of the symptoms referable to this disease is the hypersecretion and accumulation of mucus on the free surfaces of mucous membranes; such accumulations sheathe and prevent the healthy performance of the functions natural to the part, thus inducing immediate and remote results, the effects of such suppressed functions.

This hypersecretion indicates a want of balance between nerve-force and germinal matter. The nerve-force is perverted by irritation. The

exciting causes are numerous. It is a character of mucous secretion, under the influences of irritation, for its cell-elements to increase and its viscosity to diminish. And in the disease in question, the prolific cell-formations become entangled in the albuminous fluid in which they are found, and present the membranous structures before referred to.

There is no particular age which predisposes to this disease; nevertheless, middle-aged persons, children, and old people, may be held as liable to this disease in the order in which they are enumerated. A damp climate has a peculiar influence in increasing the severity of the symptoms in this complaint. It occurs far more frequently in females than in men. As another predisposing cause, we may consider the enervation produced by the habits of modern society to be an efficient one—I allude more particularly to the want of exercise, the absence of healthy mental occupation, and the substitution of thoughts which are for ever recurring to the sensations, and symptoms of self—the habit, as the French say, of "listening to oneself live". Constipation, and the retention of excreta within the system, while it is a consequence, is also an exciting cause of the disease.

This disease is generally observed in persons of a cold temperament and relaxed habit of body, characterised by softness and want of elasticity of fibre, a feeble circulation, cold extremities, and a peculiar whitish-yellow paleness of skin; and in those who show manifest great languor and apathy in their feelings, and a want of decision and energy in their moral and intellectual character, and who yet possess a highly excitable condition of the nervous centres. Women who suffer during menstrual periods, and those who are victims to membranous dysmenorrhœa, are peculiarly prone to it. It is often met with in women who are either childless, or have ceased early in their married life to bear children. The blood of such patients is deficient in fibrin and red discs; the skin acts in a most imperfect manner. The most common exciting cause of the malady is the irritation of the intestinal canal, produced by crude and indigestible articles of diet.

The cases which I have had an opportunity of observing where a distinct peripheral irritation could be discovered—an inflamed pile, for instance—have always subsided when the cause of the irritation has been removed. Neither do these cases depend so much on temperament as those in which no exciting cause can be distinguished. In regard to this latter class of cases, when we bear in mind that a large proportion of those who pass these casts are subject to some such indication of mental disquietude, as we find indicated by hysteria, chorea, hypochondriasis, and the like, may we not infer that the same initial lesion, whatever that may be, which induces the disease of the nervous system, may also induce the one in question? Just as, in fact, Claude Bernard has shown, not only that secretions, such as saliva and tears, can be augmented in quantity by reflex action, but further, that the chemical composition of a secretion can be modified by the same means. I have had on a single occasion an opportunity of examining and showing to more than one of my colleagues, by means of a small vaginal speculum, the interior of the rectum of a woman who was suffering from retroverted uterus and the passage of these vermicelli-shaped substances. We could plainly see numerous isolated spots occupied by the mucus.

The invasion and early progress of this disease is most insidious. Although each case is characterised by symptoms peculiar to itself, there are, however, general symptoms which, combining in different numbers and degrees of severity, make up the individual cases. For instance, the patient's appearance is peculiar; for, although there is no amount of emaciation, there is a want of tone. The skin is either dull and sodden, or swarthy looking, or else it is of an artificial waxy clearness. It is often clammy and greasy, and acts but imperfectly. Eruptions of various descriptions are far from uncommon, and would appear at times to be vicarious of the internal mucous phenomena. The lips and gums are generally pale; the tongue is moist, pale, and flabby, often swollen, and indented by the teeth, sometimes red and irritable. The mucous coating of the tongue often peels off in patches, leaving the surface underneath raw and tender. Small ulcers are frequently met with on the tongue, and also on the insides of the lips, cheeks, and gums, and even on the fauces, pharynx, and posterior nares; when these latter localities are implicated in this manner, violent headaches are always experienced. The pulse is weaker and slower than natural.

The patient's subjective complaints are legion. Every ailment a hypochondriac could desire would be included in the catalogue, were I to give it. Digestion is slow and difficult, accompanied by a depressed and anxious mind, and often palpitation of the heart. The muscular system is soon fatigued. The nervous powers are speedily exhausted; the memory is bad; there is no capacity whatever for exertion. But much graver symptoms than these not unfrequently point to the nervous system as the one most seriously at fault. I allude to symptoms of chorea, melancholia, and partial paralysis. The action of the bowels

is rarely normal; they are almost always constipated, though diarrhoea does sometimes alternate with constipation.

With regard to the formation, exfoliation, and discharge of these mucous structures, it would appear that in each case they observe a regular periodicity, that the exfoliation is critical, and is always followed by an immediate amelioration of the symptom which intensify up to that event. The patient is usually conscious of the formation of each fresh crop, and describes it as a gathering in some part of the abdomen, generally the lower part of either lumbar region, more frequently the left. At other times, the feeling is only one of heat and rawness. The exfoliation is indicated by a sudden attack of pain in either flank, or towards the epigastric region, spasmodic in character, and often lasting a couple of days. During this time the tongue becomes coated, the pulse hard and quickened, the temperature raised, and the urine dark coloured, often containing albumen. The skin at this time frequently becomes jaundiced; but this, I have observed, is never the case when the pain is referable to the left side. In the course of a day or two after these attacks, the mucus comes away, either in a motion or by itself; and for a variable time the patient is free from the more distressing of the symptoms.

I have, of necessity, but very briefly sketched the symptoms; to give the list in full would far exceed of itself the time you place at my disposal.

There are few diseases less amenable to treatment than the one under consideration; the most varied methods have been tried in some cases without being able to check the formations. Dr. Andrew Clark considers that the first stage is generally curable; that the second is occasionally curable; and that the third resists all treatment. I certainly feel inclined to qualify one of these statements by saying that, as far as my experience goes, the first stage is always to be remedied.

The principal points in the treatment are as follows:—

1. Discover, and counteract any cause, either in direct contact, or the immediate vicinity of the secreting surface, which can be traced as a source of irritation, such as accumulations of scybala, or a retroflexed uterus.

2. Reinvigorate the strength, and allay the nervous irritability.

3. Remove the accumulated mucus.

4. Prevent its re-accumulation.

Whatever plan is adopted in support of these indications, it is, above all things, necessary to insist upon a sufficient time for the trial of each measure before another is substituted. The progress towards recovery is always slow, and to the sufferer almost imperceptible.

With respect to the sources of irritation, excepting constipation, which is a consequence as well as a cause of the disease, they require treating according to their respective requirements, and in the departments to which they belong. The constipation is one of the most troublesome features with which we have to deal. Whatever relieves for the time but increases trouble for the future; bearing this in mind, the wisest plan is to trust more to nature than to drugs, leaving the bowels to recover the tone which is usually found to have been destroyed by a long course of aperient medicine. The physician should ascertain from time to time that no unusual accumulations take place in the colon; and when such do occur, I employ an enema of water reduced to a degree of cold tolerated by the patient. Beyond this I sometimes recommend the slow mastication after the mid-day meal of a couple of grains of rhubarb-root.

The purgatives which are particularly hurtful, and to be avoided in this case, are mercury, aloes, senna, all drastic purgatives, and articles of diet of an aperient nature. I have repeatedly had occasion to note that koussou administered to certain individuals is certain to be followed in the course of some days by the discharge of these mucous substances. Cruveilhier makes a similar observation respecting the bark of the pomegranate.

To reinvigorate the strength and to allay the nervous irritability, remedies have to be selected according to the peculiarities of the individual cases. A prescription which I am frequently in the habit of giving with excellent results is the *mistura ferri composita*, with increasing doses of the bromide of potassium. This mixture I often continue for months before deriving the desired result.

It is advisable, in obstinate cases, to try alkaline enemata with the object of removing the accumulated mucus, and then to endeavour to prevent its reformation by injections of a solution of nitrate of silver, as advised by Grantham, beginning with one-sixth of a grain to an ounce of water.

Counterirritation is of essential service, especially the daily soaping of the entire surface, then washing off with chilled water, and finally prolonged friction with a coarse towel. The clothing must be regulated to ensure warmth conjoined with freedom. Exercise, short of fatigue, should be taken daily. The diet is perhaps the point of all others where the greatest mistake is made. An idea, strongly felt by the patient,

that a great amount of strengthening food is required, leads to the further exhaustion of an already feeble digestion. Impress upon the patients the fact that it is the quantity absorbed which means strength, and not the bulk swallowed, and it is possible to check the error they are so anxious to commit. Certain articles of diet should be strictly interdicted, the chief of which are the following. Liquid food, excepting milk, aggravates, in the majority of cases, every symptom; sugar is invariably hurtful; tea, coffee, and alcohol—Burgundy being the only wine from which I have ever derived benefit—vegetables, and fruit also prove injurious.

In conclusion, let the treatment be as much of a negative character as circumstances will permit. Trust to time and surroundings, and, above all, to nature, the best of curative agents.

Such, gentlemen, is a sketch of a disease most serious in its import to the patient, and of far from infrequent occurrence. True, the treatment is still in its tentative stage; but we are clearing the way for sounder views on the subject by accurately laying down the causes and symptoms of a malady, which one cannot doubt is constantly mistaken for one of the hydra forms of dyspepsia, so that, by the erroneous treatment resulting from this mistake, the first, or curative stage of the disease, is allowed to pass into the later and more lethal forms.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

GUY'S HOSPITAL.

SHORT NOTE ON CASES UNDER THE CARE OF DR. WILKS.

AT present there are several cases of much interest in Dr. Wilks's wards at Guy's Hospital, which we were enabled hurriedly to glance at with him.

In the male wards is an interesting case of aneurism of the thoracic aorta. The patient had been previously treated at one of the hospitals as an out-patient for some slight ailment; but there was now discovered a pulsating tumour below the angle of the scapula. The pulsation, although sufficiently evident on close inspection, was demonstrated more clearly by means of what was called by Mr. Wilkinson King,* who first drew attention to the subject, the sphygmometer. It simply consists of a stiff hair, the end of which is fixed on to the tumour by a piece of wax. The pulse is thus indicated by the movements of the extremity of the hair, which can be made to produce a delicate tracing on a piece of paper. The sphygmograph is nothing more than a recent elaboration of this ingenious discovery.

In the same ward is a case of paralysis of the right upper extremity, and of it alone. The patient, a strong robust countryman, found his arm paralysed, both as to motion and sensation, on waking up one morning. There was no history giving the least clue to its nature, and no local cause, such as a tumour pressing on the nerve, discovered; and the paralysis was now daily diminishing. Dr. Wilks thought it not improbable that it might be explained by the man having lain on his arm during the night.

In the adjoining bed was a young man with obstinate epilepsy. He had a seton in his neck—a mode of treatment which Dr. Wilks had found and believed to be the most effective in such cases.

In this ward was a patient with albuminuria and considerable dropsy, in which case *copaiba* had been tried as a diuretic without much effect. In a patient, however, in the female ward, suffering from cardiac dropsy without albuminuria, this remedy had answered admirably. It is in the cases where the kidneys are unaffected, that *copaiba* generally, but not always, answers best.

In the male ward we saw a man with a distinctly malignant aspect, who had been sent to the hospital suffering from dysentery. Such cases Dr. Wilks had usually found to be, on examination, cases of cancer of the rectum, as it proved to be in this patient.

Sitting on a chair in the ward, was a man who was the subject of epileptic attacks. Hemiplegia had also come on—a combination which, Dr. Wilks believed, always pointed to organic disease of the brain.

* On the Safety Valve Function in the Right Ventricle of the Heart.—*Guy's Hospital Reports*, vol. ii.

ST. BARTHOLOMEW'S HOSPITAL.

GUN-SHOT WOUND INTO THE KNEE-JOINT.

(Under the care of Mr. HOLDEN.)

WE are indebted to Mr. Hogg, House-Surgeon, for the notes of the following case.

The patient, J. R., aged 47, a strong, healthy, and well nourished man, was admitted September 17th, 1870, under the care of Mr. Holden. He had formerly been a sergeant in the 56th Regiment, and was, when admitted, a sergeant-instructor in the 39th Middlesex Rifle Volunteers. At the time of the accident, he was engaged in marking at the 500 yards range, at Rainham in Essex, when an Enfield rifle-ball (weighing 540 grains), falling short of the target, rose from the ground and penetrated his left knee-joint on the outer side, causing a circular wound an inch and a half from the outer border of the patella. It passed through the joint, and escaped on the inner side, leaving a stellate wound, which was situated an inch and a half above the lower border of the patella.

Immediately after the accident, he was conveyed to the hospital, where he arrived one hour after receiving the injury, almost in a state of collapse. On the removal of the trousers, small spicula of bone were found adhering to the leg. There was constant oozing of blood from both wounds, and the knee-joint was noticed to be full of blood. The limb was immediately placed on a swing-splint, and irrigated with iced water. He slept fairly at night. The pulse varied from 64 to 72, and his temperature did not exceed 99.5. He was ordered thirty-minim doses of laudanum for several nights, to allay pain and to produce sleep. During the first four days after the accident, large quantities of thick glairy fluid, probably synovial, escaped from the wound.

Sept. 26th. This morning the patient had a severe and prolonged rigor. He complained of great pain in the knee-joint. The glands in the groin were very much swollen, and the knee-joint very much inflamed and swollen. Pulse 100; temperature 101.2.

Sept. 27th. He passed a very restless night. He complained of shooting pains in the joint. There was purulent discharge from both wounds. Pulse 110; temperature 103.8.

Sept. 28th. There was less pain in the knee-joint. He was ordered a subcutaneous injection of morphia, instead of the opium.

Oct. 2nd. He had had a slight rigor. Pulse 100; temperature 102.

Oct. 3rd. He slept well; had no more shivering. He complained of no pain. He wandered very much at night. Pulse 84; temperature 100.

Oct. 6th. He was very delirious the previous night. The wound was looking healthy. The wound was ordered to be syringed out with carbolic acid lotion, one part to forty of water. There was pain in the lumbar region where the skin looked red. The tongue was more or less furred. Pulse 83; temperature 100.1.

Oct. 7th. He felt better after taking some rum, which had been ordered; it was his usual stimulant. He passed a good night. The wound was discharging freely. Pulse 88; temperature 100.2.

Oct. 8th. The wounds were discharging freely. There was little pain in the joint. He was still delirious at night. Pulse 82; temperature 99.

Oct. 10th. The patient was very much better. There was very little discharge from the wound. The subcutaneous injection was ordered to be discontinued. Pulse 79; temperature 98.1.

Oct. 21st. The patient from this time continued to improve daily; and on October 21st a gutta-percha splint was adapted to the knee, enabling the patient to move about the ward on crutches.

Nov. 7th. The wounds had entirely healed, and the patient felt quite well. The knee was fast recovering its normal shape.

ROYAL LONDON OPHTHALMIC HOSPITAL.

CASES OF POSTVARIOLOUS CORNEITIS.

(Under the care of Mr. HULKE.)

SINCE the beginning of the present epidemic of small-pox, many persons have been seen at this hospital with affections of the eyes arising from it. With few exceptions, most of those who have come under Mr. Hulke's care have been examples of what the late Dr. Mackenzie aptly called "corneitis postvariola"; for it first begins when the patients are convalescent, but still weak. In typical cases, the earliest indication of the corneitis is a small, faintly hazy, greyish spot, in which the transparency of the cornea is lessened, and the brightness of its surface is dimmed. The opacity extends; and it deepens at the centre of the spot, acquiring here a stone or pale buff tint, and fading off insensibly at its circumference. With this, the vessels around the cornea have enlarged. The pericorneal redness is uniform when the

keratitis-spot is nearly central; but, when the focus lies towards the edge of the cornea, the redness is greatest in its neighbourhood. At this stage, complete restoration is possible. The exudation and the cell-broods proliferated from the corneal corpuscles may be absorbed completely, leaving the cornea quite transparent; and the pericorneal and conjunctival redness may disappear. Too often, however, probably from want of proper care and absence of judicious treatment, the corneal tissues at the centre of the inflamed spot melt down, giving rise to a minute abscess. This opens externally, in some cases by a progressive solution of the tissues lying between it and the front surface of the cornea; or these are destroyed by ulceration proceeding from the surface inwards, while not infrequently it also breaks into the anterior chambers. Not seldom the suppuration, limited at first, spreads and involves the destruction of a considerable portion of the cornea. In such cases, particularly in adults, the keratitis is complicated by the supervention of iritis with hypopion, as Mackenzie long since remarked. With the perforation of the cornea, the contents of the anterior chamber escape; and the iris is flushed into the wound, to the edges of which it soon becomes attached, when the aqueous humour, prevented by it from escaping except by slow filtration through it, distends it in the form of a hernial bulging beyond the corneal surface. The protruded iris, at first a delicate translucent vesicle, soon becomes coated with a thin greyish pellicle of lymph, in which small red dots soon appear—minute vascular granulations. These increase in number; the bulging vesicle reddens; it at the same time grows thicker, then begins to shrink; and the shrinking goes on until it is lost in the corneal scar. This, when small, is the limited opaque white spot called a partial leucoma. When large, it may replace the whole of the once transparent front of the globe, constituting total leucoma—a condition beyond remedy by surgery.

At all stages, warm and sedative applications are most grateful to the patient's sensations, and most beneficial. Compresses of cotton-wool, dipped in a warm decoction of poppy-capsules, to which extract of belladonna, in the proportion of two drachms to a fluid-pint, has been added, should be frequently renewed; and atropine drops (two grains to a fluid-ounce) put into the eye at short intervals, three or four times in the morning, and repeated in the afternoon. If there be much conjunctivitis, with copious discharge, alum may be added to the poppy and belladonna water, in the proportion of two grains to a fluid-drachm, and a little allowed to enter the eye, three or four times a day.

When the hernia of the iris is small, and it does not enlarge, and when it is not chafed by the lids, and does not seem to retard recovery, it will be wise to leave it alone; but, if it enlarge much, if the play of the lids upon it give much pain, and if it increase the irritability of the eye, the better plan is to snip it off flush with the corneal surface, and reapply a compress. This is scarcely more painful than puncturing it; and it rarely needs to be repeated, which a simple puncture often does. Both cutting it off and puncturing it are safer than touching the hernia with a pointed stick of nitrate of silver; and, should caustic be preferred, the safest method is to touch the bladder with a small camel-hair pencil which has been moistened with distilled water and drawn to a point on the caustic stick. This can at least do no harm, if the patient inadvertently move from want of self-control, or if the surgeon's hand be not steady.

Throughout, the patients need a nourishing diet and tonics; and this also when iritis is present, for now no one would follow Mackenzie's advice to bleed and give mercury on the occurrence of this complication. Under the treatment here indicated, the slighter cases soon recover, and the more severe ones quickly improve.

CASE I.—Wm. K., aged 19, applied at the Royal London Ophthalmic Hospital January 5th, 1871, with inflammation of the right cornea. There was one opaque, grey, infiltrated patch, bordered by a diffuse haze at the lower and temporal side of the cornea, with much pericorneal redness of the conjunctiva and sclerotic. He was just convalescent from small-pox, which he believed he caught in his business of an undertaker. The eye first began to inflame "after the turn of the pox". He had one foveated vaccine scar on the right arm.

CASE II.—Thos. L., aged 3½, was brought to the hospital January 18th, 1870, with keratitis. Near the lower and temporal side of the right cornea was an infiltrated whitish-grey patch, encircled with a diffuse haze, which faded out insensibly. There was also great pericorneal congestion. The child was evidently very weak. He had been attacked with small-pox about one month before, and the eye began to inflame a fortnight afterwards. He had not been vaccinated.

CASE III.—Alfred G., aged about 16, came to the hospital January 25th, with conjunctivitis of both eyes and a superficial excoriation of the right cornea. He said that he had always had weak eyes. He was just convalescent from small-pox. The right eye did not inflame until he began to get about. He had one fairly marked vaccination-scar.

CASE IV.—Ellen H., aged 16, a servant, came to the hospital December 31st, 1870, with ulceration of the left cornea. The ulcer was large, but not very deep. Eight weeks previously, she had taken small-pox from a lodger in the same house; the attack was mild. She had three well marked vaccination-scars on the arm.

CASE V.—Peter R., aged 55, came to the hospital January 7th, 1871, having, one month before, been attacked with small-pox. He was still very weak. When he began to get about, the right eye inflamed. He had an abscess of the cornea, with ulceration of the external surface, hypopion, and iritis. He had a single indistinct vaccination-scar on each arm.

CASE VI.—Joseph B., aged 15, a printer, presented himself at the hospital December 14th, 1870, with a large hernia in the iris, through a perforation in the lower part of the cornea. He was just convalescent from variola, and said, in reply to our inquiry, "After the pox turned, my eye became bad." Three others in the same family besides himself had all small-pox. None of them had been vaccinated.

CASE VII.—Sarah W., aged 27, a tall, well grown, once good-looking woman, applied at the hospital January 21st, 1871, to know if she could safely wear an artificial eye. Her face was very closely pitted and scarred; and her limbs and trunk dotted with very numerous scars, yet brown. She had caught small-pox in August, and had it so severely that her life was despaired of. She confidently asserted that she had been vaccinated; but no trace of vaccination-scar was discernible on either arm. During her convalescence, the right cornea inflamed. The right eyeball was shrunken; the front of it flattened; the cornea replaced by a white scar, at the centre of which was a small florid granulation-bead.

(Under the care of Mr. JONATHAN HUTCHINSON.)

IN addition to the following cases, Mr. Hutchinson informs us that a considerable number of others have been brought to the Hospital within the last few months. In two cases at least both eyes were quite destroyed at the time of the patient's first visit. All the most severe cases have been in-patients who have not been vaccinated. In the fifth volume of the *Ophthalmic Hospital Reports*, 1866, Mr. Hutchinson has published a note on "Inflammations of the Eye occurring some little time after Small-pox". As is well known, the commonest form of ulceration of the cornea begins during convalescence, between the tenth and the fourteenth days, and the ulcer is very rarely indeed the result of a small-pox pustule.

Sometimes the corneal inflammation is deferred until a still later period, and does not occur until the patient has been for some time convalescent. In further proof that these corneal ulcers do not strictly belong to the exanthem stage of the disease, we have the curious fact that now and then they are substituted by iritis. When iritis follows small-pox, it is, according to Mr. Hutchinson's observation, never earlier than a few weeks after the rash. He informs us that during the last month he has seen two cases of postvariola iritis; in one it occurred when a corneal ulcer was healing, and in the other in a young gentleman who had had small-pox very mildly, and who was quite convalescent. This form of iritis is rarely severe, but the reverse is the case in respect to all the forms of corneal ulceration which resist treatment in a very remarkable manner.

CASE I.—*Ulcers on the Cornea during Modified Small-pox.*—J. H., aged 20, applied at Moorfields on Dec. 29th, 1870, with several ulcers on the left cornea; the largest was a circular ulcer with deposit at its base, at the lower margin of the cornea. There were several smaller ones at the upper part, and the whole cornea was somewhat hazy. There was no iritis. He presented the remains of an abundant eruption of small-pox on all parts of the body. The spots were all of small size; they had dried up, and in some cases the scab had come off and left a small pit. He had not been vaccinated since infancy, but he showed three good scars on his left arm. He stated that his eye began to inflame the day after the eruption began on the body, and this was three weeks and a half before he applied at the Ophthalmic Hospital. A fortnight after he was first seen, the notes state that "ulcer is healed, leaving only a slight opacity".

CASE II.—*Ulcers on each Cornea during Small-pox: One Eye Lost by Sloughing of Cornea: History of Ulcer on Cornea of the Lost Eye in Childhood: Imperfect Vaccination Scars.*—Mrs. P., aged 22, was admitted under Mr. Hutchinson's care at Moorfields on November 14th, 1870, for ulcers of the cornea. The left cornea had already sloughed, and a large portion of it had come away. On the right cornea there was a small ulcer. There were deep pits on her face left by the recent small-pox pustules. Her account was, that the eruption of small-pox preceded the affection of the eyes by three days. She stated that the left eye (which was lost from sloughing of the cornea during the small-

pox) had been injured by a fall in infancy, and that there had always been a "speck" on it since then. She had three vaccination-scars on her left arm; they were of good size, but not well pitted. She was treated by setons in the temples and quinine mixture. Much benefit followed, but the right eye again became congested and intolerant of light after the seton had been removed; a thread was again introduced on the right side on January 2nd, 1871. At that time the left eye was quiet, but quite blind from a large anterior staphyloma and extensive opacity of the cornea.

CASE III.—*Ulcer of Cornea followed by Sloughing and Perforation during Small-pox: Insusceptibility to Vaccination before the Small-pox.*—Julia R., aged 3½, was brought to Mr. Hutchinson at Moorfields on January 23rd, 1871. She had a large sloughing ulcer of the left cornea; there was a perforation at the lower part of the ulcer, and the aqueous fluid had escaped. The eye would probably be lost. The child had suffered severely from small-pox nine weeks before admission, and her face was covered with stains and scars of the eruption. She had been vaccinated no fewer than three times, at the age of nine weeks, ten weeks, and fifteen weeks, and with an entirely negative result in each case.

CASE IV.—*Ulcers on the Cornea during Modified Small-pox.*—Mary R., aged 11, came under Mr. Hutchinson's care on January 30th, 1871. She had opacities on each cornea. Those on the left were largest, and occupied a considerable part of the central and outer portions of the cornea. In the right eye there was a single opacity quite at the inner margin; it seemed to belong as much to the conjunctiva as to the cornea; the conjunctiva near to it being considerably thickened. She had had a mild attack of small-pox, which had left ill-marked scars in September, 1870; and the mother stated that the eye-affection commenced almost as soon as the spots began to come out. The left had been affected (probably by ulcer of cornea) in infancy, and a "speck" had remained ever since. She had been vaccinated in infancy; and there were, on admission, two large scars on her left arm: they were not very well pitted.

CASE V.—*Ulcer of Cornea soon after Modified Small-pox: Relapse of Ulceration accompanied by Iritis three months later.*—Ann M., aged 34, came under care at Moorfields on November 7th, 1870, on account of an ulcer on the right cornea: there was much photophobia. She was then recovering from an attack of small-pox which had occurred two or three weeks before, and had left numerous but small scars on her face. She stated that the eye had ailed nothing until she was getting better of the small-pox—until she had, in fact, been up and about for a week. A seton was inserted in the temple, and she was advised to take quinine and to go into the country. The eye soon improved considerably; but on Feb. 6th, 1871, she again applied, with a relapse of ulceration and with iritis. There was, on this occasion, great intolerance of light, and much conjunctival congestion. At the centre of the cornea was a small greyish ulcer with a band of vessels running to it from the upper margin of the cornea. The pupil was irregular, after dilatation with atropine, from the presence of an adhesion at its inner part; there were no nodules of lymph on the iris. She had not been vaccinated since infancy, but the scars on her left arm were well pitted and of good size.

ROYAL COLLEGE OF SURGEONS.—On the evening of Tuesday last, the President and Vice-Presidents entertained a large and distinguished party at dinner, at the Albion Tavern. Amongst the guests were the Lord Chief Justice, Sir W. Bovill; the Lord Chief Baron, Sir F. Kelly; Vice-Chancellor Sir R. Malins; Mr. Justice Keating; the Presidents of the Medical Council and of the Royal College of Physicians; the Lord Mayor, and the Prime Wardens and Masters of some of the City Companies; Sir Dominic Corrigan, Bart., M.P.; Dr. Brady, M.P.; Mr. Gregory, M.P.; Dr. Brewer, M.P.; Mr. Dalrymple, M.P.; Colonel Beresford, M.P.; Mr. Harvey Lewis, M.P.; Sir C. Locock, Bart.; Sir Victor Brooke, Bart.; the Treasurers of St. Bartholomew's, St. Thomas's, Guy's, King's College, and University College Hospitals; the Master of the Society of Apothecaries; etc. About one hundred guests enjoyed the splendid hospitality of the College of Surgeons; and, owing to the length and number of speeches, did not separate until a late hour.

VACCINATION IN WEST VIRGINIA.—From a report to the Governor of West Virginia, on vaccination, by Dr. John C. Hupp, State Vaccine Agent, we (*New York Medical Gazette*) learn that during the past eight years the author has vaccinated 1,302 persons, and made 819 distributions of virus to the various counties, affording a probable total estimate of over 17,000 vaccinations. Notwithstanding this, he calculates that of the children born during the same period, not less than 63,000 remain unprotected from small-pox. It is, however, gratifying to know, that vaccination in any way is diffused among the people under intelligent supervision.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, Medical Appointments and Trials, Hospital and Society Meetings, important Inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, FEBRUARY 18TH, 1871.

THE CURABILITY OF INSANITY.

IT has been made a subject of complaint against the public lunatic asylums of this country, that they do not adequately promote the recovery of their inmates, or attain to curative results at all commensurate with the expectations which led to their creation, the cost which they entail upon the ratepayers, or the opportunities which they enjoy. In the somewhat indiscriminate and virulent attacks which were made upon these establishments during last year, this charge was frequently repeated, without eliciting any protest or contradiction. It may have been that it was lost sight of amongst the more pressing accusations by which it was accompanied, or that the axiomatic form which it was cunningly made to assume secured its reception as a recognised fact, when it was only a mere vague assertion. At any rate, none of those who might have been supposed to be best informed in the matter, and most interested in the diffusion of just views respecting it, attempted to rebut the accusation. No asylum medical officer uttered a word of comment, or ventured to dispute the damaging allegation which implied the practical inefficiency of his department. Under these circumstances, which have seemed to us unfortunate, we have taken upon ourselves to inquire into the question. Having always had doubts as to the justice and accuracy of the imputation against our asylums to which we have been referring, we have examined, as far as was practicable, into its foundation and supports, with the agreeable result of satisfying ourselves that it is a very baseless fabric. Our investigation of the subject has convinced us that the alleged incompetency of our public asylums is only a literary lampoon; that a vast amount of good and efficacious medical work is being carried on in them; and that our brethren in this branch of practice have no cause to feel ashamed of the character or fruits of their professional labours.

A mere superficial glance at statistics would perhaps scarcely appear to justify our conclusion. Any one looking over a file of asylum-reports would notice that the average rate of recovery recorded is only about 40 per cent. of the admissions—ranging from 19 per cent. in some asylums, in which the house-steward is the presiding genius and major domo, up to 55 per cent. in others, in which paramount medical authority is maintained. This discovery might at first seem to invalidate our statements, and to be of a highly discouraging description. To find that, of every hundred lunatics received into our public asylums, only forty are restored to reason and liberty, might well be regarded as a painful revelation, if considered apart from various qualifying circumstances. If the admissions into our public asylums consisted altogether of cases of mental derangement of recent origin, it would certainly be discreditable to the management of these asylums to fail in securing recovery in 60 per cent. of such admissions. The fact is, however, that recent cases, as they are termed, constitute in every public asylum a comparatively small proportion of the admissions, the bulk of which consist of chronic and hopelessly incurable lunatics, or of patients in whom the mental aberration has existed for a considerable time, and survived ordinary treatment. There appears to be a conspiracy to prevent asylums from receiving curable lunatics, and to prevent curable lunatics from receiving appropriate treatment until they have become incurable. A sojourn in an asylum leaves behind it a ban and disqualification which the relatives of the insane are unwilling to incur. There is amongst the ignorant a want of confidence

in asylum-administration, which the late agitation has done much to foster and propagate. A fear is entertained that the incarcerated insane are not kindly treated; a belief is cherished that restoration to reason may be obtained by home-treatment; and hence the insane are not sent to asylums until hope and patience are exhausted, or until some overt act has been committed. Then, a lunatic in an asylum costs ten shillings a week, while he can be supported in the workhouse for five. To a mind trained in the traditions of the Poor-law, or imbued with political economy of the Trafalgar Square type, this is an eloquent fact; and so guardians and their officers, with whom the removal of a lunatic to an asylum really rests, postpone it as long as possible, and often avoid it altogether. Many cases of insanity in which the symptoms are of a mild kind, and in which, therefore, remedial measures would be especially influential, are detained in workhouses or at home until violent or troublesome propensities are developed—until the best chance of recovery is irretrievably lost. Thus it comes about that asylums receive only the *élite* of lunacy, and begin treatment where it ought to have been left off. The general practitioner has tried his hand; the local panacea has had its turn; spiritual advice, or exorcism, or quackery, has done its worst; the healing power of time has been invoked: all these have failed, and then the asylum is resorted to as a desperate expedient, a forlorn hope.

But, besides the chronic and confirmed character of many of the patients admitted into asylums, there are other conditions which limit the operation of any curative influences which they may exert. Flesh is heir to many ills and infirmities which we pronounce fatal and irremediable, but which are not therefore *opprobria* to medicine or surgery. There are many bodily deformities and diseases which we can never hope to be able to rectify or control. There are others which we shall have no power to modify or arrest until our science has made inconceivable advances upon its present position. And so it is with some mental defects and disorders. Until we have devised some means of expanding "the narrow forehead of the fool", idiots will still be idiots. Until we have discovered the elixir of perpetual youth, old men and women will sink irrecoverably into second childishness. Until we can mitigate the primal curse and obviate the return of dust to dust, we shall still have human folly and vice resulting in irreparable organic decay. Large numbers of the patients admitted into public asylums are included in the categories of incurables thus indicated. We must recollect that asylums are bound to accommodate all lunatics sent to them. They give no preference to pet maladies, and reject none because of their intractability. They receive the doomed and the dying, as well as the recoverable.

An asylum medical officer has favoured us with an analysis of five hundred consecutive admissions into a county asylum, which enables us to estimate the proportion of incurable cases admitted into such institutions, and which throws much cheering light upon the practical results of the system of treatment at the present time pursued. According to this analysis, of 500 lunatics admitted in a period short of two years, 195 were found, when admitted, totally incurable, and beyond the reach of anything but palliative treatment—for the following cogent reasons: 14 were congenital idiots or imbeciles; 15 were above seventy years of age; 42 were in various stages of the euthanasia of general paralysis; 24 laboured under organic disease of the brain, with other forms of paralysis; 52 were epileptics of more than five years' standing; 26 were recognised lunatics of more than five years' standing; and 22 were affected by well developed phthisis pulmonalis. Of the 305 patients not included in any of these classes, many were close upon seventy years of age; many were epileptics and lunatics, in whom their maladies, although not of the full term of five years' duration, might still be looked upon as so firmly established by use and custom as only to be eradicated when life itself was torn up; while others were affected by visceral and constitutional diseases which would have been pronounced necessarily mortal, but which could not be taken into account in the general summary given above. We find thus, that, of 500 lunatics received into an asylum, fewer than 300, or under 60 per cent., could, on

the most liberal construction, be counted as curable or amenable to treatment.

The second part of the analysis which we have before us deals with the results of the treatment of these same 500 patients up till the time at which the analysis was made—that is to say, within two years of the admission of the first of the 500. Here we find that 212 had been discharged recovered; that 14 had been discharged relieved; that 100 had died; that 51 remained under treatment, in an improved state; and that 123 had become worse, and were declining towards dementia or death. Bearing in mind that less than 300 of the patients involved in the analysis could, even in the most sanguine calculation, be deemed amenable to treatment, we must regard these results as very satisfactory. Of these 300, about 70 per cent. had been cured, and 5 per cent. relieved; while 17 per cent. were reported as improving. A note appended to the analysis intimates that all the 212 patients discharged recovered had been submitted to careful medical treatment; so that the credit of their cure cannot fairly be ascribed to moral influences or a fortuitous combination of events.

In the presence of facts such as those which we have just cited, it is impossible to entertain any doubt that our public asylums are really doing good and useful curative work. The charge of incompetency has been brought against them on insufficient evidence, and in a spirit of universal censure which we cannot commend nor countenance.

THE town of Colsterworth, in Lincolnshire, rejoices in two, and only two, medical practitioners, one named Priest, the other Heaven.

COLONEL HENDERSON has issued an order for the revaccination of the police force.

WE understand that the Obstetrical Society of London has resolved to subscribe ten pounds towards the memorial of the late Sir James Simpson, Bart.

DR. PAUL FRANK, who has been in charge of the English ambulances at Sedan and Meaux, has been summoned from England to attend General Bourbaki.

THE Middlesex and University College Hospitals have just received through their bankers an anonymous and munificent contribution each of £1000.

THE good-service pension of £100 a year, vacated by the death of Dr. John Wilson, has been awarded to Dr. James Wingate Johnson, retired Inspector-General of Hospitals.

THE Lying-in Hospital, Endell Street, after having been thoroughly cleansed and disinfected, was reopened for the admission of patients on Monday.

THE Duke of Beaufort has been appointed President of the Bath Mineral Water Hospital for the ensuing year, in succession to the Bishop of Bath and Wells.

THE Government will not introduce this year any measure for the prevention of the adulteration of food, drink, and drugs; but an endeavour will be made in the Licensing Bill to lessen the prevalent adulteration of liquors. Mr. Muntz undertakes the subject of the adulteration of food and drugs in a private bill.

SMALL-POX broke out simultaneously with the arrival of the French prisoners in Glatz, and attacked twenty civilians, of whom four—unvaccinated infants—died. The disease has also appeared in the districts surrounding Glatz, and in Frankenstein.

WE regret to announce the sudden death, on the 2nd instant, of Mr. Robert Cameron, who had been for several years Resident Medical Officer at the York Dispensary. The cause of death was extensive disease of the heart. Mr. Cameron was a man of considerable strength of character, and will be missed with regret amongst a large number of the poor in York.

SIR WILLIAM FERGUSSON will, it is expected, tie the subclavian artery on Saturday, Feb. 18, at 2 P.M., at King's College Hospital, and Mr. Henry Smith the external iliac artery.

DR. FARQUHARSON, it is announced, has resigned his position as Medical Officer of Rugby School. The prospects of the School are by no means so bright just now as they were under Dr. Temple; and we hope that it will be found possible to fill Dr. Farquharson's place with an equally good man.

THIRTY-TWO Russian surgeons were, at the beginning of the war, sent to afford voluntary aid in the German armies under the direction of Professor von Hübner, who, with eight of them, was stationed at Epernay. The remainder were attached to various ambulances in France and Germany. Nineteen of them have remained at the seat of war.

As a supplement to the last paragraph but one of the memorandum recently issued from the medical department of the Privy Council on lymph-supply for revaccination, which we published last week, we may state that "a list of the district public vaccinators and district public vaccination stations in London" has been printed for circulation by the medical department of the Privy Council.

REVACCINATIONS are being carried out on the largest scale in London. We believe that Dr. A. Vintras is making arrangements for animal vaccination, with matter from the calf. The deaths from small-pox in London have arrived at 211, the highest point yet reached. Seventeen persons are said to have died from small-pox in Whitmore Terrace, Hoxton, during the past week. In nearly every case the deceased persons had not been vaccinated.

THE MIDDLESEX HOSPITAL.

A MUSICAL and dramatic entertainment was given by the assistants of Messrs. Marshall and Snelgrove, at St. George's Hall, Langham Place, on the 4th instant, in aid of the funds of the Middlesex Hospital.

THE PROFESSION AND THE TELEGRAPH.

AT the last monthly meeting of the Town Council of Wrexham, Mr. Thomas Eytou Jones, Surgeon, stated that, in consequence of there being no direct telegraphic communication with the towns mentioned below, great inconvenience was occasioned—in one instance, recently, twenty-four hours having been occupied in transmitting a telegram only a few miles; and, upon his motion, it was resolved, "That a memorial be presented by this Council to the Postmaster-General, praying that direct telegraphic communication be established between Wrexham, Llangollen, Corwen, Bala, Dolgelly, and Barmouth; and that special facilities be given for the delivery of all telegrams to medical practitioners."

A FAT KIRKYARD.

MR. P. H. HOLLAND, Medical Inspector at the Burial Acts Office, writes as follows in reference to an article on this subject which appeared last week.

"In your notice of the complaint of nuisance at the Burmantofts Cemetery, Leeds, you drew the very natural but incorrect conclusion that it arose from the ground being too full of dead; whereas, as I was assured, it was the consequence either of an accident or an act of individual carelessness. The cemetery is very far from full; and the regulations for burial in it have, in consequence of my inquiry, been improved. Mr. Ikin, therefore, whose published letter called attention to the case, has done good service by writing it; and the inquiry it caused will, I trust, prevent a repetition of such an occurrence. I gladly take this opportunity of thanking him, and of requesting my professional brethren or others, who may become acquainted with similar occurrences, to communicate with me. There is no occasion, if it be objected to, that I should name them as my informants, if they will refer me to any trustworthy witnesses to whom I may apply for information. It often happens that those who cannot properly volunteer their evidence, feel no difficulty in giving it if asked for."

A CURIOSITY IN MEDICINE.

It is difficult to say why the people of Hampstead should be so anxious to depreciate absurdly and irrationally their own property by spreading wild stories about the dangers of the Small-pox Asylum. A most authentic case of small-pox was recently announced in all the papers, as having been traced to the hospital. A man had gone to the gates of the hospital, and had sickened with small-pox two hours after his return home. This was a case of very rapid incubation, and would deserve to be noticed among the curiosities of medicine.

THE SEWING-MACHINE.

SOME interesting illustrations of the effects of this now extensively used instrument on the health of its female operators have occasionally been published. These having come under the notice of an esteemed member of the Association engaged in extensive practice in the west of England, he has sent us the following curious details.

Name.	Age.	Occupation of husband.	Number of years married.	Number of children.	Number of years without pregnancy.	General state of health.	Period of delivery of a healthy living child after first using a machine
Mrs. A.	33	Clergyman.	13	1	10	Very good.	Within 14 months.
Mrs. B.	38	Sailor.	15	2	7	Good.	Within 15 months.
Mrs. C.	39	Tailor.	17	2	8	Good.	Within 18 months.
Mrs. D.	42	Hind.	22	1	20	Very good.	Within 18 months.

Dr. Decaisne (*L'Union Médicale*) states, after a careful investigation of six hundred and sixty-one female operatives upon the sewing-machine, that they were not more subject than other working women to metrorrhagia, peritonitis, miscarriage, and leucorrhœa; and that the cases which had been reported were evidently simple coincidences and the results of labour too severe for the women's strength. As regarded the machines with the women and motive agent, those with isochronous pedals were preferable to those with alternate pedals. In this way the operator was guarded from any excitation.

THE PHARMACEUTICAL MONOPOLY.

THE following proposed regulations as to the keeping and dispensing of poisons have been approved by the medical officers of the Privy Council.

1. In the keeping of poisons, each bottle, vessel, box, or package, containing a poison, shall be labelled with the name of the article, and also with some distinctive mark indicating that it is poison.

2. Also, in the keeping of poisons, each poison shall be kept on one or other of the following systems; viz., (a) in a bottle or vessel tied over, capped, locked, or otherwise secured in a manner different from that in which bottles or vessels containing ordinary articles are secured in the same warehouse, shop, or dispensary; or (b) in a bottle or vessel readily distinguishable by touch from the bottles or vessels in which ordinary articles are kept in the same warehouse, shop, or dispensary; or (c) in a bottle, vessel, box, or package, kept in a room or cupboard set apart for dangerous articles.

3. All liniments, embrocations, and lotions, containing poison, shall be sent out in bottles readily distinguishable by touch from ordinary medicine bottles; and there shall also be affixed to each such bottle (in addition to the name of the article, and to any particular instructions for its use) a label giving notice that the contents of the bottle are not to be taken internally.

In these regulations Mr. Simon has very wisely insisted on the introduction of the third series. With the perfectly characteristic selfishness which is common to all corporations, the Council of the Pharmaceutical Society had omitted them. They wished to protect the chemist, but were willing to leave the door as widely open as ever to all the calamities which spring from carelessness or ignorance of persons dealing with medicines once dispensed, although well knowing that this is a sadly fertile source of accidental poisoning. Such a course is peculiarly shocking to the conscience; and it is well that the Privy Council retained its power of guarding the public safety, which the Council of the Pharmaceutical Society were perfectly willing to throw overboard, apparently regardless of the sacrifice of life, provided that they could

make a show of activity and save their privileges, while they conciliated their constituents. In this their conduct seems to us deserving of very severe and enduring censure. It will be satisfactory to the medical profession and to the public to learn of any mitigating circumstance. These regulations, however, are likely to meet with serious opposition from chemists who wish to pursue their business without regulations, and are unwilling to recognise any moral duty of the many to submit to precautionary measures which the few already voluntarily adopt. We may warn these gentlemen that prolonged opposition will end in more complete restriction. The adoption of such precautions was part of the parliamentary understanding on which they were secured a monopoly of the pharmaceutical trade; and the public safety demands them. The weakness of the Pharmaceutical Society's action in this matter lies in the anomalous and composite character of the Society. It is at once a trade-union society, aiming at the protection of trade interests, and a governmental regulating body, empowered to make binding regulations in the interest of the public; a school at which teaching is carried on for profit, and an examining body which gives diplomas to its own pupils, and enjoys a monopoly of that business in England. This fourfold capacity includes doubly conflicting duties; and it is obviously only by the utmost discretion, and a willingness properly to abandon the exclusive consideration of trade interests where they conflict with public safety and welfare, that this Society can be allowed to hold in its custody duties and privileges which have very rarely been consigned to one body. An obstinate resistance to the demands of the Privy Council must lead to the recasting of the pharmaceutical monopoly, under conditions which will insure that attention to public safety which is at present intrusted to the good sense and good feeling of the members of the Pharmaceutical Society.

THE TOLERANCE OF DR. TYNDALL AND MR. HUXLEY.

DR. LIONEL BEALE writes to us:

"You have twice directed attention of your readers to some unphilosophical remarks which the Professor of Natural Philosophy in the Royal Institution of Great Britain, the successor of Faraday, has thought fit to make in a book he has recently published. It may be important the profession should know, and it is desirable the fact should be recorded, that 'tolerance', and of a particular kind, has been extended both by Dr. Tyndall and Mr. Huxley to one among many who, as the former observes, *foolishly (!) try to support or oppose the fiery-cloud-origination hypothesis*. Dr. Tyndall says: 'Both Mr. Huxley and myself have long practised, and shall, I trust, continue to practise, tolerance' with reference to one conspicuous member '*of the class of microscopists, ignorant alike of philosophy and biology, a Doctor of Medicine, lately Professor in a London College famous for its orthodoxy*'! (*Use and Limit of the Imagination in Science*, p. 49.) Let us not attempt to restrict in any way the liberty accorded to 'privileged spirits'. As Dr. Tyndall observes, freedom to them is of paramount importance. They must have liberty to speak openly; and, if they tolerate the 'weaker brethren', all may be thankful. What would have happened if Dr. Tyndall and Mr. Huxley had not practised *tolerance*, and what would happen were they not to continue to practise tolerance, with reference to the 'Professor in a London College famous for its orthodoxy'?"

THE HAMPSTEAD SMALL-POX HOSPITALS.

A MOST unnecessary and groundless panic exists in Hampstead on the subject of the Asylum Board Small-pox Hospital. It is singular that the small-pox hospital at Highgate is regarded with much equanimity, and that the Fever Hospital in the Liverpool Road, with 400 patients on an acre and a half of ground, pent in by houses on all sides, finds equal favour; but the Asylum Board Hospital, a model of cheapness, a specimen of most excellent hospital architecture, and standing in eight acres of ground on a breezy hill, is denounced as a pest-house. The same speakers whose imagination is so much troubled with the purely hypothetical dangers of the Hampstead pest-house, as they euphoniously describe it, suggest with great earnestness that its place should be taken by smaller and much more numerous asylums dotted about all over London in its most crowded parts, so as to bring the hospital to the patients' doors. The proposition is more ingenuous than logical: "anywhere, anywhere out of our bounds," is a cry too

childish to need refutation. The asylum managers are among the best abused men in London just now. It is rather hard that they should serve the State in the peculiarly unpleasant functions which they have consented to fulfil, and that, after really doing their work with uncommon skill, good judgment, and uncompromising honesty, they should be abused for the faults of every one else and get no credit for their own good deeds. Time will bring adequate appreciation of their really valuable labour.

UNIVERSITY COLLEGE HOSPITAL.

WE believe that Dr. A. W. Edis and Dr. Heywood Smith are additional candidates for the appointment of Assistant Obstetric Physician to University College Hospital.

HUNTERIAN SOCIETY.

AT the annual general meeting of this Society, held on the 8th instant, the following officers were elected for the ensuing year:—*President*: D. De Berdt Hovell, Esq.; *Vice-presidents*: T. Bryant, Esq., J. Hughlings Jackson, M.D., R. Fowler, M.D., and C. F. Maunder, Esq.; *Treasurers*: T. M. Daldy, M.D., and T. Brown, Esq.; *For the Oration of 1872*: J. H. Jackson, M.D.; *Librarian*: R. Fowler, M.D.; *Secretaries*: J. J. Phillips, M.D., and J. E. Adams, Esq.; *Council*: H. Berry, Esq., F. G. Brown, Esq., M. Brownfield, Esq., P. L. Burchell, M.B., W. Carr, M.D., E. Clapton, M.D., W. Clapton, Esq., H. J. Fotherby, M.D., J. Hutchinson, Esq., S. Jones, Esq., W. Moxon, M.D., and W. Rivington, Esq.

BRITISH COMMISSIONERS IN PARIS.

WE are happy to hear that Deputy Inspector-General Dr. Gordon, C.B., and Surgeon-Major Wyatt, of the Coldstream Guards, who were accredited to the French Government, and have remained in Paris throughout the siege, are both in excellent health. They have collected voluminous records of matters of professional interest during their seclusion from the outer world. These records include copious notes on the injuries of the wounded received into the Parisian hospitals, military and volunteer; on the surgical operations performed, and their results; on the transport arrangements from the outworks and after the different sorties; on the system adopted for providing food of the requisite quality and variety; on the steps taken to preserve the health of the population throughout the siege; together with numerous observations on a variety of allied subjects, which, when published, cannot fail to prove a valuable store of materials for study and reference, not only to army medical officers, but also to members of the medical profession in general.

THE PRIZE ESSAY OF THE PRUSSIAN NATIONAL SOCIETY FOR AID TO SICK AND WOUNDED.

ON the occasion of the International Conference of the Societies for Aid to Sick and Wounded in Time of War, held at Berlin in 1869, a prize of one hundred frederics d'or was offered for the best essay on the possibility of applying the principles of the Convention of Geneva to maritime warfare. The International Bulletin, just published at Geneva, announces that the prize has been awarded to an essay, written in English, bearing the motto, "Cast thy bread upon the waters, for thou shalt find it after many days". The sealed packet bearing the same device was opened, as agreed upon, on the anniversary of the birthday of the Queen of Prussia, the 30th of last September, and the signature of the writer was found to be T. H. Ferguson, of Arouba, Guiana.

PROFESSOR WILSON'S LECTURES ON DERMATOLOGY.

IN the opening course of lectures which Mr. Wilson gave last year at the College of Surgeons on skin-affections, he occupied himself entirely with the subject of classification and definition. These lectures, just published by J. and A. Churchill in a collected form, after appearing in the columns of our contemporary, the *Medical Times and Gazette*, form a very complete synopsis, and the book supplies a finished *index rerum et*

verborum. This year Mr. Wilson enters on the therapeutical question; and, believing this part of the subject to be of especial interest to practitioners, we have arranged to publish abstracts of the lectures, which will have the advantage of being prepared from the author's manuscript and corrected by his hand.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

THE next meeting will be held on Saturday, February 18th, at 7.30 P.M., at the Scottish Corporation Hall, Crane Court, Fleet Street; Robert Druitt, M.R.C.P. Lond., F.R.C.S., President. The discussion on Dr. Robert Barnes' paper on the question—"How far is the Present Prevalence of Small-pox to be attributed to the plan recently introduced of limiting the number of Public Vaccinators?" will be resumed by the President reading a short paper on "Re-vaccination." The adjourned discussion on Dr. T. Spencer Cobbold's paper, entitled "Entozoa in relation to the Public Health, especially as regards Sewage Irrigation," will be resumed by Dr. Letheby; previously to which Dr. Cobbold will read a supplementary paper "On Sewage and Parasites, especially in relation to the dispersion and vitality of the Germs of Entozoa."

THE VACCINATION ACT.

IT is very evident that some amendment is necessary in the working of the Compulsory Vaccination Act. Two persons at Bridgwater this week, having contumaciously refused to obey the order of the magistrates and submit their children to vaccination, were informed that they were guilty of "contempt of court"; and there the matter ended. Lest so dreadful an announcement should prove too much for the feelings of the culprits, it was carefully explained by the mayor and the solicitor that "it was only a technical contempt, and not in the other sense." If these children should now catch the small-pox and die, or should become hereafter at once the victims and the carriers of contagion, it will probably appear that the contempt of law and safety is real, and not technical. At any rate, the Vaccination Act, 1867, is proved to be inefficient as a means of compulsion; and it is satisfactory that Mr. Forster has got a Committee appointed to report upon its operation, and whether it should be amended.

THE HOSPITALS OF LYONS.

THE report for 1869 on the condition of the hospitals in Lyons has lately appeared. The total expenses during the year amounted to 3,150,308 francs (£126,012:6:8); the balance of receipts over expenditure was 65,302 francs (£2612). The average daily expense of a patient in hospital was 1 franc 63 centimes (about 1s. 4d.) During the year, several changes were made, of which the following are the principal. The mortality from phthisis diminished notably at the Hôtel-Dieu, falling from 396 in 1866 to 154 in 1869. Whether this was merely an accident, or the result of a real diminution of the disease, cannot as yet be determined. In the Hôtel-Dieu, there has been a general decrease of mortality since 1867; this is believed to be a result of the sanitary measures which have been adopted. It appears that cataract is a very frequent disease among hospital patients in Lyons—"qui viennent par centaines"; and M. Gayet insists strongly that wards should be appropriated to such cases. At the Croix-Rousse, the mortality from phthisis increased rather than diminished. At the Antiquaille, cases of gonorrhœa and syphilis had abounded; but simple chancre had diminished in frequency. This is attributed to the efficacy of sanitary visits, which enable diseased women to be discovered and treated until they are cured. No patient who can pay 1 franc 25 centimes (about one shilling) a day, is admitted to the free wards of the Hôtel-Dieu. "This," says M. Aubert in the *Lyon Médicale*, from which we take the foregoing abstract, "is well; but there appears to be no means of determining whether any patient who presents himself is really indigent. I have often seen in a gratuitous bed a country proprietor who could perfectly well afford to pay."

SCOTLAND.

THE remains of the late Dr. Keith have been honoured by a public funeral in Aberdeen. The students and professors of the University were present.

THE SALE OF THE OLD EDINBURGH INFIRMARY.

THE managers of the Edinburgh Infirmary had under their consideration on Monday the subject of the sale of the old buildings to the University. They are averse to entering the law-courts in opposition to the interdict which has been lodged against the bargain, and think that the Senatus, as being most interested, should take up the matter. This proposition the Senatus have asked time to consider.

THE LADY STUDENTS AND THE INFIRMARY.

IT will be remembered that the question of admitting lady students to the wards of the Infirmary for clinical instruction was left, by the decision of the general body of contributors, to the discretion of the managers. A deputation of gentlemen waited on the managers on Monday for the purpose of pressing the matter on their favourable attention. The managers resolved to take the matter into consideration at their next meeting.

FEVER AND SMALL-POX IN GLASGOW.

OUR Glasgow correspondent writes :—There has been of late a slight decrease in the number of cases of fever reported, but at the same time the cases of small-pox have considerably increased in number. At the beginning of this week, the total number of cases of fever, including typhus and relapsing fever, was 884, while there were 89 cases of small-pox. The great majority of the fever cases, and the whole of those of small-pox, are accommodated in hospital. The two hospitals in the city contain at present 585 cases, of which 250 are at the old hospital, and 335 at the new one at Belvidere. Of this number, the great bulk is made up of relapsing fever, there being 467 of this fever, and 51 of typhus, with 67 of small-pox. Of the 89 cases of small-pox, all of which are in hospital, 22 are in the Infirmary, and 67 in the Fever Hospital in Parliamentary Road. An arrangement has been come to between the Directors of the Infirmary and the Police Board, by which all the cases of small-pox shall be treated in the fever-hospital; so that, though there are still 22 cases in the Infirmary, these will gradually diminish, as no new cases will be admitted. In view of the considerable spread of small-pox in the city, steps have been taken by the authorities, in order to see that vaccination is rigidly attended to. Recommendations have been communicated from the medical officers of the sanitary board to the various parochial boards; and we understand that meetings will be held soon to consider the recommendations. These contain instructions for the vaccination of infants in affected localities who are under the age enforced by law, and of others who may, for any reason, have escaped vaccination, as well as for the revaccination of such as may desire it. It may be stated, in conclusion, that we believe that a very considerable number of cases of small-pox exist in the better classes of the community, which of course do not come under the notice of the Police Board, and that the numbers given above do not accurately represent the entire cases in the city.

IRELAND.

THE Inspectors-General of Prisons have recently refused to allow any pension to the apothecary of the Limerick Gaol, after thirty years' service. There have been complaints; but, if the officer were continued in his office thirty years, these complaints cannot fairly disentitle him to superannuation on leaving it. They seem to have treated the physician, Dr. Gelston, without due courtesy.

WE regret to announce the decease of Dr. W. J. Geary of Limerick, Inspector of Medical Charities since 1852, an office which he filled with credit and satisfaction. Dr. Geary had filled the office of Mayor of Limerick, with much satisfaction to his fellow-citizens.

DR. R. P. GELSTON has been elected Assistant Resident Medical Superintendent of Clonmel Lunatic Asylum. Dr. Ireland, late Surgeon R.N., was also a candidate, and received nine votes, Dr. Gelston receiving eleven.

QUARANTINE AT QUEENSTOWN.

THE quarantine laws evidently need a little revision in their application to British ports. The *Valkyria*, from Liverpool for Havana, put into Queenstown with a severe outbreak of small-pox. If the case had been that of yellow fever or plague, or some other disorder unknown or obsolete in these parts, quarantine would have been enforced; but for a disease so homely, frequent, and fatally contagious, as small-pox, there is no power of enforcing quarantine, nor any harbour hospital provision.

SMALL-POX IN IRELAND.

A CIRCULAR just issued by the Poor-law Commissioners on this subject contains the information that small-pox has broken out in Belfast and Drogheda, and in some cases fatally. The circular traces the disease from Glasgow, Liverpool, and South Wales; and proceeds to state that the contagion has gained a footing in Belfast, where vaccination had been neglected by the guardians, and appears to travel to neighbouring towns. At Drogheda, the disease had recently assumed a serious aspect in a community of nuns called the Sienna Convent, of whom no less than seven ladies and as many boarders had been attacked—one of the former dying from the attack. The fatal case was that of a lady who had not been vaccinated; but the source of the contagion could not be discovered, and all the others had been vaccinated. In a part of Drogheda quite distant from the convent, seven cases had occurred, one being fatal—that of an unvaccinated person. In three of them, the patients had been vaccinated; but the four others had not. In Belfast, there are at present seventy-four cases of small-pox under treatment; but within the fortnight the number had decreased by six, although new cases are daily reported. There are some patients included who at some previous time had been successfully vaccinated. The disease in such cases had almost invariably been of a mild type, from which it is inferred that vaccination was not an absolute protection against small-pox, but rather that its influence wears out in the course of time; and the Commissioners, therefore, recommend all persons to undergo revaccination at intervals, say of ten years. The circular winds up with a summary showing, by the Registrar-General's returns for the quarter ending September 30th, there had been four deaths in the country, all from the outbreak in Belfast; and expressing a fear that the returns for the last quarter of the year and the current quarter will exhibit an increase.

OUR Dublin correspondent writes :—Few deaths amongst the ranks of the profession have caused more regret than that of Dr. Hill, who has been Poor-law Inspector for the Leinster Province since the passing of the Medical Charities Act in 1851. He had been previously Demonstrator of Anatomy in the Dublin University. The courtesy he has displayed towards his brethren was shown by the presentation of a service of plate by them in 1868, when, according to the new plan adopted by Lord Mayo, he ceased to be a specially medical inspector. Unless the present Government reverse this arrangement, any one unconnected with medicine may be appointed to the vacancy, and will have to supervise the treatment of disease, supply of drugs, etc., of the various dispensary and workhouse physicians in the district.—About six cases of very mild varioloid have appeared in Dublin. In one instance, the girl first attacked was in the habit of unpacking delf from Liverpool, and thus the contagium may have been conveyed.

THE FIRST SANITARY TRAIN FROM BERLIN.

II.

IN leaving Pont-à-Mousson on the morning of Oct. 8th, Dr. Virchow could obtain no other conveyance than an ordinary country waggon, which was being used for carrying artillery; his train, which had gone to Nancy, having left that place and passed through Pont-à-Mousson while he was engaged in again visiting the hospitals at the latter place. In travelling, he met with a Westphalian train under the charge of Professor Landois of Greifswald, which had been supplied in the morning from Professor Virchow's stores. At Ars-sur-Moselle, the lazareths were inspected; and a number of wounded were selected for removal. In the meantime, Staff-Surgeon Schickert arrived from Gravelotte with a train full of wounded intended for Professor Virchow's train; the patients had to be laid until the morning in the half-open market-hall. Professor Virchow and his staff then proceeded to Gravelotte. As they approached the place, a most offensive smell of putrefaction became perceptible, in consequence of a severe storm of rain and wind which then occurred. In Gravelotte itself, the houses of which appeared to have suffered very little, there was a great demand for supplies. Half of the port wine and half of the bitter liqueurs were given to the lazareth, which was almost destitute of the better wines and of spirits. And, indeed, this supply was necessary. The six large hospital-tents provided for the wounded were pitched on the bare ground. During the storm, the rain had come in through every hole; and the patients, most of whom were severely wounded, and very sensitive in consequence of their feverish state, had had their beds collected into the few dry places. The staff-surgeon in charge recompensed Virchow with a warm dinner, which he and his staff ate in a cold dark room; they had hot soup with extract of meat, dried fruit with bacon, and coffee, which they drank by means of large spoons from small bowls.

Professor Virchow next passed Meierhof, Malmaison, and Verneville. In this journey, the travellers were met by Baron von Zedlitz, a Knight of the Johanniter order; from whom they heard for the first time of the sortie made by Bazaine on the previous day. On arriving at Verneville, Professor Virchow was informed by General Surgeon Abel that a telegraphic despatch had been sent a quarter of an hour previously, asking how many wounded he could convey. Everything was soon got ready. In the evening, half of the supplies brought in the train were given over, part to the men of the 24th Regiment, and part to the paymaster of the corps; and the waggon hastily proceeded on its way back. The storm, which still continued, drove the rain into the faces of the passengers like a shower of sand. At midnight they reached Novéant, where their train was.

On the morning of the 9th, two carriages were sent to Pont-à-Mousson, where Professor Hüter had undertaken to take charge of their lading. Professor Virchow arranged to go with three others to Ars-sur-Moselle; and the remaining five were to be filled on the following day in Novéant.

In this place, Professor Virchow discusses the question how it was possible that no shelter was provided for the wounded, notwithstanding that, up to the morning of the 8th, there was every probability that it would be required. In fact, Professor Virchow was in doubt whether he would not have to fill at least one or several carriages with patients suffering from internal diseases. These were so numerous, that there was not sufficient room in the train for them. The Seventh Army Corps alone had seven thousand sick. To his surprise, he found that the dépôt of the Johanniter, as well as that of the lazareths, were abundantly supplied with mattresses and woollen coverings; and from both he readily obtained supplies to furnish his carriages. He was thus not only able to supply his eleventh carriage—which at first had not been intended for the transport of the wounded—but also to send a telegraphic message to Weissenburg for fifteen carriages, which had been left there to be sent on. Unfortunately, the surgeon who was to bring them, did not announce his arrival in Pont-à-Mousson till Professor Virchow was on the point of starting. An order, however, was sent him in Weissenburg to proceed to Novéant and bring away the wounded. Up to Professor Virchow's return, the idea had prevailed among the evacuation-commission, that the wounded had all been sent forward; and this idea was only shaken by the reports which Professor Virchow brought from Marie-aux-Chênes, Gravelotte, and other places. Although probably further removals of the wounded had taken place, the Berlin train had already been required twice at Novéant.

Professor Virchow here remarks that there is evidently a fault of organi-

sation. There is not a sufficient understanding between the centre and the outlying stations; and the evacuation-commission is too far removed from both. In spite of the field-telegraphs, there is, he says, no supervision. It rests too much with individuals to determine whether this or that ambulance shall return to the Fatherland well filled with the wounded, or nearly empty. The mistrust and jealousy shown by the medical department of the Ministry towards private societies and individuals who undertake the removal of the wounded, can be understood. But it must also be acknowledged that these have laboured to do their best; and mistrust must disappear, if the aid-societies—as is the case in Berlin—place themselves at the disposal of the Ministry of War.

In order that a judicious use may be made of the sanitary trains, they ought to be capable of being sent from certain points accurately known at the outlying stations. Some of these points should be at a distance behind the army, so as to provide for a proper dispersion of the sick; others should be as near as possible. At Nancy, for instance, the Metz road should be watched, rather than that from Paris. If a sanitary train were stationed here, it could be brought up to any battle by a telegraphic message; and, if it were necessary to send on more trains, the importance of the arrangement described could not be lightly estimated.

The co-operation between the Ministry, the evacuation-commissions, and the *etappen*-surgeons-general, on the one hand, and the army and regimental surgeons, the directors of the field-ambulances, and the directing surgeons, on the other hand, must be intimate and regular, so that supervision may be exercised with ease and certainty. In Professor Virchow's opinion, the military management is complicated, and therefore clumsy.

It is the opinion of some that all the difficulties lie in the organisation. In fact, however, Professor Virchow says, the greatest real difficulties are in the carrying out of the plans. The stations are at too great distance from each other; such, for instance, as the distance from Berlin to Weissenburg, and thence to Metz. Even around Metz itself, single lazareths belonging to separate corps were at so great distances apart that one scarcely heard anything of another. If the fact that a bloody contest had been fought a few miles off on October 7th was not known in Gorze until the evening of the 8th, how can one wonder that little or nothing should be known to the south-east of Metz of what had been going on in the north-east?

Another difficulty lies in the question, When is a severely wounded man capable of being removed? Is it best to remove him immediately after he has received his wound? Is it permissible to send him on in certain later stages of disease or of convalescence? On these points, opinions differ much; and when it is remembered that a large number of learned surgeons, professors in almost all the German Universities, have accompanied the army as consultants, and that there are also civil surgeons with the army, whose opinion occasionally comes into collision with that of the military surgeons, it will be understood that the question of transportability will be answered in very different ways—sometimes in the way of compromise, sometimes as an expression of authority. The special interest of each case also comes into account. The individual surgeon or consultant likes to see what becomes of it, especially when he has operated. There is also a reluctance to expose patients to the dangers of a journey over which it is impossible to watch. When, then, the higher authority orders an evacuation to be made, obedience to the command is attended sometimes with advantage, sometimes with mischief.

It must be remembered that the necessity of removal is dependent not only on the nature of the case, but very frequently on that of the place, especially the condition of the lazareth. A lazareth may perhaps be badly situated; or its state may have become deteriorated by use, by the weather, or by the conditions surrounding it; or its situation may have become dangerous through new movements of the enemy. Suddenly, there is an order for its evacuation; and it is emptied of all, capable or incapable of removal. How often, in such a case as this, must mistakes be made, medical as well as strategic!

Professor Virchow had many differences of opinion with his professional colleagues; but he acknowledges that these were in no case the result of ill-will or of ignorance. One man, he says, considered his lazareth excellent, because it was much better than others, or than all in its neighbourhood. And yet there was a strong smell of offensive evacuations, even when it was possible to keep all the windows open. Professor Virchow would point out that the season of the year was far advanced; that perhaps it would not be possible much longer to remove the wounded; that in the cold weather the windows must be closed, and the air in the rooms be consequently rendered impure; that the ventilation of the railway-trains was excellent; and that the patients could be attended to much better at home. All this was admitted; but, in reply, it was urged that continued rest was important both for

the wounded and those who had been operated on; that ventilation could be secured in winter by means of fireplaces; that recovery made progress with each day; and that it was hard to give up the charge of a case which one had long known and treated.

MEDICAL REFORM.

DEPUTATION TO THE VICE-PRESIDENT OF THE PRIVY COUNCIL.

THE Reform Committee of the British Medical Association had an interview with the Right Honourable W. E. Forster, M.P., Vice-President of the Privy Council, in the absence of Earl De Grey, at the Privy Council Office, on Tuesday, the 14th instant. Mr. Forster was accompanied by Mr. Simon, the Medical Officer of the Privy Council.

Of the fifteen members of the Committee, twelve were present; viz., Dr. Charlton, Newcastle, President of the Association; Mr. Husband, York, President of Council; Dr. Falconer, Bath, Honorary Treasurer; Dr. Waters, Chester; Dr. Chadwick, Leeds; Dr. Sibson, Dr. Stewart, and Mr. Michael, of London; Mr. Southam, Manchester; Dr. Davey, Bristol; Mr. Heckstall Smith, St. Mary Cray; and Mr. Watkin Williams, the General Secretary.

Dr. WATERS, Chairman of the Committee, stated to Mr. Forster that the deputation consisted of the Reform Committee, which was appointed at the annual meeting of the Association held at Newcastle in August last, and that, with the exception of Mr. Whipple of Plymouth, Professor Hughes Bennett of Edinburgh, and the Rev. Professor Haughton of Dublin, all the members of the Committee were present. He read letters from the two latter gentlemen, expressing their entire concurrence in the action of the Committee, which, Dr. Waters said, was absolutely unanimous in regard to the views which it was desired to submit to the Government. The Committee, in the first place, wished to express their deep obligation, and that of the profession, to Earl De Grey and Mr. Forster for the time and labour they had devoted to medical reform, and their approval of the main feature of the Government Bill of last year, in seeking to establish the "one portal" for which the Association had been contending for more than thirty years. They regretted the modification in regard to the one portal which had been introduced in the House of Lords, but hoped to see the provision again introduced as in the original draft of the Bill. There was one feature of the Bill, however, which placed it out of the power of the representatives of the Association to allow it to pass unopposed—he referred to Direct Representation.

The VICE-PRESIDENT: Want of feature, you mean.

Dr. WATERS: Exactly so. This was held to be one of the main objects to be attained in any measure of reform; and, without it, he believed no measure would pass. He would not go again over the arguments and representations which had been previously submitted to the Government by two former deputations from the Association: he would merely state that, since the withdrawal of the Government Bill last session, every effort that could be devised had been made again to test the opinion of the Association on that point; and that it had been found unchanged. At the important large gathering at Newcastle, the question of direct representation was specially brought before the members of the Association. Five members of the General Medical Council challenged the action of the Direct Representation Committee in opposing the Bill; but, notwithstanding the personal esteem in which they were held, notwithstanding the eloquence and tact which they brought to the discussion, when the vote was taken, not more than two or three hands besides their own were held up in support of their view. In proof of the feeling of the profession, he referred to the hundreds of petitions against the Bill on this very ground, which were signed by some ten or twelve thousand members of the profession, and which had flooded the House of Commons during the week which preceded the withdrawal of the Bill. He also mentioned that the medical authorities in Ireland had recently decided in favour of direct representation, by a majority of eleven to one; the dissentient being, as was commonly found in all cases where progress was aimed at, one of the oldest members of the Medical Council, if not the very oldest. In these circumstances, the Committee hoped that the Vice-President would reintroduce his Bill of last session, with the restoration of the eighteenth clause, and the modification in the Medical Council proposed by the Association, and embodied in the amendments to that end which had been placed in his hands. There could be no question that, with the ground cleared as it had been during the past year, the Government would experience no difficulty in carrying the measure.

Mr. FORSTER replied, that it appeared that the measure of last year

seemed to be unsatisfactory, not for what it comprised, but for what it omitted; that a great deal might be said in favour of direct representation, though there were also arguments against it; that it was not for him to say what the Association should have done, but it struck him that it would have been better not to have opposed the Bill for what it did not contain, but to have accepted it, as had been proposed, on the understanding that the question of direct representation should be subsequently considered. At the late period of the Session which the Bill came down to the House of Commons, it was not possible to discuss this new feature with a fair chance of settling it. Owing to the length of time which certain business had occupied last year, in connection with which he feared he was, by the Irish Land Bill and the Education Bill, a culprit, there was a large accumulation of arrears of business; and the pressure of Government measures during the present session was consequently such that he could not hold out any hope undertaking the amendment of the Medical Act at present.

Mr. HUSBAND maintained that the Association could not, consistently with its avowed principles and objects, have pursued any other course than that followed.

Mr. FORSTER held that, had the Government measure been accepted, great progress in medical reform would have been effected.

Mr. MICHAEL observed that, if the Bill had been allowed to pass, one of the great points by which the necessity of reform was kept before the public would have been disposed of; and it would have been difficult to move Parliament on the other less popular but equally important question.

Mr. FORSTER said that the Bill had been approved of by corporations and bodies represented in the Council; that the Government had given their adhesion to it; that it had passed the Lords, and he had no doubt that, but for the opposition of the British Medical Association, it would also have passed through the other House and become law.

Dr. SIBSON asked whether, if a private member brought forward a Bill based on that of the Government, but embodying also the principles for which the Association contended, the Government would aid the passing of it?

Mr. FORSTER said that he had not a shadow of feeling of soreness on account of the opposition to the Bill of the Government, and that he would give such a measure, if brought forward, his most careful consideration.

Dr. WATERS said it was quite true that the members of the General Medical Council had passed a vote of thanks to the Government for the interest evinced in medical reform and for the Bill, but the majority of these corporations none the less used their most strenuous endeavours to oppose the Bill, and had actually petitioned for direct representation.

Mr. FORSTER repeated his opinion that, but for the opposition of the Association, the Bill would have become law. The Corporations failed in their opposition in the Lords, and would doubtless have failed in the Commons.

The Deputation thanked Mr. Forster for the frank and explicit manner in which he had expressed himself, and for the attention which he had given to their representations.

ALLEGED ABUSE OF MERCURY IN THE ARMY.

DR. W. RUTHERFORD of Edinburgh has addressed to us a long letter respecting Dr. Bennett's paper on the Injurious Effects which may follow the Use of Mercury in Hepatic Disease. We regret that the demands on our space prevent us from inserting the whole of Dr. Rutherford's letter. The subjoined abstract, however, contains all the main points.

Observing, says Dr. Rutherford, in your issue of the 4th instant a report "of certain proceedings which have lately occurred at meetings of the Medico-Chirurgical Society of this city, relative to the case of a discharged soldier, which has excited much interest here and elsewhere," I am induced to offer a few remarks, especially as the report alluded to is, in many respects, very inaccurate. I will give, as succinctly as possible, a *résumé* of the original statement of Dr. Bennett on introducing this case to the notice of the public, in his paper read before the Society on December 21st, 1870; and then I will give the statement made to me by the man himself, in presence of a credible witness, and other particulars of the case:

The man in question was stated to have contracted various diseases while serving in India—among them, remittent fever and liver-disease, the latter culminating in abscess. It was stated that for its treatment, in the years 1866-67, he had in India undergone no fewer than three courses of mercury; that, in fact, for nearly one year he had been kept almost uninterruptedly, more or less, under its influence, in consequence of which his teeth had become loose, his deglutition interfered with, and

his digestion impaired. Meantime, a seton had been inserted over the hepatic region, through the openings of which the contents of the abscess, in due time, escaped, part finding its way into the intestinal canal. In this stage, it did not appear that the mercury had been intermitted. The mercury and the seton, as far as I gathered, comprised the sole treatment. On May 31st, 1867, the man arrived in England as an invalid, and was admitted into Netley Hospital, where he was a fourth time salivated, apparently from the use of an ointment of iodide of mercury rubbed over his side. After about a month's detention there, he was discharged the service, and finally found himself under the care of Dr. Bennett. As may readily be imagined, he was reduced to a very low ebb from his grave diseases and their alleged remedies. His liver was much enlarged; the spleen also. There was a thick crop of rupiæ, with numerous ulcerations, especially on his back. He had an affection of one testicle, and was affected with rheumatism. The physical symptoms of phthisis were also present, indicated by dulness under one clavicle, cough, resonance of voice, and muco-purulent expectoration. He denied having had syphilis; although admitting that, when fifteen years old, he had contracted a gonorrhœa.

Dr. Rutherford goes on to state that, in his paper read before the Medico-Chirurgical Society on January 18th, he asserted that there was not the slightest pretext for this statement, for the following reasons.

1. The man stated that, while ill in India, he had "poultices and tincture of iodine to the side;" "medicine with a bitter taste from a bottle;" "taraxacum in pills;" but he did not say anything about mercury. He said that the only occasion on which his mouth had been made sore in India or anywhere else was once in Jhansi, when he had a sudden attack of vomiting and purging, for which he had two pills from a native compounder, and afterwards a draught; he became better, and next morning his mouth was very sore. He was not salivated. He did not know that the pills were ordered by a medical man. The man stated to Dr. Rutherford that he had a sore on the penis in Jhansi; and his "medical history sheet" states that he was in hospital thirteen days, and was treated without mercury.

2. Dr. Corbett, under whose care the man was at Kussowlie from April 1865 to November 1866, states emphatically that during that period he never had any mercury whatever.

3. Certified copies of the official reports of the man's case written at the time, contain no mention of mercury having been administered to him.

4. It is utterly improbable that any medical man would be so inhuman as to give mercury to a man, suffering from a complication of serious diseases, who had been sent as an invalid from the plains of India to a convalescent station.

During the man's voyage home, he had, he said, "bitter medicine," "acid drops," a blister to the side, good diet, wine, etc.; but not one word was said about mercury. This is fully borne out by the medical record of his treatment on board ship. The statement that he was again salivated after his admission into Netley Hospital, is distinctly denied by Dr. Maclean.

Dr. Rutherford then comments on and repudiates the statement of Dr. Bennett, that "thousands of our soldiers have been so treated, and have had their health irretrievably shattered." A similar statement, he says, was made a few years ago, and was pronounced by a most competent and impartial tribunal to be wholly unfounded.

ASSOCIATION INTELLIGENCE.

BATH AND BRISTOL BRANCH.

THE next meeting of the session will be held at the York House, Bath, on Thursday evening, March 2nd, at 7 o'clock; CHARLES BLEECK, Esq., President.

R. S. FOWLER, }
E. C. BOARD, } *Honorary Secretaries.*

Bath, February 8th, 1871.

METROPOLITAN COUNTIES BRANCH.

AN ordinary meeting of this Branch will be held at the Charing Cross Hotel, on Friday, March 3rd, at 8 P.M.; T. HECKSTALL SMITH, Esq., President, in the Chair.

Mr. Fairlie Clarke will read a paper on the Medical Aspects of Pauperism.

A. P. STEWART, M.D. }
ALEXANDER HENRY, M.D. } *Honorary Secretaries.*

London, February 9th, 1871.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT MEDICAL MEETINGS.

THE March meeting of members of the above District will be held on Wednesday, March 8th, at 3.30 P.M., at the Sussex Hotel, Tunbridge Wells: CHARLES TRUSTRAM, Esq., in the Chair.

Gentlemen willing to contribute papers, etc., will greatly oblige by letting me know at their earliest convenience.

Dinner will be provided at 5.15 precisely. Charge 5s., exclusive of wine. FREDK. CHAS. MUDD, *Honorary Secretary.*

Albion Villa, Uckfield, February 7th, 1871.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

FEBRUARY 1ST, 1871.

Dr. BRAXTON HICKS, F.R.S., President, in the Chair.

THE PRESIDENT delivered an Inaugural Address.

Dr. HEYWOOD SMITH exhibited a cast of the head of a child recently delivered by Cephalotripsy.

Dr. PROTHEROE SMITH exhibited the pelvic viscera of a woman who had died from Spontaneous Rupture of an Ovarian Cyst complicated with a Fibroid Tumour of the Uterus. The patient had suffered from severe diarrhœa for eight months before coming under observation, and also from sacral and bearing-down pains. Before any treatment could be adopted, the patient was seized suddenly with severe abdominal pain and vomiting, and died in eight hours. An ovarian cyst occupied the right side of the abdomen, and the peritoneal cavity contained two or three quarts of dark-coloured fluid, which was seen pouring out from an opening in the cyst immediately behind a globular fibroid tumour on the left side of the uterus. Dr. Protheroe Smith alluded to the importance of early operation.—The PRESIDENT said that there could be no doubt that many lives were lost whilst waiting, and he instanced one where another month would have rendered the operation impossible.—Dr. PHILLIPS remarked that an American physician was so impressed with the importance of early operation, as to advocate, in certain cases, its performance through the posterior wall of the vagina, while the cyst was yet small.—Dr. BARNES said that good might be expected from puncturing the cyst through the vagina by Dieulafoy's aspirator, and injecting it with iodine. He related a case in which this had been done.—Dr. WILTSHIRE said that, had gastrotomy been performed for the removal of the ovarian cyst, he thought the uterine fibroid might also have been removed at the same time.

Dr. EDIS exhibited an Ovarian Cyst which he had removed from a patient at the Soho Hospital on January 28th. This case exemplified the advantage of early operation. The adhesions had probably formed during the last month. The patient was doing well.

Dr. PLAYFAIR read a paper on Irritable Bladder in the latter months of Pregnancy. He remarked on the frequency with which this condition was met with in the last few months of pregnancy, often giving rise to much distress and suffering, and being little amenable to general treatment. He believed that in many cases it was due to pressure on the bladder resulting from an oblique or transverse position of the foetus. Little or no benefit could be expected from drugs, but immediate relief could often be obtained by altering the position of the foetus *in utero* by abdominal manipulation, after the manner described under the name of "external version", by Wigand, Stoltz, Mattei, and others. He detailed three cases, in which the most severe forms of dysuria were immediately relieved by this procedure.—Dr. BARNES said that, if it should be proved that dysuria was a symptom of transverse or oblique position of the child, we should have a valuable indication to correct the malposition before labour came on, by substituting external bipolar version under the most favourable circumstances for turning at the time of labour. He would ask why Dr. Playfair, having rectified the position of the child, did not secure it in due relation to the axis of the uterus? This could be done by a bandage and two pads, one applied to each pole of the foetus, and directed towards the median line.—The PRESIDENT considered himself indebted to the author for pointing out the fact that obliquity of the uterus produced irritability of the bladder. He was, however, at a loss to account for it by the pressure of the foetus, as the head in ordinary positions would press quite as much as a shoulder, if not more, and that against the most irritable portion of the bladder, namely the lower portion. He would suggest another explanation, the disturbance to the form of the bladder by the altered

form of the uterus.—Dr. PROTHEROE SMITH had remarked, in some cases of extreme irritability of the bladder in pregnant women, not only a straight spine, but, as a result, an increased projection of the abdomen forwards.—Dr. PLAYFAIR stated that all the cases had terminated by head-presentations. He did not, of course, hold that all cases of irritable bladder could be traced to this source. The three cases which he had detailed were the only ones he had seen in which the transverse position of the foetus could be clearly made out.

CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 27TH.

W. W. GULL, M.D., F.R.S., President, in the Chair.

THE PRESIDENT delivered an Inaugural Address, which was published in the JOURNAL of February 4th.

Dr. SILVER read an Account of certain Cases of Rheumatism treated with Veratrum Viride. The drug was given in two-minim doses every hour; ten-minim doses causing sickness and pain in the epigastrium. Its effects were noticed chiefly with regard to two particulars: reduction of temperature and diminution of pain. The temperature-charts were laid before the meeting, and the author was of opinion that they testified to an abatement of bodily heat as soon as the drug-influence had time to manifest itself; but, the cases being only ten in number, and his opportunity for further observations being meanwhile in abeyance, he fortified his position by the experience of Biermen, who had used the drug largely in the treatment of croupous pneumonia, and in whose hands it had acted powerfully in inducing defervescence. In the cases recorded a speedy diminution—in certain of them a complete abolition—of pain was brought about within forty-eight hours after giving the drug. As to the other objects to be aimed at in treating acute rheumatism, specially the removal of any *materies morbi* from the system, the facts recorded did not enable the author to speak; but under its use the urine speedily became clear. As to the obviation of heart-complications, it was pointed out that these depended rather on the period of the disease than the withholding of any special mode of treatment—patients ordinarily giving evidence of the complication during the first week of the disease, or at the period of relapse. For reasons hinted at above, the paper could only be considered as a fragment, but might be useful to those who cared to pursue the subject further.—Dr. CLAPTON remarked that he had found the stomach very intolerant of veratrum viride. The North American Indians used it in the ceremony of choosing their chiefs, because it was thought that the individual who resisted the irritating effects of the drug most successfully must be the best man. According to his experience, it was necessary to combine the veratrum with opium or some other sedative, so that it was difficult to know which preparation procured relief.—Dr. MURCHISON had no experience of veratrum in rheumatism. He had, however, employed it experimentally in pyrexia, and entirely agreed with Dr. Silver's remarks as to the remarkable effects produced on pulse and temperature, as in cases of scarlet fever, pneumonia, and typhus, treated by the drug, lowering, both of pulse and of temperature, were markedly observed. He did not, however, think that it shortened the duration of disease, and discontinued its use, or rather did not adopt it, because rather alarming symptoms approaching to syncope were induced (without any irritation of the stomach), requiring the use of stimulants. The drug, however, was worthy of further trials.—Dr. THOROWGOOD had hoped that the author of the paper would include some experiences of aconite as compared with veratrum in the prevention of pericarditis.—Mr. CARTER asked if exact notes had been taken as to frequency and force of pulse—say half-an-hour after the drug; and, if any change were observed, how long that change continued.—The PRESIDENT asked, if any negative cases occurred, in what way the failure was observed—whether as to pulse and temperature, or not.—Mr. KESTIVEN remarked that, in veterinary practice, a decrease of temperature always followed the taking of any drug.—Dr. C. T. WILLIAMS asked if the drug produced any effect on the urine or the alvine evacuations.—After some remarks from Mr. BARWELL as to the treatment of inflamed joints, Dr. SILVER said that he was glad to have the support of so excellent an authority as Dr. Murchison as to the effect of veratrum in reducing temperature. He could give no information as to the relative value of aconite and veratrum. From the exceedingly small doses given, there was at first no derangement of stomach, and no direct effects on the pulse, both becoming gradually affected. The only exact information as to the secretions was gleaned from America, where it appears that in some cases treated the urine was notably increased by it. The author added that since writing the paper he had found that the veratrum had been used for acute rheumatism in Trousseau's wards, and was greatly commended by Bouchut. Aran had also confirmed its

very remarkable powers in lowering the temperature, the pulse, and respiration. From the physiological inquiries of Kölliker and Pelikan, it seemed probable that veratrum acted primarily and directly upon the heart, but he had rested his views on its remedial action alone. The author greatly regretted that the number of cases at his disposal had not permitted him to contribute more than a fragment to the history of the drug.

Mr. TEEVAN briefly related the particulars of four cases of unusually Large Calculi, and stated that there were four points of interest:—(1) that the calculi were large; (2) that the method adopted for their extraction was not in accordance with the rules laid down and accepted by surgeons; (3) that the patients recovered; and (4) that there was no incontinence of urine in any case. Surgeons usually extracted calculi by means of a limited internal incision, and a subsequent so-called process of dilatation, which was in reality complete rupture of the prostate and its capsule. This method was opposed to the teachings of anatomy, and was usually followed by one of three bad results—death, impotence, or incontinence of urine. If, on the contrary, a free incision were made into the bladder, the rate of mortality was lessened, and such sequences as impotence or incontinence of urine were abolished. One of the reasons which deterred surgeons from making a free internal incision was the fear of infiltration of urine. Such an event, after lithotomy, was a physical impossibility. Infiltration of urine could only occur when the fluid was pent up and was unable to escape. After lithotomy, the urine passed freely, either by the wound or *per urethram*. Now, as there was no danger of infiltration of urine from making a free incision, and as the extraction of a calculus without the rupture or incision of the prostate was not possible, it followed that it was preferable to extract a stone by cutting it out rather than by tearing. He brought forward the above cases to show that the method was unattended with danger, and that the patients were in all respects better off by being treated with free internal incisions rather than by indefinite lacerations of important structures.—Mr. DE MORGAN said every surgeon would corroborate the view that it was better to cut than to tear the prostate. He thought there was a difference between the mode suggested and that adopted—that is to say, between making a single large incision in the prostate, and cutting it in various directions. The multiple incisions might be advisable with a large stone, ordinarily they were not so.—Mr. TEEVAN said he made a moderate incision in the prostate, laid hold of the stone, and then cut in various directions until it was released.—Mr. BARWELL said that in cutting the prostate surgeons had to try to avoid cutting the fascia; if that were done, the only chance for the patient was to make the external opening very large. He had never felt anything like a tear.—Mr. TEEVAN, in reply, said no one could tell whether the prostate was cut completely through or not. He believed there was no such thing as infiltration of urine after lithotomy; the external incision did not matter. His subsequent excisions must have far exceeded the prostate, and that must be always the case with children. Pathological specimens showed that some patients lived long after tearing the capsule of the prostate.

MEDICAL SOCIETY OF LONDON.

MONDAY, JAN. 30TH, 1871.

JOHN GAY, Esq., President, in the Chair.

THE PRESIDENT read a letter which he had received from the chief surgeon of the army of defence before Charenton, requesting a supply of vaccine lymph. The President had himself forwarded some lymph, and the letter, having been forwarded to Lord Granville, had been acknowledged and referred to Colonel Loyd Lindsay, that action might be taken in the matter.

Dr. PETER ALLEN demonstrated his method of Inflating the Cavity of the Tympanum. The plan was an improvement on Politzer's appliance, substituting a nasal pad, which is pressed against the opening into the nostrils for the tube which he inserted into one of them. This plan formed a very successful method of treating deafness, the result of aural catarrh. The air was squeezed in from an elastic bag at the time when the patient swallowed a little water, and when, as the late Mr. Toynbee had shown, the Eustachian tube was opened. By this method both tympanic cavities were necessarily inflated at the same time. If there chanced to be a perforation of one membrana tympani, air escaped with a rushing noise.—Mr. PENNEFATHER preferred to use the catheter with an elastic tube. By Dr. Allen's process much air was lost in the cavity of the mouth, and the bag prevented the possibility of regulating the quantity of air admitted.—Dr. TILBURY FOX had been perfectly relieved by Dr. Allen's method of an attack of catarrhal deafness.—Dr. BRUNTON had described in the *Glasgow Medical Journal* a method of inflating the tympanum by using a nasal tube and a bag, which could

be compressed by the patient at the same time that he performed the act of swallowing.

Dr. RICHARDSON showed an apparatus for the Transfusion of Blood. He alluded to the importance of attending to the details connected with this operation, especially the needle-tube for introducing the fluid into the vein. The vein must not be laid bare, but incised, and the tube introduced. For introducing the fluid, no force should be used—hence all syringes were objectionable. Enough force could be obtained by simply elevating the vessel. The blood of a lamb was found to answer well. To keep it fluid, cold should be used, a temperature of 45 deg. Fahrenheit being the right one to maintain blood in a fluid state. Certain solutions added to blood also maintained its fluidity; the best for this purpose being solution of ammonia in the proportion of twenty drops of liquor ammoniæ to one ounce of water and one pint blood. Another solution that could be used was of one hundred grains of carbonate of soda with one hundred and fifty of phosphate of soda in two ounces of water. Blood dried and powdered seemed applicable when mixed in water, and might be used when recent fluid blood could not be obtained.—Mr. BRUDENELL CARTER mentioned cases of the hæmorrhagic diathesis where the blood seemed altered in composition. In one case it smelt very offensively. Might not transfusion of pure blood be used with benefit in these cases?—Dr. ROUTH thought that transfusion might be tried in cases of malignant fevers and other kinds of blood-disease; also to restore persons moribund from asphyxia.—Mr. JABEZ HOGG had examined carefully dried blood; when mixed with water, it was optically quite similar to recent blood.—The PRESIDENT asked if it were necessary to use an instrument solely for opening the vein. He had seen valuable time lost on one occasion from the injecting tube being passed by the side of the vein instead of into it.—Dr. EVANS inquired as to Dr. Richardson's experience of injections in cases of cholera.—Dr. RICHARDSON, in reply, said that Hook had showed before the Royal Society long ago how asphyxiated animals could be restored by the injection of arterial blood. He had used saline injections in sixteen cases of cholera. One patient sat up and conversed; but as soon as this stage of reaction was established, the purging returned and the patient died. Dr. Richardson wished he could find some medicinal substance that might be injected with the saline solution as a cure for the disease.

Mr. HENRY SMITH showed a small Speculum, a fragment of which had broken off and remained in a patient's rectum. The occurrence was quite recent, and Mr. Smith hoped to hear of the fragment having passed *per anum*.

The PRESIDENT narrated a case of Strangulation of the Intestine relieved by mechanical treatment. A young man, aged 27, had symptoms of intestinal obstruction, with stercoraceous vomiting and pain in the right side of the abdomen. Intestinal constriction by a band was diagnosed; and the patient being held for a time head downwards, had the abdomen well kneaded by Mr. Gay. After this procedure the vomiting ceased, and in seven days more the bowels acted in a natural way. The man died of phthisis six weeks later. A necropsy could not be obtained. The President had in 1861 drawn attention to intestinal obstruction by means of bands, in a paper which he read before the Society. He had then collected one hundred and twenty cases. The band was usually found to be a loop of the mesentery, generally on its right side.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, JANUARY 28TH, 1871.

JAMES STANNUS HUGHES, M.D., President, in the Chair.

THE Rev. Dr. HAUGHTON, on the part of Mr. Robert P. Walsh of Inniskillen, presented a morbid specimen from the body of a man whom Dr. Haughton had seen during life in company with Mr. Walsh, and in whose case most of the rational signs and symptoms of Thoracic Aneurism were present. The patient was a man, aged 38, and had for some months complained of attacks of boring pain in the back, which recurred at gradually lessening intervals. When admitted to hospital, he said that the pain had become almost constant. A loud murmur was audible along the course of the abdominal aorta; in the neighbourhood of the coeliac axis there was visible pulsation. From the appearance of the superficial veins over the abdomen, and from the existence of œdema of the lower extremities, it was evident that some tumour was pressing on the inferior cava. When, in addition to the above, attention was directed to the state of mental anxiety in which the patient was, the diagnosis of aneurism was rendered probable. The heart and lungs were generally healthy. Death supervened shortly after the occurrence of uræmic symptoms. On examination, a large irregular

tumour, which apparently took its origin from the lumbar glands, was found to completely involve the aorta close to the origin of the coeliac axis, and to almost occlude the inferior vena cava. The left kidney was small and pale; its pelvis was distended with urine, and the corresponding ureter was impervious just below its origin, having been compressed by the tumour. An abscess had opened into the capsule of the viscus. The right kidney was large and intensely congested—indeed, in a state of acute inflammation. To this condition of parts the uræmic symptoms were due. The tumour appeared to be non-malignant.

Dr. M'GRATH, Assistant-Surgeon 8th Hussars, showed a good example of Narrowing of the Aortic Orifice, with extensive atheromatous deposit. A soldier, aged 36, in November last, met with a severe injury to the leg and foot, both tibia and fibula having been broken. The case proceeded favourably until January 4th, when an erysipelatous blush spread over the injured limb. At this time the pulse was weak, but regular. In a few days albuminuria was detected; and there was œdema of the lower extremities. On January 19th, symptoms of collapse and dysuria set in. The following evening the man had abdominal pain and tympanitis; delirium followed, and the patient sank. A considerable quantity of serous fluid was found in the pleural and peritoneal cavities. The kidneys were in an advanced stage of fatty degeneration. The heart was healthy, but the aortic opening was so narrowed as scarcely to admit the little finger. On the aortic valves, as also in the vicinity of the mitral orifice, there were abundant calcareous deposits.

Dr. HAYDEN presented a morbid specimen which verified the diagnosis made in a case where a Double Murmur, closely simulating an endocardial one, was proved on examination after death to have had its seat in the pericardium. The case was one of bronchitis and emphysema of the lungs, and the prominent features of the disease were dyspnoea, lividity, a turgid state of the cervical veins, and œdema of the lower limbs. The pulse was slow, full, and regular. Physical investigation of the cardiac region revealed an enlarged area of præcordial dulness. A double murmur was also heard over the apex of the heart, which organ was displaced towards the epigastrium. Of this murmur, the first part was synchronous with the heart's systole, but the second was perceptibly postdiastolic. The double *bruit* was likewise harsh, the systolic portion more particularly so. From this last mentioned characteristic, as also from the want of correspondence in time between the second *bruit* and the second sound of the heart, the murmur was determined to be pericardial. After death, the heart was found to be globular, and considerably enlarged. The right ventricle was dilated, and somewhat hypertrophied. The right auriculo-ventricular opening was much dilated. On the visceral and parietal layers of the pericardium over a limited area, corresponding to the seat of murmur during life, was found an extensive deposit of lymph, which was rough, and so had doubtless caused the double murmur.

Dr. HAYDEN also showed the Lungs of a man, aged 45, who had died some days previously of Typhoid Pneumonia. On his admission to hospital, localised signs of pneumonia were detected just over the pericardium. Subsequently, the disease extended upwards towards the apex of the lung. The case was chiefly interesting as confirming the situation of the original outbreak of disease as evidenced by the physical signs. The left superior lobe of the left lung was proved at the autopsy to have been alone engaged, the morbid change being limited by the pulmonary fissure. In the tongue-shaped process of the upper lobe of the lung the appearances of the third stage of pneumonia were perceived, while the remainder of that lobe was in a state of consolidation only.

Dr. R. W. SMITH exhibited the bony Pelvis of a woman, aged 60, who died last April of the effects of a street accident, the wheel of a heavily laden van having passed over her body. The patient was admitted to hospital in a state of collapse. Retention of urine, perspirations (on the third day), and hæmaturia followed. In a few days, a tumour showed itself above Poupart's ligament on the right side. Over the tumour the skin shortly became discoloured. The percussion sounds were tympanitic, and an emphysematous crepitation was audible over the seat of the swelling, which eventually proved to be an urinary abscess. The course pursued by the abscess was peculiar. It ran externally to the pelvic fascia by Poupart's ligament, just above which it presented. The bony parts were found at the autopsy to have sustained most serious injuries. No fewer than four distinct fractures, two on each side, remarkable for their symmetry, were seen traversing the anterior walls of the pelvis. The first ran through the junction of the superior ramus of the pubis with the ilium on the right side, into the acetabulum, down to the tuberosity of the ischium. The second, on the same side, ran from the spine of the os pubis through its descending ramus, and the external fragment was found to have lacerated the bladder. Two almost vertical fractures had occurred on the left side.

CORRESPONDENCE.

MERCURY IN HEPATIC DISEASE.

SIR,—With reference to the report in the JOURNAL of the 4th inst., of a paper on the above subject by Dr. Hughes Bennett, will you do me the favour to give space in your next issue to the few following words? 1. It is not true that any man at Netley ever had "the ointment of the biniodide of mercury rubbed into his side twice, and sometimes thrice, daily". 2. No man was ever "furnished with two large boxes of the ointment" to be used as described in the report. If the man exhibited at the meeting of the Society in Edinburgh took any of the ointment in question away with him, he did so without authority, and without the knowledge of any of the officers of the Royal Victoria Hospital; and if he used what was thus improperly obtained in the manner described by Dr. Bennett, the man is alone responsible for whatever consequences followed.

I am, etc.,

W. C. MACLEAN.

Royal Victoria Hospital, Netley, Feb. 6th, 1871.

ON MEDICAL REFORM.

SIR,—In the JOURNAL of last week I replied, so far as I was able, to certain remonstrances addressed to me upon my recent letter on medical reform. I defended myself against any suspicion of being likely to divide the profession in time of action, while, on the other hand, I claimed a right to be heard so long as discussion is yet open. I also explained the reasons, such as they are, which had prevented my entering into the lists at an earlier date. The courteous tone of those remonstrances, and the fair invitation to continue the discussion in the BRITISH MEDICAL JOURNAL, induce me to trouble the Association to-day with some further exposition of my views.

I am accused—and the accusation is one to which I must plead guilty—of hinting that the Reform Committee had gone backwards in the path; that, having known the grace of genuine freedom, it had dallied with the seductions of the enemy, and had yielded no little to temptation. For two or three years I confess that I slumbered in a false security, assured that the Association was on the watch; and so, having all confidence in its bold array, I did not feel called to assume any imposing attitude of my own. Now that things are getting hotter, and I awake to find my plans and hopes different from those of the Reform Committee, I am too ready, perhaps, to cry, as our poor neighbours are crying, *nous sommes trahis*.

I was wrong, then, in supposing that the Association leaders ever proposed a scheme which could have claimed my allegiance; and I have to admit, upon correction, that from my point of view they are not only wrong now, but have been consistently wrong from the beginning. In joining issue with the Reform Committee to-day, I scarcely know where to set out, for I cannot, for sheer tediousness, write out again what I lately said at length elsewhere; nor, on the other hand, have I any right to assume that my somewhat lengthy *excursus* of a fortnight ago is familiar to my readers of to-day. I may venture, however, to sum up what I have said before, my arguments being as follows. I contended that all true progress must consist in a continuous adequation of formal change to insensible development, and that nothing is more truly destructive than that backwardness which clings to forms outgrown. Permanent endowments are for this reason among the great dangers of a community, for they tend to perpetuate the old order, and, in proportion to their richness, they are powerful in restraining the healthy tendency of each generation to provide for its own needs in its own best way. The position of the guilds is one of the best illustrations we could have of this danger and this injury. Well adapted, perhaps, to the times of their creation, they are for this very reason out of all relation with modern life; and in commerce, where contact with the harder realities compels men to be abreast of or before the day, we find that the guilds are reduced to their due insignificance; they are made useful for some executive purposes, but of legislative power they have none. Far otherwise is it with the learned professions. In them, strangely enough, we see anything but a lively sense of the features of modern life; the legal guilds do their best to ruin the great profession which they undertake to represent, and the medical guilds have like aspirations, but, fortunately, are far below them in wealth and power.

It is my present intention to point out one chief error which throws the medical guilds out of all relation with our own times, and which makes them also powerful in many ways for positive mischief. This fundamental error is, that the very principle of their existence is that of

government by the few—a principle which is in direct opposition to that principle of government by the many which is laid as the foundation of all modern progress. There are, I admit, three parties in the country: Conservatives, whose principle is government by the few; Liberals, whose principle is government by the many; and Radicals, whose principle is no government at all. But, leaving the Radicals aside, I am justified in arguing the present question as a Liberal; for the Government from which we demand new legislation is Liberal; and the British Medical Association is Liberal, or it is nothing. The first article, then, of the creed of the Government and of the Association, and the basis of their every action, is necessarily that of government by the many. Nor is there a constituency to which this principle may be applied more fearlessly than to the mass of the medical profession—a body of men possessing, as a rule, great common sense and a good education of a good kind. Look, then, on this principle, and compare with it the cynical attitude of the medical guilds, whose internal government is on the narrowest possible plan. He who would discover the slightest evidence of movement in the essential affairs of the medical corporations, must be a greater than Galileo; their real immobility being now in comic contrast with their panic-stricken efforts to construct an extempore "Conjoint Board" to impose on the Home Secretary.

"Qui diable est-ce donc qu'on trompe ici?
Tout le monde est dans le secret!"

But some one may say, "Granting that the instincts of the corporations, as seen in their internal affairs, are reactionary beyond all reasonable belief, have they not worked well in some ways? What, for example, have they not done for medical education?" This argument I have lately seen urged by Dr. Rumsey in the JOURNAL. As an active clinical teacher of some experience, I gladly join issue on this very point. Shall we gather figs of thistles? On the contrary, I contend that the corporations have, both by dead weight and by active perpetuation of error, done more to ruin medical education than the real leaders of that education—the schools of medicine—have been able to resist. That, under present terror, the mountains and the little hills are skipping like young sheep, I admit; but it needs no long life to remember how we clinical teachers struggled until hope was almost gone under the blight of these pioneers of education. How our students were actually discouraged from attendance on practical courses; how any acquaintance with recent science was more likely to pluck than to pass them; how our best men were tricked, flouted, and even execrated, by their examiners; and how, under the dead and mean routine of narrow, stupid, and ill-timed examinations by various rival Boards, our students sank into dulness or rowdiness,—are matters of recent memory. If we have anything of elevation, anything of research, anything of industry, anything of brightness and variety, in our modern medical schools, we certainly have not to thank a medical "authority" for it, unless it be perhaps that modern body, the University of London. And these are the bodies who claim to outweigh the application of government by the many, on the ground of past services. The answer which very many dear Conservative friends have for all this is, that the faults of the guilds were but the faults of their day; and that, living on, they "will purge themselves and live cleanly." But we who call ourselves Liberals—and Liberal I believe our Association would be—deny that as a possibility. We contend that such *capita mortua* will all institutions, Medical Councils and other, become, if they stand on a narrow basis; and that all which gives and means life can only be secured by recognition of the rights of the many and by popular election.

Let me earnestly call upon the Association to consider well before it binds anew the chains of our old bondage, and to set anew these cardinal principles before its face. First, that the many form the well ascertained basis of modern government; and that the Medical Council, therefore, which will govern us in all that we do as medical men, can only be based on direct representation, if it is to be strong and to command allegiance. Secondly, that upright and cultivated men in official positions are, without this check, as likely to be wrong in their views of policy as other knots of men are, and are even more likely, in so far as they are successful men, whose success has been gained upon the system they defend. Thirdly, that the medical corporations have no claim, over and above the right of force, to be directly represented on the Council at all, for in the past they have been unworthy of their trust, and henceforth they have to learn that they exist for the profession, and not the profession for them. Thus the question is brought to the practical issue, upon which I offer no opinion, as having none, namely—how much in the way of compromise shall we be obliged to surrender. But one point there is beyond which there can be no surrender—I mean that a *working majority must remain with the direct representatives of the profession*, for no Liberal can vote consistently for anything short of this. To reject all compromise would be fanatical,

and I for one shall readily yield a seat or two to the medical corporations rather than lose the whole Bill; but compromise may sink into time-serving, and by embracing the second best we may forget to love what is best. That the able and deservedly eminent men who represent corporate interests should strain every nerve to secure their prescriptions, is a duty which they of all men are least likely to forget, nor have I a word of blame for them, *est enim ars et modus maledicendi*. But I call upon the profession at large to publish themselves, by letters to the journals or otherwise, as earnest on their own behalf, to refuse to see their own representatives placed in a powerless minority, and to prevent one more fit application of the proverbial *sic vos von vobis*. My desire is not to add to confusion, but to clarify the matter; to set forth those principles which are to guide us, and to bring it home to the hearts of all that we are fighting for the right to manage our own concerns in our own way, to establish our government upon the basis of the many and not of the few, and to lay down permanent lines upon which our children must work.

"Non fumum ex fulgore sed ex fumo dare lucem cogito."

I have scarcely left myself time to urge the retrenchment of the Council to twelve members, a number amply sufficient for all practical purposes. How great a waste of time and of money is caused by the present excessive number of representatives will, however, be painfully present to the mind of anyone who has attempted to read its past debates, the most weary reading, perhaps, that ever fell to mortal lot. This aimless display of garrulity, in men otherwise able and accomplished, was the necessary consequence, perhaps, of the humorous experiment of shutting up together representatives from all the rival corporations, from the cedar of Lincoln's-Inn Fields to the hyssop on the wall, and requiring of them results.

Leeds, February 1871.

I am, etc.,

T. CLIFFORD ALBUTT.

THE SUBCUTANEOUS DIVISION OF THE NECK OF THE THIGH-BONE.

SIR,—In the paper read by me at the meeting of the British Medical Association at Newcastle on August 10th, 1870, and published in the BRITISH MEDICAL JOURNAL on December 24th, 1870, I described what I believed to be a perfectly new and original operation, by which, in certain cases of bony ankylosis of the hip-joint, with the limb in a deformed position, the neck of the thigh-bone might be divided subcutaneously by means of a small saw, a quarter of an inch in width, and having a cutting edge a quarter of an inch in length, introduced through a punctured wound made with an enlarged tenotomy knife a little above the great trochanter, and carried directly down to about the centre of the neck of the bone. By this operation, which I performed at the Great Northern Hospital on December 1st, 1869, cases of extreme deformity may be immediately rectified, and the limb brought into a straight position.

I was not then aware that any such operation had ever been suggested or performed by any one; but in a work on *Deformities*, published within the last few weeks by Mr. Brodhurst, and which is essentially a reprint of lectures previously published by him in the *Lancet*, he has claimed to have performed an operation *of this character* in the year 1865.

In the work alluded to, Mr. Brodhurst describes four operations, as applicable to cases of bony ankylosis, and at page 152 adverts to the fourth operation in the following terms.

"4. Where it is not desired to obtain motion, but only to rectify a false position of the limb, the bone may be divided subcutaneously, and an improved position may be given. I performed an operation *of this character*, with the assistance of Dr. Richard Brown and Mr. Potter, in the year 1865, and have subsequently had occasion to repeat it. In the present year Mr. W. Adams has, at the Great Northern Hospital, also in a similar way, cut through the neck of the thigh-bone."

No details whatever are given by Mr. Brodhurst, nor is it even stated that the operation was performed by him at the hip-joint. Moreover, it is a remarkable fact that in the original lecture, published in the *Lancet*, no mention is made of this operation having been performed either by himself, or by any other surgeon.

The following quotation is from the lecture as published in the *Lancet*, February 20th, 1869.

"*The Treatment of Bony Ankylosis*.—There are three operations which may, under certain circumstances, be done, to restore motion, or to improve the position of the limb—viz., 1st, to remove a wedge of bone; 2nd, to break through the ankylosis, after drilling through the new bony formation; 3rd, to make a false joint."

In Mr. Brodhurst's work on *Deformities*, however, just published, and stated in the preface to be a re-issue of these lectures, the sub-

cutaneous division of the bone is mentioned as a fourth operation for ankylosis in the terms of the quotation above given.

Thus, it appears that in his lectures, published in 1869, Mr. Brodhurst mentions only three operations for the treatment of bony ankylosis; and in his work, published in 1871, he mentions four operations for the same class of cases; the fourth being that which I had in the interval published at the Newcastle meeting in August, 1870, and of which I claimed to be the originator.

Now, I can only explain the singular omission of all notice of any such operation in his published lectures in 1869 by assuming that Mr. Brodhurst had either forgotten that he had ever performed such an operation, or that he attached so little importance to it as to omit all mention of it as a surgical procedure.

In the absence of any published record of Mr. Brodhurst's case, or cases, I could have no knowledge of any such operation having been performed; but now I hope we shall be favoured in the JOURNAL with all the necessary details as to the nature of the case; the joint operated upon, since this is not mentioned; the mode of performing the operation, and instruments used; by whom and when made; the progress of the case as to the occurrence of suppuration, or not; and the result of the case, which would be of additional interest from the length of time that has elapsed.

I think, Sir, you will agree with me that such details are called for, before I could surrender my claim to originality with respect to the operation in question.

I am, etc., W. ADAMS.

5, Henrietta Street, Cavendish Square, Feb. 13th, 1871.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

MR. W. H. SMITH, on March 14th, will call attention in the House of Commons to the operation of the Poor-law in the metropolis, and move an address for a Royal Commission to inquire into the policy of its administration.

STATISTICS OF WORKHOUSE INFIRMARIES.

WE have before us a very interesting report by Dr. Clarke, to the Leicester Guardians, on the statistics, etc., of the workhouse infirmary during the past year. A series of such documents would afford valuable material for State Medicine; and it is probable that, while such compilations would be of use in affording a good and regularly recurrent opportunity of enforcing principles by example, and proof laid before the guardians, they also would serve the purpose of defining the facts and elucidating the principles which guide medical officers, and displaying accurately the nature and results of their work. The work of *training* nurses has been carried on very successfully in the wards; several have been sent elsewhere.

MEDICAL ORDERS FOR FOOD IN SICKNESS.

MR. BROOKES writes:—"No good can result from a further correspondence with the Poor law Board on the discretionary power of medical officers in ordering extra nourishment or stimulants for the patients under their charge. The decision of the Board has been given; it is in favour of the superior jurisdiction of overseers and relieving officers, and will, doubtless, be supported by the Boards of Guardians generally. Two courses are open: first, that Poor-law medical officers should henceforth refrain entirely from ordering such extras, leaving this department of the medical treatment altogether to the overseers and relieving officers, who are *unfettered*, and can act on their own *discretion*; and, secondly, to refer this matter, amongst others affecting the welfare of the poor and the interests and efficiency of medical officers, to the consideration of Parliament."

VACANCIES.

ALNWICK UNION, Northumberland—Medical Officer and Public Vaccinator for the Embleton District (£30 per annum, and extra fees): applications, 22nd, to J. A. Wilson, Clerk to Guardians; election, 25th.

ASTON UNION, Warwickshire—Medical Officer and Public Vaccinator for the Sutton Coldfield District (£42 per annum, and extra fees): applications to John Lumby, Clerk to Guardians, 89, New John Street, Birmingham, 28th; election, 28th; duties, March 7th.

BELFORD UNION, Northumberland.—Medical Officer for the East District (£25 per annum, and extra fees): applications, to Wm. Johnson, Clerk to Guardians, Alnwick, 6th March: election, 8th.

FALMOUTH UNION, Cornwall—Medical Officer for the Constantine District: applications to the Vicar of Constantine: vacancy, March.

KIRKMI AEL, Dumfriesshire—Parochial Medical Officer: applications, March, to Inspector of Poor.

KNARESBOROUGH UNION, Yorkshire—Medical Officer and Public Vaccinator for the Knaresborough District (£55 per annum, and extras); applications, March 7th, to Edwin Smith, Clerk to Guardians; election, 8th.
 PONTEFRAC T UNION, Yorkshire—Medical Officer for District No. 6.
 POPLAR AND STEPNEY SICK ASYLUM DISTRICT—Resident Medical Superintendent for the new Asylum at Bromley, Middlesex (£250 per annum, with board, furnished apartments, and washing); applications, 24th, to Robert Foskett, Clerk to Managers, Union Workhouse, Stepney.
 ST. ASAPH UNION, Flintshire—Medical Officer for the Denbigh District.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

FOR the Clonmel and St. Mary Dispensary, vacant by the death of the late Dr. Fitzgibbon, Dr. W. B. Phelan and Dr. Kinnefick were candidates. The latter was elected by seventeen votes against thirteen.

THE circular of the Commissioners, calling attention to the insidious approach of small-pox in Ireland, has produced renewed activity in all the unions in enforcing the regulations for compulsory vaccination, which have in many cases been dangerously relaxed, notably in Belfast and Drogheda.

A CASTLE communication has informed the Board of Governors of the Limerick District Lunatic Asylum that, under Rule XXVIII of the Privy Council, they are bound to pay £450 a year as a salary to their medical officer—the number of patients being above 350, and under 500. Whereupon the brilliant idea has occurred to them, that, by docking the medical officer's rations, they can make the apparent increase merely nominal. They have written to the Castle to know whether this stretch of ingenuity is within the law.

POOR-LAW MEDICAL INSPECTORSHIP.

BY the death of Dr. John Hill, Poor-law Medical Inspector in Ireland, to which we refer elsewhere, a vacancy has occurred in that service; the value of this appointment is £650 a year, with an annual increment of £20, and a maximum of £750 a year. In the Annual Report of the Poor-law Commissioners for 1869, we find it stated, in a letter to Sir Thomas Larcom, that it was proposed that the course adopted in England in regard to the salaries of the Poor-law Inspectors should be so far adopted in Ireland that, instead of a commuted allowance for personal expenses, an addition should be made to the salary, so that the whole may be made the basis of computing the superannuation allowance on retirement from the service, as at present arranged in the case of the Poor-law Inspectors of England. Thus it is proposed that after five years' service the salary should be £800; after another five years, £850; and after a further five years, thus completing twenty years' service, £900 as the maximum. "The sum last named is, the Commissioners believe, the amount of Poor-law Inspectors' salary in England on first appointment." "The Commissioners, after nearly six months' experience of the benefits of the measure, which, they are satisfied, as already observed, has been completely successful, submit the same proposal to consideration, and trust that His Excellency the Lord Lieutenant will be pleased to recommend it to the favourable consideration of the Lords Treasurers of Her Majesty's Treasury." We enter thus fully on this subject, because we understand that it is the intention of the Irish Poor-law Medical Officers' Association to press upon their Commissioners the importance that in the filling of the office of Poor-law Medical Inspector, a member of their body, duly qualified, should have the preference. By an Act passed in 1868, for the purpose of extending the powers of Poor-law Inspectors in Ireland, every Inspector was virtually constituted a Medical Inspector; and it is a curious anomaly that, to enable a medical man to become a Poor-law Inspector, he must be a practising physician or surgeon of *not less than seven years' standing*; while non-medical men have the advantage of not requiring any particular qualification. This is a subject to which we would particularly direct the attention of the Association. No time should be lost in the formation of their organisation. The sooner the Poor-law Medical Officers of Ireland establish the precedent of promotion in their ranks, the better; in the meantime, they may rely upon it that we shall keep a jealous eye on the principle which may be followed in filling up of the present vacancy.

PROMOTION IN THE POOR-LAW SERVICE.

THE Dublin Branch of the Irish Poor-law Medical Officers' Association has unanimously adopted the following resolution:—

"That in filling the vacancy of Poor-law Medical Inspector, caused by the death of the late lamented Dr. Hill, the claims of the Poor-law Medical Officers of Ireland, to this, at present, their only means of

promotion, should be duly considered, and that in this and in all other vacancies and appointments occurring in the Poor-law Medical Service, members of that service possessing the necessary qualifications should have the preference; and that the Secretary of the Association, Dr. Maunsell, shall submit this resolution, with all due respect, to the notice of the Commissioners for Administrating the Laws for the Relief of the Poor in Ireland."

SOUTH DUBLIN UNION.

OWING to the death of the late lamented Dr. Brassington, the Rathmines Dispensary has become vacant. The population is 15,747; area, three miles. The salary is £125; registration, about £40; vaccination, about £18. The death of this much regretted gentlemen having occurred very recently, this vacancy has not yet been advertised. We understand, however, that there are already several candidates in the field.

VACANCIES.

SOUTH DUBLIN UNION—Medical Officer for the Rathmines Dispensary District: applications, 27th, to J. H. Evans, Chairman of Committee, 71, Rathmines Road, Dublin; election, 28th.
 TULLAMORE UNION, King's County—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Kilbeggan Dispensary District (£90 per annum, and Vaccination and Registration Fees): applications to M. McManus, Hon. Sec., Kilbeggan: election, 21st.

OBITUARY.

SAMUEL PIDWELL, M.R.C.S.

It is with feelings of more than ordinary regret that we record the death of Mr. Samuel Pidwell, Demonstrator of Anatomy at the Middlesex Hospital. On completing his medical studies at University College Hospital with considerable credit, Mr. Pidwell became House-Surgeon to the Middlesex Hospital. After a year's residence in that institution, he was appointed Demonstrator of Anatomy in the Medical College, but had only been engaged in his new sphere of work for two or three months when he was compelled to discontinue his labours for a time, in consequence of the formation of an extensive and persistently discharging abscess in the abdominal wall. After a short term of absence he returned to the Middlesex Hospital improved in general health, and struggled on with his duties. He again became worse, and returned home to Penzance. Symptoms of spinal disease, with partial paraplegia, developed themselves, and were followed by pyæmia, which terminated his life on Sunday morning. During his professional career he gave every promise of becoming a painstaking and sound surgeon. Throughout his student life, and as House-Surgeon and Demonstrator of Anatomy at the Middlesex Hospital, "Sam Pidwell" was universally and most deservedly a popular man. His quiet, yet cheerful, sociability, his honourable feelings, and amiability of character, have left a deep impression on all those who knew him. His name will recall for many years to come feelings of deep regret at the premature death of one who deserved well of his fellow men.

JOHN MATHIESON, M.A., M.B., ALEXANDRIA.

WE much regret to record the death of one who had hardly commenced his professional labours, after thoroughly equipping himself for his work by a lengthened period of the most praiseworthy study. The late Dr. Mathieson, whose death from small-pox occurred recently at Alexandria, was a native of the Ross-shire Highlands, and began life as a teacher in an elementary school. Like many others of his class in Scotland, he was ambitious of an university education, and, to his great credit, he proceeded as an art-student to the University of Aberdeen, where he took his M.A. degree in 1866, at the end of the usual four years of study. Assisted to some extent by funds that had been placed in the hands of one of the medical professors at Aberdeen to be expended on the professional education of a deserving student, the donor himself having met with a similar kindness in his youth, Mr. Mathieson then joined the medical classes, and, after an honourable career of diligent study, graduated with honours in April last. Dr. Mathieson at once proceeded to Alexandria as assistant to Dr. Mackey, of that city, and after a few months' work fell a victim to small-pox, contracted in the discharge of hospital duties.

Of Dr. Mathieson's character, those who knew him cannot but speak with the highest esteem and veneration. He was of a most unobtrusive disposition, having the air of one little acquainted with the conventionalities of the social world. Notwithstanding, among his fellow-students

through the whole eight years of his university course, he may be said to have been a general favourite; and this respect he commanded, not by brightness of wit or by the display of the more ordinary fascinating qualities, but simply by the purity and the even tenour of his whole life.

JOHN HILL, M.D., DUBLIN.

It is with much regret that we announce the death of Dr. John Hill of Dublin, who has been for many years Poor-law Medical Inspector under the Medical Charities Act. He had previously been Surgeon to the South-East General Dispensary, Dublin, and Physician to the Kilmainham Fever Hospital. His death occurred on last Saturday morning, after a brief illness, at his residence, Seaview Terrace, Donnybrook. Dr. Hill was for a long time Inspector of the Dublin Dispensary District, during which period his zeal, intelligence, kindness, and gentlemanly conduct, endeared him to the medical gentlemen with whom he came in contact—so much so that on his promotion from that district they made him a presentation, of which he has frequently expressed himself as being justly proud. We understand that the Irish Poor-law Medical Officers' Association intend urging on the notice of the Poor-law Commissioners that, in the new appointment in Dr. Hill's place, the claims of a member of their body should have the preference.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Monday, Feb. 13th.

THE VACCINATION ACT.—Mr. W. E. Forster moved the appointment of a select committee to inquire into the operation of the Vaccination Act (1867), and to report whether such Act should be amended. He did so in compliance with the statement made by the Home Secretary towards the end of last session, in consequence of a Bill that was introduced by the hon. member for Sunderland to amend the existing Vaccination Act, for relaxing the present stringent punishment imposed by that measure. There was but little chance of such a Bill being passed into a law; but it was desirable, if possible, to remove the objections that existed in the minds of some persons in the country, and it was to meet those objections that the Bill was brought forward. Government had not the slightest doubt of the advantages and efficacy of vaccination, but it was found necessary to have recourse to the law to compel its being performed. It would be pleasanter not to be obliged to have recourse to compulsion; but, unfortunately, an amount of ignorance prevailed with respect to the benefits of vaccination, fostered in many instances by interested motives, which it was desirable to remove; and statistics showed that the epidemic rose and fell according as compulsion had or had not been enforced. The committee might take into consideration many suggestions which had been made in various parts of the country for rendering the Act more effective than it was at present. The Administration of the Act should likewise be inquired into; and he believed when that took place it would be found that both the Privy Council and the Poor-law Board had done their utmost in order to prevent imperfect vaccination. It was intended that the committee should have full scope—that it should receive evidence of the operation of the Act in Ireland and Scotland, as well as England; and he hoped that, in justice to the public, the committee would feel it to be their duty to make their report as speedily as possible.—Sir C. Adderley opposed the motion on the ground that the present was a time when confidence should be expressed in the law, and not doubt. A commission had already inquired into the operation of the Vaccination Acts, and parts of the Sanitary Acts; their report would soon be laid on the table, and its effect would be that the law was complete, and that nothing was wanted but the carrying out of the law, which had been done only in an imperfect way.—Mr. Candlish, Mr. W. H. Smith, Dr. Brewer, Lord R. Montagu, and Dr. Playfair, supported the motion, which was put and carried.—The following were nominated on Thursday as members of the Select Committee: Mr. Wm. Edward Forster, Mr. Stephen Cave, Mr. Candlish, Mr. William Henry Smith, Mr. Muntz, Lord Robert Montagu, Mr. Jacob Bright, Sir Smith Child, Dr. Lyon Playfair, Mr. Holt, Mr. Taylor, Sir Dominic Corrigan, Dr. Brewer, Mr. Alderman Carter, and Mr. Hibbert.

ELECTION OF CORONER.—Mr. Goldney gave notice of his intention to ask for leave to introduce a Bill for the purpose of regulating the election to the office of coroner.

REGISTRATION OF NURSE-CHILDREN.—Mr. Charley gave notice of his intention to ask leave to introduce a Bill for the registration of nurse-children.

THE ROYAL SANITARY COMMISSION.—In reply to Sir C. Adderley, Mr. Bruce promised that in three weeks' time he would produce some of the results of the work of the Home Office, founded on the as yet unpublished report of the Royal Sanitary Commission.

Tuesday, February 14th.

LUNATICS AND HABITUAL DRUNKARDS.—Mr. Dalrymple moved for and obtained leave to bring in a Bill to amend the law of lunacy, and to provide for the management of habitual drunkards. The hon. gentleman said the Bill differed but little from the Bill of last session.

POLLUTION OF RIVERS BY SEWAGE.—Mr. Dimsdale asked the Secretary of State for the Home Department whether he intended to introduce any general measure during the present session for the prevention of the pollution of rivers by sewage.—Mr. Bruce said he regretted to have to state it would not be in his power to do so.

LOCAL RATING EXEMPTION.—Mr. Muntz, in moving for leave to introduce a Bill to exempt Charities and Hospitals from local rates, said he did not wish to enact any new law or to repeal any existing one, his only object being to re-enact a statute of the 43rd year of Queen Elizabeth, one of the provisions of which had been set aside by the decision of a Court of Law about three years ago. According to that decision, charities supported by voluntary contributions were liable to be assessed to the poor-rate. Great difficulties had resulted from this decision, and not very long ago warrants were issued against a charitable institution of the kind referred to, and even beds on which sick and infirm persons were lying were seized for poor-rates. When the Irish Poor-law Act was passed, a special clause was inserted in it, providing that charitable institutions supported by voluntary contributions should be exempted from rates. Some persons thought a great principle was involved in this matter, and that it would be unfair to the taxpayers if all the property in a parish were not rated. He had, therefore, made the present measure different from that of last year in this respect, that the overseers be left free to determine whether a charitable institution should be rated or not. In conclusion, he moved for leave to bring in the Bill.—Leave was given; and the Bill was afterwards brought in and read a first time.

Wednesday, February 15th.

METROPOLITAN WATER SUPPLY.—Mr. Shaw-Lefevre gave notice that on Thursday in committee of the whole house, he would move that the Chairman have leave to bring in a Bill to amend the provisions of the Metropolitan Water Act of 1852, with a view to securing a better supply of water to the metropolis.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The undermentioned gentleman passed his primary professional examination, on February 7th, 1871.

Coffin, Richard James Maitland

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, February 9th, 1871.

Cooper, George Joseph, Dacre Park, Lee
Robinson, John Desborough, Syston, Leicestershire

The following gentlemen also on the same day passed their first professional examination.

Dunn, William Allison, St. Bartholomew's Hospital
Jenkinson, Harold, Leeds Hospital

MEDICAL VACANCIES.

The following vacancies are announced:—

BRISTOL GENERAL HOSPITAL.—House-Surgeon (£100 per annum, with board, lodging, and washing): applications, to Secretary, 24th.

DENBIGHSHIRE INFIRMARY and GENERAL DISPENSARY.—Surgeon.

DEVON AND EXETER HOSPITAL.—House-Surgeon (£150 per annum, with board and lodging): applications, to Edwin Force, Sec., 23rd; election, March 10th.

EAST LONDON HOSPITAL FOR CHILDREN, Ratcliff Cross—House-Surgeon: applications, to Ashton Warner, Sec., 21st.

GENERAL HOSPITAL, Birmingham—Assistant Dispenser (£40 per annum): applications, March 9th, to F. Fowke, House Governor and Secretary: election, 17th.

GLASGOW TOWNS HOSPITAL.—Assistant Medical Officer: applications to Dr. Robertson.

HOSPITAL FOR WOMEN, Soho Square—Physician: applications, to Henry B. Ingham, Sec., 18th.

KENT COUNTY OPHTHALMIC HOSPITAL, Maidstone—Consulting Surgeon: March 18th.

KERRY DISTRICT LUNATIC ASYLUM, Killarney—Resident Medical Superintendent: applications, 20th, to the Under Secretary, Dublin Castle.
 NORTH ORMESBY COTTAGE HOSPITAL, Middlesborough—House-Surgeon (£75 per annum, and private practice): applications to W. Skinner, Coatham, Redcar.
 NOTTINGHAM DISPENSARY—Hon. Physician; Four Hon. Consulting Surgeons; Assistant Resident Surgeon (£120 per annum); election, 27th. Applications to Martin J. Preston, Sec.
 QUEEN ADELAIDE DISPENSARY, Bethnal Green Road—House-Surgeon (£100 per annum, with furnished apartments, coal, and light): applications, 28th, to Rev. T. Peckston, Hon. Sec., 260, Cambridge Road; election, March 3rd.
 ROYAL SURREY COUNTY HOSPITAL, Guildford—Medical Officer: 23rd.
 SHEFFIELD PUBLIC HOSPITAL and DISPENSARY—Surgeon-Accoucheur; applications, 27th, to J. C. Hall, Hon. Sec.; election, March 1st.
 UNIVERSITY COLLEGE HOSPITAL—Assistant Obstetric Physician: applications, to John Robson, B.A., Sec. to Council, 22nd.
 WESTMINSTER HOSPITAL—Resident Obstetric Assistant: applications, 28th instant.
 WORCESTER GENERAL INFIRMARY—House-Surgeon's Assistant: applications, March 1st.
 YORK DISPENSARY—Resident Medical Officer: applications, March 4th.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

CLARKE.—On February 7th, at Gildersome, the wife of *J. C. Clarke, Esq., Surgeon, of a son.
 THURSTON.—On February 6th, at Ashford, Kent, the wife of *Edward Whitford Thurston, Esq., Surgeon, of a son.

MARRIAGE.

*CRAWFORD, Samuel Kirkes, M.D., to Sarah Futhey, niece of the late Patrick McConnell, Esq., Solicitor, both of Tandragee, at Elmwood Church, Belfast, on February 2nd.

DEATH.

HUNT, Samuel, Esq., at Sherwood, near Nottingham, on February 4th, aged 74.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
 TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.
 WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.
 THURSDAY!... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
 FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.
 SATURDAY ... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Dr. Edwards Crisp, "Two Specimens of Inflammatory Croup"; Mr. Spencer Watson, "Two exceptional Cases of Cataract"; Dr. Prosser James, "On Chloral."—Social Science Association, 8 P.M. Mr. J. B. Curgenvin, "On the Laws of France relating to Illegitimate Children, Foundlings, and Orphans; and also those relating to the Registration of Births and Deaths."
 TUESDAY.—Pathological Society of London, 8 P.M. The following specimens will be exhibited:—Dr. Morell Mackenzie, Constriction of the Trachea, with Syphilitic Deposits in the Liver; Growth in the Larynx of a Dog. Dr. Moxon, General Primary Colloid Cancer of the Skeleton; Syphilitic Inflammation of the Lung; Change of Grey to Yellow Tubercle of Lung; Mr. De Morgan, Tumour of Lower Jaw; Tumour from the Axilla. Mr. Wagstaffe, Fibrous Tumour of the Heart. Mr. Morris, Femoral Hernia, reduction *en masse*. Dr. Greenhow, Cancer of Oesophagus, with a Fistular Opening into the Trachea. Mr. Tay, Contents of a Ranula. Dr. Marcus Beck, Spindle-celled Sarcoma connected with Posterior Tibial Nerve. Dr. Dickinson, Spinal Cord in Tetanus; Mesenteric Tumour. Mr. Weeden Cooke, Medullary Sarcoma of Skull, associated with Scirrhus of Breast; Scirrhus of Brain, associated with Scirrhus of Breast.
 WEDNESDAY.—Hunterian Society. 7.30 P.M., Council Meeting. 8 P.M., Dr. Braxton Hicks, "On Intermittent Action of the Uterus throughout Pregnancy"; Dr. Pye Smith, "On Syphilitic Phthisis."
 FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Gant, "On the Process of Occlusion in Arteries after Acupressure, with its Relation to the Treatment of Surgical Hæmorrhage, and compared with Ligature and Torsion."—Quekett Microscopical Club (University College, Gower Street), 8 P.M. Mr. Leif-child, "On Sections of Coal and Fossil Woods"; Mr. W. H. Furlonge, "On the Minute Anatomy of Pulex Irritans."

EXPECTED OPERATIONS AT THE HOSPITALS.

KING'S COLLEGE HOSPITAL, Saturday, February 18th, 2 P.M. Ligature of the Subclavian, Operation for Varicose Veins, by Sir William Fergusson; Deligation of External Iliac Artery, by Mr. Henry Smith.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.
 CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.
 TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with stamps for the amount.
 WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.
 CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

"ANOTHER CERTIFYING SURGEON'S" letter shall appear next week.

TARIFF OF FEES.—Dr. Styrap's communication has been placed in the hands of Dr. A. P. Stewart, as Honorary Secretary of the Metropolitan Counties Branch.

MESSRS. BUTLER, BARCLAY, HICKMAN, and WARREN, who offered their medical services to the German Embassy in August 1870, are requested to send their present addresses to Major R. Roerdansy, 4, Marine Parade, Dover.

A. C. K.—A non-registered practitioner cannot recover fees; and the question of the possession of a registerable title may be raised in this way, or by direct process founded upon affirmative information. Where a name does not appear either in the *Medical Register* or in the *Medical Directory*, the presumptions are unfavourable, and we should think it would not be difficult to obtain more direct information. Write for advice to Dr. Francis Hawkins, and then consult a solicitor.

J. L. wishes to know if he can anywhere in London obtain some vaccine lymph fresh from the cow.

A STUDENT (Salop) asks where he can purchase a small and inexpensive cabinet of specimens of the articles of materia medica. Messrs. Southall, Son, and Dymond, Birmingham, supply such.

ANTI-VACCINATIONISTS.—William Hitchman, M.D., addresses to a Liverpool paper the most astounding letter we have seen lately in support of the anti-vaccination craze. Belladonna is his favourite preventive; "Six daughters of one captain, all unvaccinated on principle, have had confluent small-pox, which proves its preventive power, and recovered from it." Small-pox has often, in his experience, "produced a beneficial effect in the arrest of development of those tuberculous affections of the flesh known in general by the name of consumption and small-pox." He knows a lady who is suffering from small-pox "for the seventh occasion"! and a surgeon so susceptible that he takes the disease *every time he attends it*. A large number of the highest medical authorities in Great Britain, France, Italy, and Germany, have personally told him that even lymph from a true Jennerian vesicle *has* been a vehicle of syphilitic, scrofulous, or other loathsome affection, to the vaccinated person, and notably of syphilis. In cow-pox as now propagated, we have an efficient poisonous cause for the raising of latent germs of inherited disease in the human organism. This horribly disgusting disease can be well-nigh exterminated by preventive belladonna treatment. Then why spread such a "dust of death" as vaccine lymph? This is the gist of a letter which we read with inexpressible pain, that a man signing himself M.D. should venture to publish to ignorant people such pestilent and dangerous trash, and lead them to ignore and disparage the sole and harmless means of safety from small-pox—Jennerian vaccination.

IN justice to Mr. William Powell, F.R.C.S. (Exam.), House-Surgeon to the Torbay Infirmary, we have to state that the *Lancet* is entirely in error in confounding him with Mr. Powell, whose appointment at the Tendring Union was procured by means of a forged diploma of the College of Surgeons, and was therefore subsequently cancelled; and who came before the public in the Farnham Union inquiry.

THE position of "an occasional reader" is no doubt a painful one; he is, however, much mistaken in avoiding to consult his family medical adviser on the subject. It is impossible that anyone else should be in a better position to advise him. After hearing that advice, he must decide for himself, on grounds not purely medical, and which we should be going out of our province to discuss here.

SIR,—My attention has been called to the circulation by a London firm of a reprint of my "Note on Entire Wheat Flour", which was read at the Newcastle meeting. As I have no wish to be considered a "testimonial giver", will you allow me to say that this has been done entirely without my knowledge or sanction? When my note was sent to Newcastle, I was asked if I had any objection to copies of the note, after it had been read, being placed in the Annual Museum, with specimens of the "entire flour". I did not see any objection to this step being taken, though I expressly provided that the note should be marked "Private, for members of the British Medical Association only", and the note was so marked at the time, I know; but I see by a copy, which has just fallen into my hand, that this important feature is now wanting.

In reply to a letter I addressed the firm in question a day or two since, I received the following explanation, which speaks for itself. "We can assure you that we have acted quite innocently in the matter; and were under the impression that papers read at the Newcastle Congress were generally published in the local papers, and frequently reproduced afterwards in other ways. We have never in any way cited from the note as a testimonial from you, as we felt to do so would be an unwarrantable liberty; but we did not think there could be any harm in placing your paper in the hands of professional men, as a proof of the interest some physicians feel in the matter. However, as we seem to be mistaken, we beg to apologise, and to assure you that the note shall not be circulated for the future."

I value the good opinion of my associates too much not to be anxious to remove any misconception upon this matter, which, without the "explanation" I have given, might easily and fairly arise.
 I am, etc.,
 Sackville Street, February 8th, 1871.
 TILBURY FOX.

OUT-PATIENT HOSPITAL REFORM.

SIR,—Will you kindly allow me to acknowledge in your next issue the receipt of the following sums towards defraying the expenses incurred by the Out-Patient Hospital Reform Committee:—Mr. Walter Coulson, £1 1s.; Mr. G. C. Coles, 10s.; Mr. F. M. Corner, 10s.; Dr. Ogle (Derby), 5s.; Mr. Royes Bell, 5s.

I think, sir, you will agree with me that this is not a very satisfactory reply to the question which I asked in my last appeal, as to whether the meeting that appointed us a committee intended us to pay all expenses as well as do all the work. We have already paid our fair share of the former, and unless other donations are sent to me at once, I must make up the deficiency—about £20—as the accounts must be paid forthwith. Other expenses have also to be incurred to complete the work which the Committee had in hand. I am, etc.,

27, George Street, Hanover Square.

ALFRED MEADOWS.

ST. ANDREW'S DEGREES.

SIR,—Being a Scotchman and a graduate of a Scotch University, I cannot allow your correspondent's (S. U. M.) letter to pass unnoticed, as I consider it a most unjust and ungentlemanly attack upon Scotch Licensing Boards. I beg, therefore, to inform those who are ignorant of the fact, that there is no degree or qualification granted to anyone unless he have previously undergone a course of study of not less than four years' duration, and nor unless he possess a thorough knowledge of his profession, both practical and theoretical. His remarks upon the graduate who has, through his perseverance, steadiness, and praiseworthy ambition, placed himself in the honourable position which he now occupies, I think too silly to comment upon; and if he have nothing more to say against him than that he has risen from a humble origin, I would strongly advise him not to waste his time in future, by rushing into print with effusions such as his last, which must appear to every right-thinking man uncalled for, and almost beneath notice. In conclusion, let no young man be misled by such blunders, for I can assure them that, unless they are prepared to stand a searching examination, they will find themselves among those who have been "weighed in the balance and found wanting."

February 7th, 1871.

I am, etc.,

B. J. C.

SIR,—Your quotation from Dr. Leonard Sedgwick's remarks shews, I think, that there is very good foundation for the attack of the correspondent to whom he is replying. Engagement for five years in the routine of general practice, in addition to the possession of a Licence to practise Medicine and Surgery, is not, in the opinion of many, sufficient evidence of the candidate's having received that superior sort of education which ought to characterise the possessor of an University Degree. It is difficult to understand how the restriction, to which Dr. Leonard Sedgwick adverts, can in any way be an injustice to his University. The University of St. Andrew's possesses the privilege of granting its degrees of M.B., M.D., and C.M., under regulations precisely similar to those of the other Universities of Scotland. It possesses also an additional privilege, not accorded to the other Universities, of being able to grant its degree of M.D. to ten medical men, although they may not have fulfilled the usual University Curriculum. It already has, therefore, more power of granting degrees than any other University, and I think its Senate ought to be content. Some advocates of its recent proceedings have said that there is need of an Alma Mater, from which medical men of good position may be able to get the degree without going to College again; and such an arrangement is, perhaps, desirable. The University of St. Andrew's has no right, however, to arrogate to itself this important function without due consultation with all the other Universities of the United Kingdom.

I am, etc.,

HENRY R. WRIGHT.

Knaresborough, February 4th, 1871.

PROPAGATION OF DISEASE.

SIR,—As a Poor-law Medical Officer, I would call your attention to the following facts. A labourer's wife goes from this village to Cambridge to nurse a woman ill with small pox, and just prematurely confined of a six months' child. The woman dies, leaving two children and her husband. The husband has small-pox; and, when convalescing, leaves his home at Cambridge, with the two children and nurse, to go to the nurse's house (a very small low house, containing two rooms on the ground floor, occupied by the nurse and her husband), taking with them dirty linen, dresses, etc., worn by the deceased wife. The nurse has a daughter six months pregnant, four children, and husband living in this village. This daughter goes to her mother to help to wash the dirty linen of the small-pox patients, and takes her children with her. Fourteen days after the man's arrival and the nurse's return home, a grandchild, aged 7, falls ill of small-pox. Sixteen days after, the nurse's pregnant daughter falls ill of small-pox. This day, her husband is complaining of feeling ill. Can the Board of Guardians prosecute this woman for bringing small-pox into the village? It is not the first time she has done so.

Scarlet fever is also very prevalent here, and has been all the summer. The poor do not heed what is told them about isolation, and even send their children to school with the rash out on them. I had three children in the course of the summer brought to me from one school in this condition; and the master allows children to attend from the infected houses.

Ought not the sanitary laws to be put into force in every village as well as town? I have circulated printed notices, edited by Dr. Hardwicke, Medical Officer of Health for Paddington, but they take no heed, and go on visiting and taking their children with them to the infected houses. I am, etc.,

Cottenham.

J. BRIDGER.

* * The Sanitary Act (1866) makes these acts punishable.

LAY SERMONS.

OUR readers would have cause to reproach us if we were to withhold from publication the following communication forwarded for that purpose by Mr. Robert Carr, Clerk to the Sanitary Committee, Newcastle-upon-Tyne.

SIR,—It cannot be too frequently impressed upon sanitary authorities that the primary cause of the outbreak of this dreadful disease (speaking apart from ordinary infection, of course) is the inhalation of the ammoniacal evaporations from the urine of diseased humanity—*morbi genitalium*. Nature never intended that these excretions should be allowed to stagnate in the open day. Their germ-life should be destroyed, else will their dire effects be produced upon the susceptible, who may be brought within their influences. Fever, measles, chicken-pox, etc., as well as phthisis, that scourge in all countries, owe a large percentage of their increasing mortality to the exposure of the same "element"—urea—in every bed-chamber of the world, and which element, acting upon the delicate fibrine of the chest, whether in the human or the animal economy, produces more disease than any other ascertained "cause of death." The diagnosis is proverbially known to the medical profession, but not to the public scavengers, or the mother of a family. I am, etc.,

ROBERT R. CARR.

Newcastle-upon-Tyne.

LENGTH OF THE HUMAN FEMUR.

SIR,—Your correspondent, "M.D.", will find tables of the average length of the human femur and other bones in Europeans and Negroes, in Professor Humphry's *Human Skeleton*, pp. 105-110. Burmeister's measurements are given by Professor Carl Vogt, in his *Lectures on Man*, English edition, p. 179. More extended observations of this description, embracing a greater number of races, would form a valuable contribution to anthropological science. I am, etc.,

Devizes, January 30th, 1871.

JOHN THURNAM, M.D.

MEDICAL CO-OPERATION.

SIR,—In your issue for January 22nd, 1871, I read an extract from the *Telegraph* with regard to the Provident Dispensary here. It was established on the first of January, 1870, and, by dint of great advertising and employing canvassers, has now four thousand subscribers, who pay a halfpenny a week for adults, and a farthing for children, and these have to be attended by the medical officer (assisted by the honorary consulting physician, a person of eight years' standing in the profession) anywhere within a radius of three miles from the town hall. The last medical officer left at the year's end, because, on his applying for an increase of salary, the committee felt that he was not popular, and allowed him to resign. Although many and loud complaints were made against him by the patients, I believe he did his work as well as he could, considering the disadvantages under which he laboured. The statement that "several of the Preston doctors have recently given up their carriages" is altogether incorrect. It is true that two doctors have died within the last two years. Perhaps this is what the correspondent of the *Telegraph* means. I may, in conclusion, say that the whole of the profession here express their unmitigated satisfaction of the year's experience of being released from the thralldom of club-doctoring, both in a pecuniary and in a moral sense.

Preston, January 26th, 1870.

I am, etc.,

PROUD PRESTONIAN.

* * As several of the Branches of our Association took very decided action in this matter in many counties a year or two since, we should be glad to learn what are the experience and the opinions of members as to the effect of that action.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, Jan. 28th; The New York Medical Record, Feb. 2nd; The Boston Medical and Surgical Journal, Feb. 2nd; The Madras Mail, Dec. 5th; The Shield, Feb. 11th; The Malvern News, Feb. 4th; The Southport Independent, Feb. 8th; The Kidderminster Times, Feb. 4th; The Redditch Indicator, Feb. 11th; The Liverpool Mercury, Feb. 13th; The Philadelphia Medical Times, Feb. 1st; The Clonmel Chronicle; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Priestley, London; Dr. Braxton Hicks, London; Dr. Littleton, Plymouth; Dr. Moore, Dublin; Dr. Procter, York; Mr. Reginald Harrison, Liverpool; Mr. G. B. Denton, Liverpool; Dr. J. Simpson, Plymouth; Dr. Waters, Chester; Dr. Clapton, London; Mr. Board, Bristol; Mr. Savage, Goole; Dr. Braidwood, Birkenhead; Mr. J. N. Stevens, Plymouth; Dr. Harley, Saffron Walden; Dr. Hardie, Manchester; Mr. Porter, Blackpool; Mr. J. C. Clarke, Gildersome; Mr. E. W. Thurston, Ashford; Messrs. Calvert and Co., Manchester; Mr. J. R. Walker, Corwen; The Secretary of the Hunterian Society; The Secretary of the Clinical Society; The Secretary of the Social Science Association; Dr. Phillips, London; The Secretary of the Pathological Society; Mr. C. Roberts, London; Dr. Aspinall, Huntingdon; etc.

LETTERS, ETC. (with enclosures), from:—

Mr. Erasmus Wilson, London; Dr. C. J. B. Williams, London; Dr. Sieveking, London; Dr. J. Crichton Browne, Wakefield; Mr. Waren Tay, London; Our Paris Correspondent; Mr. W. Whitehead, Manchester; Dr. Kidd, Dublin; The Secretary of the Obstetrical Society; Dr. Gibb, Newcastle-upon-Tyne; Our Dublin Correspondent; Mr. Hulke, London; Mr. Jessop, Leeds; Mr. Jonathan Hutchinson, London; Dr. T. Boor Crosby, London; Dr. H. A. Gubbin, Gifford; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Our Glasgow Correspondent; Dr. S. K. Crawford, Tanderagee; Dr. G. H. Philipson, Newcastle-upon-Tyne; Mr. F. W. Brown, Uppingham; Messrs. Ansar, Harford, & Co., London; Mr. Worth, Nottingham; Mr. Wanklyn, London; Sir William Fergusson, London; Dr. Lionel Beale, London; Dr. Rutherford, Edinburgh; Dr. Maunsell, Dublin; Mr. George Freeman, London; Dr. Styrup, Shrewsbury; Dr. T. Clifford Allbutt, Leeds; Mr. William Adams, London; Dr. Waters, Chester; Dr. Gibb, Newcastle-upon-Tyne; etc.

BOOKS, ETC., RECEIVED.

The Discovery of the Nature of the Spleen, from an Investigation of the Lateral Homologies of the Liver, Stomach, and Intestinal Canal. By Henry R. Silver, B.A., M.D. London: Churchill and Sons. 1870.
On a Localised Outbreak of Typhoid Fever in Islington during the months of July and August 1870, traced to the use of Impure Milk. By E. Ballard, M.D. London: 1871.
A Farther Note on the Alleged Increase of Lunacy. By C. A. Lockhart Robertson, M.D. London: 1871.
The Deformities of the Human Body; a System of Orthopædic Surgery: being a Course of Lectures delivered at St. George's Hospital. By B. E. Brodhurst. London: 1871.
Practical Lithotomy and Lithotrity. By Sir Henry Thompson. London: 1871.
The Sixth Annual Report of the Sanitary Commissioner with the Government of India, 1869. Calcutta: 1870.
Lectures on Aural Catarrh, or the Commonest Forms of Deafness, and their Cure. By Peter Allen, M.D. London: 1871.
On Transplantation or Engrafting of Skin. By J. Woodman. London: 1871.
The Physiological Laws of Human Increase. By Nathan Allen, M.D. Philadelphia: 1870.
Population: its Laws of Increase. By Nathan Allen, M.D. Philadelphia: 1870.

LECTURES ON DERMATOLOGY.

DELIVERED AT

The Royal College of Surgeons of England.

BY ERASMUS WILSON, F.R.S.,

Professor of Dermatology in the College.

LECTURE II.

ERYTHEMATOUS ECZEMA not unfrequently presents the characters of a general eruption, bursting out like an exanthema over the whole or the greater part of the body: such was the case in a gentleman of mature age who had previously been attacked with catarrh, bronchitis, and rheumatism, and in whom, on the outbreak of the eczema, the other affections disappeared. Not only was the substitutive capacity of the eczema manifested in this case, but a peculiarity of distribution was also observable. The eruption consisted of red puncta and small blotches ranging in size between two or three lines and nearly an inch in greatest diameter; they were most abundant on the dorsal region of the trunk, where they were oblong in figure, scarcely appreciably elevated, of a bright red colour, punctated with spots of a deeper hue, and subsequently in a state of epidermic exfoliation. The long diameter of the blotches and the seeming course of their distribution were directed from the spinal column with a gentle sweep downwards to the side of the trunk, and thence upwards to the middle line in front. It is evident, from an inspection of the drawing, that they follow the same line as the anterior spinal nerves, as the blotches of eruption of herpes zoster, or the spots and lines of colour of the tiger's or the leopard's skin; and it is equally evident that the whole of these phenomena obey the same neurotic law.

Next in succession to eczema erythematousum, our collection affords an ample illustration of a form of eczema which is most strongly characterised by the extension of the inflammatory action to the follicles, so as to give rise to a state of folliculitis; and the folliculitis is made evident by prominence of the pores of the skin, so as to constitute minute pimples—pimples which may be described as an exaggeration of cutis anserina; to this form of the eruption the designation of *eczema papulosum* is especially applicable. In some instances, every follicle would seem to be represented by a corresponding papule; the papulæ are "crowded" together in great number, and the case is distinguished as *eczema papulosum confertum*. In other instances, the papulæ are crowded in small clusters, suggesting the idea of a bunch of grapes—hence another term, *eczema papulosum corymbosum*. In a third series, the eczematous-papulous eruption is circumscribed, *circumscriptum*; circumscribed and discrete, or circumscribed and confluent: and in a fourth series, the papulæ are more or less scattered or disseminated. It would be interesting to determine why a simple inflammation of the skin is one while content with the manifestation of redness and exfoliation alone, and another while, by fixing chiefly on the follicles, gives rise to papulæ, accompanied with exfoliation of the epidermis; but for the present it must be sufficient that we take note that eczematous dermatitis is capable of giving rise to papulæ.

The confluent form of *eczema papulosum* is far from uncommon on the back of the hands, where it gives rise to a blotch more or less distinctly circumscribed and circular in its figure. These blotches are composed of papulæ, which have the appearance of blending with each other, or, as it were, of running or flowing together—hence their subjective name, *confluens*. If we examine them closely, the blotches are seen to be papulated on the surface; while around their circumference papulæ may be observed, which are sometimes isolated, sometimes congregated in clusters, and sometimes more or less blended together. If we had the opportunity of observing the process of formation of these blotches from the beginning, we should find that at first all the papulæ are isolated, and that they are subsequently united into a common blotch by the congestion and infiltration of the interpapular or interfollicular portion of the skin. Not unfrequently the blotch is swollen and somewhat œdematous from infiltration; sometimes it gives out an ichorous exudation, and sometimes is coated over with a thin crust, resulting from the desiccation of discharge. It was to cases such as these, combining the papular lesion with those of infiltration and thickening, a tendency to exudation and fission, and the frequent invasion of fits of

violent itching, that Willan allotted the name of *lichen agrius*, the objective term being intended to indicate its papular character, and the latter or subjective term the fierceness of its pruritus. But, without reference to its association with eczema in other ways, the polymorphic lesion presented by the eruption, and especially its tendency to ichorous exudation, mark it as being in no essential respect different from that disease.

To those who object that the distinctions of form which have just been pointed out have no practical object, the answer is obvious, that we are simply observing Nature and recording what we see; and if no other purpose be gained by the inquiry, the lesson is taught us that an eruption may, under different circumstances of health, constitution, and locality, assume such a variety of appearances that variations of form may, unless due warning be given, be taken for different diseases. Of this fact we have an example in the exfoliative dermatitis, which agrees in every respect with eczema, but which has been termed by Devergie "pityriasis"; and again in the instance of the lichen agrius of Willan.

Among the various and varying features of eczema, there is none which is of more importance, practically, or is more interesting in itself, than that upon which is founded the distinction of dry eczema and moist eczema. It is a difference which depends essentially on the constitution and temperament of the patient; in the young, in the lymphatic temperament, in a constitution abounding with fluids, and at the height of the eruption, the eczema will be moist and accompanied with ichorous and sometimes with purulent exudation; while in the aged, in the temperaments deficient in fluids, and in the chronic stage of the disorder, the eruption will be dry. The drawing and the casts before us exhibit excellently well the Willanean type of eczema—the minute vesicles which were so long thought to be essential to eczema, and have been sought for with unceasing diligence with the aid of the exploring lens, but which further experience has shown to be in reality an accidental condition. The patient from whom these casts were taken was a young woman of lymphatic sanguine temperament, abounding in sanguineous fluids: the appearance of the eruption on her arm, dripping with discharge, indicates a moist form of eczema. Hers was the constitution in which we should expect that inflammation would be accompanied with infiltration and swelling, and both of these pathological lesions we find manifested in her hands. And then we have another process, which may be regarded in the light of a salutary effort of Nature; namely, the exudation of the accumulated and imprisoned fluids on the surface of the skin, where they lift up the cuticle into minute blisters; and where in sundry places these minute vesicles, by their confluence, give rise to blisters, usually multilocular, and of considerable extent. How admirably these phenomena portray the pathology of inflammation, and in an especial degree the pathology of inflammation of the skin, of dermatitis, of eczema, for the terms are very nearly synonymous.

It would be idle to regard those vesicles, that exudation, or the fluid which fills the vesicles, as anything specific; for the phenomenon is really nothing more than the necessary exudation which is determined from the infiltrated tissues to the surface by an inflamed skin. It may, however, be worth our while to examine the surface of these casts with a lens, if it be only to observe the difference of figure of the vesicles and their manner of distribution. It is here also that I may call attention to the fact that, with a higher degree of inflammation, the fluid contents of the vesicles, instead of being transparent, become opalescent and yellow; while, in the more inflamed parts around the circumference of the eruption, the contents give the appearance of pustules, and the eruption in consequence receives the name of *eczema pustulosum*.

Eczema vesiculosum may be regarded as the initiative form of eczema humidum, or moist eczema; but the exudation or discharge poured out by the inflamed skin is by no means limited to the production of vesicles; it is excreted in abundance from the excoriated surfaces that are generally present in eczematous blotches; sometimes it issues in minute beads from the apex of the follicles; sometimes it oozes from rhagades or cracks in the hard and infiltrated skin; and sometimes it appears on the surface of the unbroken skin, in the guise of a secretion. To all these forms a term is applied which indicates the presence of, or proneness to, discharge—a term which is equally applicable to the whole, namely, *eczema ichorosum*. And when, in addition to its mere presence, it renders itself remarkable by its abundance, it is sometimes termed *eczema madidans*; and we are bound to admit that the term "madidans" is not inaptly applied when we see the discharge dripping almost in rills from the inflamed surface, and wetting through layer after layer of cloths wrapped about the part or placed around it for protection.

It must be admitted that the skin affords peculiar facilities for examining and studying pathological operations. We have no need of the help of scientific apparatus to pursue our inquiry; the eye and the hand

alone, the especial instruments of the surgeon's art, guided by an intelligent brain, are our only requisite aids to skilful research. Neither are we, as in the rest of the frame, much the gainers by necropsical exploration. Indeed, it would seem that the skin, being at all times under our visual observation, and always within our reach, is especially adapted to supply a field whereon the pathological phenomena of internal and concealed organs may be studied, and perhaps better understood than in the organs themselves. In the instance of inflammation, these remarks require little or no corroboration; but it is also my belief that considerable light may be thrown on other and more obscure pathological processes by the observation of similar phenomena taking place in the skin.

A survey of the pathological processes affecting the integument tends to show that the state of inflammation of the skin which is denominated eczema may present itself to our observation in a dry as well as in a moist form; in the dry form being represented by simple hyperæmia and exfoliation or desquamation; and in the moist form, by hyperæmia, vesiculation, exudation, and incrustation. While not unfrequently the eruption presents the double form, in general it may be dry, but, after rubbing or scratching, will burst forth into a state of moisture; and it is one of the pathognomonic characters of eczema of every kind, to be liable, in the presence of any aggravating cause, to pour out a more or less abundant exudation.

CLINICAL LECTURE

ON THE

SCROFULOUS DISEASES OF CHILDREN.

By EDWARD CLAPTON, M.D., F.R.C.P.,
Physician to St. Thomas's Hospital.

GENTLEMEN,—I purpose to-day giving you a rapid sketch of the principal scrofulous diseases which affect children. Strictly speaking, this can hardly be termed a clinical lecture, inasmuch as I have no patients in the wards at the present time suffering from any of these affections; but it is intended as a sequel to my last lectures on Phthisis and the Scrofulous Diseases of Adults. My present remarks are based almost entirely on cases which occurred amongst the medical out-patients whom I have only recently relinquished. Let me take this opportunity of urging upon you the importance of devoting as much of your time, valuable as it is, as you can spare to attending the out-patient practice of the hospital. It is true, this practice is very unsatisfactory in many respects—more so, perhaps, to the physicians and surgeons than to the students; but you will find many diseases which you will never have a chance of observing in the wards, and opportunities will be afforded you of obtaining facilities to clinical study, which can hardly be obtained elsewhere. Even the great run of common and uninteresting complaints are not without their value, as it is of such that the majority of your cases will consist when in practice.

Amongst the poor of London, scrofula in one form or other is fearfully common. A very large proportion of the children who attend as out-patients suffer from it.

There may not be any marked manifestations, but that condition which may be termed scrofulous debility is perhaps the most common of all. The characteristic symptoms are well known:—a delicate appearance generally; loss of flesh; muscular fatigue after very slight exertion; a rapid irritable pulse; cheeks pale, though flushed by the slightest excitement; large pupils; tongue coated and studded with prominent papillæ; offensive breath; capricious appetite; and, in the majority of instances, mental precocity. This constitutional state is due, as a rule, to hereditary causes; but it is obviously aggravated, and may even be engendered, by bad air, bad food, and bad clothing.

Several instances have fallen under my notice of what may be termed scrofulous fever, the symptoms being not unlike those of acute tuberculosis, only that death occurred before there were any actual tubercular deposits.

The following recent case is a good example. C. M., a girl, aged ten years and a half, residing at Camberwell, had always been considered very healthy until three weeks previous to her death. Four or five brothers and sisters had died of rapid phthisis, inherited, probably, from their mother, who belonged to a very consumptive family, but was still living. The young patient suffered from an intensely feverish condition, without any of the characteristics of the ordinary forms of fever; a very frequent pulse; skin hot, but perspiring; rapid emaciation; senses acute; white coated tongue; no pain, diarrhoea, or delirium; no physical signs of disease in the chest. She was conscious and

sensible to the last. On a *post mortem* examination, there were found no tubercular deposits in any part, and, indeed, no evidences of local disease. Had the patient lived a short time longer, there would doubtless have been considerable tubercular disease of various organs.

Amongst children, scrofula generally exhibits itself in one or other of the following forms:—glandular disease; tubercular peritonitis; *tabes mesenterica*; tubercular meningitis; and cerebral tubercle. Other conditions, as scrofulous ophthalmia, scrofulous disease of joints, etc., fall under the surgeon's care.

Scrofulous Disease of Glands.—This is found chiefly in the neck, sometimes in the axilla or groin. It is always associated with some of those general symptoms already mentioned; indeed, there is very little difficulty as to diagnosis. Of course the glands may become enlarged from other causes, as injuries, inflammations, skin-diseases, etc., in their neighbourhood, but these are easily detected; and in such cases the glandular swellings are smaller, more even, and more sharply defined in outline. Suppuration does not occur in the majority of cases of scrofulous glands, as far as I have seen; and when it does, it is very slow and sluggish, the skin first becoming purplish-red and adherent. I do not think it a good plan to make an incision until it becomes evident that by further delay an ulcerous opening must speedily form, in which case considerable and permanent disfigurement will ensue by reason of a large, irregular, ugly cicatrix. I believe the best local treatment to be a linseed meal or bread poultice applied every night, with a little iodine ointment spread on that part covering the enlarged glands. As to internal treatment, iodide of iron with cod-liver oil is chiefly relied on, though in the majority of cases this should be preceded by a purgative dose of grey powder and rhubarb, and a mixture containing chlorate of potash and bark. I have always found chlorate of potash peculiarly suitable for scrofulous children whenever there is a febrile condition or gastric disturbance. Steel wine with infusion of quassia, and an occasional dose of scammony and calomel, are generally ordered when the patient is troubled with ascarides—a very frequent accompaniment of the scrofulous condition. Sometimes, instead of ascarides, a gelatinous-looking mass is passed after this purgative dose, and subsequently the young patients greatly improve in health. In such cases the mucous membrane of the intestines is lined, as it were, with a varnish of tough unhealthy mucus, which prevents the proper absorption and assimilation of food, and beneath which ascarides are readily developed. In cases of increasing emaciation, when the cod-liver oil cannot be taken or retained, one or two teaspoonfuls of glycerine in milk form an excellent substitute, and under its use these thin delicate children certainly seem to acquire fat and strength. Open-air exercise should always be enjoined, as also warm clothing, and wholesome, generous, unstimulating diet; but it seems a mockery to enter into the subject of diet with respect to the great majority of poor children who are brought as out-patients to hospitals.

Strumous Ascites is the result of chronic tubercular peritonitis. This kind of inflammation almost always runs on slowly and insidiously to the effusion of serum. No great amount of pain attends it, such as is found in other forms of peritonitis—sometimes only aching or a sense of uneasiness arising from distention. It is produced by tubercular deposits in the peritoneum, or rather in the subperitoneal tissue. A very slight deposit may be sufficient to cause extensive ascites. Sometimes, however, countless numbers of miliary tubercles have been found after death lying within the folds of the omentum. I have often been surprised at the recoveries which take place from this form of ascites, even when no diuretics or eliminatives of any kind have been given. Although the strumous diathesis may have been well marked, yet the recoveries seem to be complete as far as they go. I remember one case in particular, that of a lad of 14, on whom I wished at one time to have the operation of paracentesis performed, so extreme was the swelling, but it entirely subsided under the use of mercurial alteratives, quinine and iron, and cod-liver oil. This plan of treatment answers much better in such cases than acting powerfully upon the various secretions. In a few rare instances, ascites has arisen from enlarged scrofulous glands pressing on the vena portæ.

Tabes Mesenterica.—I do not think that this disease is so common as is generally considered. Thin scrofulous-looking children with large abdomens are doubtless met with very frequently, and they might hastily be recorded as cases of *tabes mesenterica*; but, if we account accurately for all such affections as chronic tubercular peritonitis, atonic dyspepsia, portal congestion with distended intestines or fecal accumulation, and that kind of chronic tympanitis which accompanies worms in weakly children with depraved appetites, those remaining as true *tabes mesenterica* will be found to be comparatively few. This, perhaps, may account for the numerous so-called cures of this disease, which in itself is really as fatal as phthisis pulmonalis. Little can be done for these patients beyond attending to their general health, and relieving urgent

symptoms as they arise, such as pain, irritation of the bowels, diarrhoea, etc. For the latter a mixture containing rhatany, paregoric, and glycerine seems to answer best. Such patients are immensely benefited for a time by being sent, when possible, to some eligible sea-side place, as Margate.

Acute Strumous Hydrocephalus, the result of tubercular meningitis, is not often seen in London hospitals, although tubercle of the brain is very common, at least amongst the out-patients. How many children we find labouring under the following symptoms: a pale, delicate appearance; dilated pupils, perhaps strabismus; frequent headache or heaviness of head; occasional vomiting coming on suddenly, preceded by vertigo and not necessarily occurring after food; a slow and perhaps irregular pulse; capricious appetite; starting or shrieking, or grating the teeth at night, and sometimes epileptic seizures. In the majority of instances there are evidences of scrofulous disease in the chest or abdomen, or in the glands of the neck. Some of these symptoms may be slight, or even wanting, but the indications as to the true nature of the case are generally sufficiently evident. The great fear is lest the attacks of vomiting should be mistaken for simple biliousness, or gastric disturbance of a dyspeptic nature, and treated accordingly. Such an error of diagnosis, and consequent prognosis, would be likely to prove very damaging to your reputation in practice, though hardly so detrimental to the young patients as might be supposed. They are generally greatly relieved for a time by cholagogues, aperients, and even mercurials, followed by stomachic tonics; but the distressing symptoms recur again and again, and before long, more decided cerebral symptoms indicate the true nature of the disease. Sooner or later a fatal termination ensues, whatever treatment may be adopted. These young out-patients mostly attend with great regularity for a considerable time without any marked change, and then we miss them all at once. They have been seized with either convulsions, or coma, or acute hydrocephalus, and are quickly carried off. When the disease has come to this pass, indeed, recovery is worse than death; for they are sure to be afflicted with incurable paralysis (if the central part of the brain have been affected), or epileptic convulsions (if the surface), or the mental faculties will be hopelessly impaired. Other distressing conditions will exist in addition, according as particular nerves are implicated—amaurosis, if the second nerve be affected; ptosis, if the third; double vision and strabismus, if the sixth. As to the treatment of cerebral tubercle whilst still in an early and quiescent state, and unattended by any of the graver symptoms, I have always found more benefit from hypophosphites and cod-liver oil, with an occasional dose of calomel and rhubarb, than from any other medicines.

The following case is a fair example. J. B., aged 8, came under my care in January last (1870) as an out-patient. He had always been a delicate and somewhat rickety child, and had suffered severely from the usual diseases of infancy and childhood. His mother attributed his present illness to exposure to the sun the previous autumn. The symptoms were frequent frontal headache; occasional slight convulsive fits affecting the left side; shrieking in his sleep; fretfulness and general excitability; slight otorrhoea; occasional vomiting; and torpid bowels. He was treated at first by mild aperients and stomachics; subsequently by quinate of lime, under which his general health improved for a short time; then by iodide of iron, which seemed to cause more intense headache and general feverishness; and lastly by hypophosphite of soda and cod-liver oil, which he continued a long time with marked, though gradual, improvement in every respect. In June he died almost suddenly. He had fallen down and struck his head against a door. This was quickly followed by complete stupor, with paralysis of the left side, and death two days after. In another recent case of a similar character, a boy's death was attributed to a "smart tap" on the side of the head by a schoolmaster. I need hardly say that this is a culpable way of inflicting punishment on a child under any circumstances; but, in the case of delicate children with latent cerebral disease, it must always be attended with considerable danger.

With respect to the general statistics of deaths from tubercular diseases, I find in the last published annual report of the Registrar-General, that, out of the 480,000 deaths (in round numbers) in England and Wales from all causes, no fewer than 68,300, or about 1 in 7, were from the various forms of tubercular disease. Of these, 16,000 were under five years of age: 51,400 were from phthisis; 7,200 from tubercular hydrocephalus; 6,900 from *tabes mesenterica* (including tubercular peritonitis); and 2,800 from other scrofulous diseases. Of those who died of hydrocephalus, nearly two-thirds were under two years of age; and of those who died of *tabes mesenterica*, nearly one-half were under one year, and almost all under six. Altogether, this is a frightful score; but it is some satisfaction to know that the deaths from tubercular diseases, including consumption, have been, on an average of years, steadily decreasing.

CLINICAL LECTURE

ON

ACUTE SYNOVITIS AND TRAUMATIC ANEURISM.

Delivered at the Leeds School of Medicine.

By T. R. JESSOP, F.R.C.S.,

Surgeon to the Leeds General Infirmary, etc.

GENTLEMEN,—During the two months which have elapsed since I last addressed you in this place, several cases of surpassing interest have been admitted into my wards in the Hospital. From these I have selected two, which seem to me to present special points of importance for comment. The first is a case of acute synovitis of the knee-joint resulting from injury, for the relief of which I adopted a new mode of treatment. Here are extracts from the notes as furnished to me by my dresser, Mr. Heald.

John Handly, a collier, aged 20, was admitted into No. 4 Ward on the 22nd of last November. He stated that three weeks previously, when at work in the pit, he was accidentally knocked down, that he fell with his right knee wedged in between two corves, and that he lay in this position for a very considerable time before he could be extricated. On being placed upon his feet, he was able to walk home, assisted by two of his mates. On the following morning, as the joint was much swollen and very painful, his friends applied for and obtained the help of the dispensary surgeons, under whose care he remained until his admission into the Infirmary. When first seen at the Infirmary, the joint was tense with fluid, appeared twice as large as the left knee, and was hot, shining, very painful, and exquisitely tender. There was a general febrile condition—hot skin, dry tongue, thirst, and rapid pulse. He was ordered to have the limb placed in an extended position, upon a McIntyre's splint; to have eight leeches applied to the joint, and these to be followed by an evaporating lotion. Milk-diet, an aperient, a saline mixture, and a chloral draught at night, were prescribed. On the 30th November an ice-bag was substituted for the lotion. This, I need hardly tell you, is the usual treatment of acute synovitis, and in the majority of such cases will succeed in effecting a cure. In this instance, however, it did not suffice; for, from the time of his admission (the 22nd November) up to the 4th December his condition gradually grew worse; the joint became more tense; the pain did not abate; the febrile condition increased; all the active symptoms remained; and the temperature of his body had reached 102, never having been below 100. Under these circumstances, I determined to adopt a plan of treatment with which I had previously succeeded in an exactly similar case; viz., to open the joint under the protection of carbolic acid.

Your books will teach you that a joint should only be opened when the acute inflammation has run on to suppuration. So long as there is a hope that the inflammation may be subdued, so long are you to withhold your knife; but the moment the inflammation has gone on to the suppurative stage, then the joint is to be opened. That, as a general rule, is good teaching: latterly, however, some surgeons have become dissatisfied with the "usual" mode of treating these cases—finding, no doubt, that in a not inconsiderable number of instances destruction of the joint has been the result—and have ventured to do that which, I imagine, every surgeon of much experience has over and over again longed to do; viz., to give exit to the fluid, whose presence in the joint, by keeping the synovial membrane in a continued state of tension, becomes not unfrequently the cause of destruction. The plan which they have adopted is to tap the joint with a trocar, hoping thereby to avoid the introduction of something which—I will not use the word "germs", for although, as you well know, I am a firm believer in the antiseptic treatment, I am not quite prepared to accept Professor Lister's assertion, that a full belief in the germ-theory of putrefaction is absolutely essential to success in its application to surgery—I prefer to call septic material, the entrance of which would almost inevitably lead to putrefaction and consequent intense suppuration in the joint.

Some time before I saw any account of the treatment of acute synovitis by tapping, I opened, antiseptically, with a bistoury, the knee-joint of a man (a patient in No. 3 Ward) whom you will remember suffering from the effects of an injury received a short time before his admission. The operation was followed by the best possible result.

In the case which we are considering, on the 4th Dec. I made an opening into the joint, an inch in length, in the axis of the thigh, commencing

ing an inch above the patella. The immediate result of the incision was, that from eight to ten ounces of clear fluid exuded, but suspended in it were large flakes of lymph, some of which now and then blocked up the opening, so that I was obliged to enlarge the wound to the extent of at least half-an-inch. In making the incision, and in the subsequent treatment, I adopted to the full the directions of Professor Lister, which I have had the privilege of hearing from his own lips.

Now, mark the subsequent course. Here is the temperature chart.

				M.			E.
November	27	...	...	101.2	...	...	100.0
"	28	...	...	101.2	...	...	100.2
"	29	...	...	100.2	...	...	100.0
"	30	...	...	100.0	...	...	100.6
December	1	...	...	100.0	...	...	101.6
"	2	...	...	100.4	...	...	101.2
"	3	...	...	100.2	...	...	101.8*
"	4	...	...	100.0	...	...	101.0
"	5	...	...	100.0	...	...	100.6
"	6	...	...	99.6	...	...	100.0
"	7	...	...	99.6	...	...	100.0
"	8	...	...	99.0	...	...	100.0
"	9	...	...	98.8	...	...	98.8
"	10	...	...	98.0	...	...	99.0
"	11	...	...	98.2	...	...	98.4
"	12	...	...	98.3	...	...	98.4

The asterisk marks the time at which the opening was made. You will see that from that time forth the thermometer showed a steady and rapid improvement; and the benefit was exhibited in other ways. The pain, which had been agonising, at once ceased; the swelling never returned; the febrile condition disappeared. I kept him in the ward until the 2nd January, when he was sent to the Convalescent Hospital with a movable painless joint.

Do not go away with the idea that I advocate the opening of the joint in every case of acute synovitis. But, whenever you have reason to believe that the case is threatening to go on to suppuration, and you have given your patient the benefit of leeches, ice, evaporating lotions, salines, absolute rest, and so on, then you will be justified in adopting the treatment which I have described, with the view of *preventing* suppuration, provided only you make use of the precautions I have recommended against the putrefaction of the fluid remaining in the joint: and I prefer a tolerably free incision to an opening with a trocar, as better calculated effectually to put an end to tension, and because it is essential where, as in the case I have narrated, large flakes of lymph help to fill the joint. I have now adopted this plan in three cases, and in each the success has been perfect.

The second case to which I wish to draw your attention is one of traumatic aneurism in the neck, in dealing with which certain difficulties arose. For the notes of the case I am indebted to my House-Surgeon, Mr. Edward Hey.

William Hays, aged 29, was admitted on November 20th. On the night of the 29th October, whilst walking in the street, he was stabbed on the left side of the neck, just below the jaw. When picked up by the police, he was bathed in blood, blanched, and nearly pulseless. Mr. Corrie, who was quickly in attendance upon him, succeeded in arresting the bleeding by means of a lint-compress and bandage. During the next fortnight, there was occasional slight oozing of blood, and at the end of that time the patient noticed a small swelling just below the wound. On November 19th, at midnight, bleeding came on very violently: it was stopped by compression, but it broke out again at 1 P.M. the next day, and he was then brought to the Infirmary.

On admission there was a wound, about the size of a sixpence, on the left side of the neck, just below the jaw, and about an inch in front of the angle. Immediately below the wound was a small swelling, about the size of a marble. At twelve o'clock on the night of his admission profuse hæmorrhage commenced, and, on removing the bandage, arterial blood spouted from the wound in a thick stream. A pad of lint and a bandage effectually controlled it.

November 21st. At noon there began to be considerable oozing; and, on reapplying the bandage, it was noticed that the swelling in the neck was much larger, being of the size of half an ordinary orange. There was a peculiar huskiness of the voice with difficulty of articulation, like that which is heard when there is pressure on the recurrent laryngeal nerve. I now saw the case, and decided at once to operate. The swelling was freely laid open by an incision commencing at the wound, and extending downwards and outwards to the anterior border of the sterno-mastoid muscle, and several large clots were turned out. Profuse arterial bleeding immediately supervened, but was at once arrested by pressure with the finger beneath the jaw. On careful exami-

nation, it was found that the wounded vessel was effectually concealed by the jaw, and that it would be necessary to cut through this bone in order to get at it. The incision was accordingly extended through the cheek to the angle of the mouth. The coronary and labial arteries were secured with catgut ligatures as soon as they were divided. The flaps having been turned upwards and downwards, the jaw was sawn through just in front of the angle, and the subjacent parts fully exposed. A smooth round tumour, of the size of a filbert, was now seen, which proved to be an aneurism of the facial artery. This was laid open, and the bleeding orifice was seized with artery-forceps, and tied with a strong silk ligature. A small piece of perchloride of iron was placed in a deep recess of the wound, from which a little oozing proceeded. On placing the jaw in position, it became clear that there would be difficulty in retaining the cut ends in apposition. With an Archimedean drill, therefore, corresponding holes were bored in an oblique direction through the fragments, and, by means of a double iron wire passed through them, the bone was tied in accurate position. Four hare-lip pins and two wire sutures were employed in closing the wound. A pad of lint and a bandage completed the dressing. He lost very little blood during the operation.

November 22nd. There had been no more bleeding, and he was very comfortable. The line of the teeth was perfect.

November 25th. The dressings were changed, and the hare-lip pins removed. The whole of the wound made at the time of the operation had healed by first intention. The original wound looked healthy.

He went on well till the 28th November, when he had a severe attack of bleeding from the old wound. This was stopped by the application of ice, and nothing more was seen till December 3rd, when there was slight bleeding from the mouth, and it was noticed that the line of the teeth was uneven.

On December 4th, at midnight, the bleeding recurred with such violence from the mouth that, on being sent for, I determined to open the wound out again. The wire which had fastened the jaw had given way, allowing the fragments to override one another; and both portions of bone were found denuded of periosteum to the extent of about half-an-inch. On turning the bones aside and exposing the parts beneath, blood was seen to pour freely from an opening at the bottom of the wound. The bleeding vessel was transfixed with a tenaculum, and secured by a strong silk ligature. The jaw, having been re-adjusted, was secured with four thicknesses of iron-wire, and the external wound was closed as on the former occasion.

December 5th. There was no more bleeding; the face was rather swollen; temperature in axilla, 105 Fahrenheit.

December 6th. The face was erysipelatous. He was removed to a private ward.

December 7th. There was no spreading of the erysipelas. He took beef-tea and milk well.

December 9th. The swelling of the face was rapidly subsiding. He was ordered to have a gutta-percha splint fitted to the jaw.

From this time he improved quickly. When he was made an out-patient on January 7th, the wound had quite healed, the line of the teeth was perfect, and there was no perceptible movement at the point of division through the jaw.

I will now have the patient brought in for you to examine. It is a little more than seven weeks since the last operation. You will observe the healed cicatrix, extending from the angle of the mouth downwards and outwards over the jaw and neck to the edge of the sterno-mastoid muscle. Put your finger in the mouth and feel that the line of the teeth is quite perfect. Gently manipulate the jaw, and you will observe how securely fixed it is. He can, moreover, open and close his mouth with freedom. He has brought this little shell of exfoliated bone, about the size of half a threepenny coin, which came away through the external wound about a week ago. He has seen nothing of the wire, nor can I make out its outline on careful examination.

I have taken every opportunity when going round the wards of drawing your attention to this case, and I have brought it more prominently before your notice to-day, because I wish it to be the means of indelibly fixing upon your minds the proper mode of dealing with a wounded artery.

When the man first came under my notice at the Infirmary, blood was flowing freely through a small wound from a cavity, which caused a swelling externally as large as half an ordinary orange. On hearing the history of the case, all I could say was, that *some* large artery had been wounded; it was impossible to do more than guess which artery it was; it might be the facial, the lingual, or some other branch of the external carotid; it might be the external carotid itself, or even the internal or the common carotid. Nobody could say. Clearly the blood came either directly from the common carotid, or indirectly from a primary or secondary branch of that artery; and one might have been

tempted, on that account, to place a ligature upon the common trunk, but for the fact which all experience proves, that the only safe mode of dealing with hæmorrhage from a large artery is to place ligatures upon the vessel itself, immediately above and immediately below the wound from which the blood is issuing, or in some other way to secure the vessel at the injured spot. I have seen cases where it has been impossible to get at the wounded vessel; and one case I remember, where the operating surgeon thought proper to place a ligature upon the vessel in its continuity, in preference to tying it at the punctured spot; but, as might have been expected, all the patients died from subsequent bleedings, brought about by the enlargement of the collateral branches, in the manner which I described to you not long ago, when the three cases of femoral aneurism which have lately been under my care formed the subject of my lecture.

Remember that, whenever it is practicable, your safest course is to secure the wounded vessel at the injured spot; and do not let obstacles which can safely be overcome stand in your way. In the instance I have related it was the facial artery which had been wounded—a vessel neither of the first nor of the second magnitude—and yet, because the life of my patient was being endangered, I did not hesitate to make a large wound, nor even to cut through the jaw, in order to secure it at the wounded spot. If the wounded vessel be of moderate size only, less formidable measures will sometimes suffice—such as were in the first instance adopted in the case of William Hays. And it was right, in my judgment, to try these simpler means before resorting to so severe an operation as that which was ultimately deemed necessary; but, when operative measures have been decided upon, such only as I have described will be at all likely to succeed, and, whenever practicable, should be performed. If the bleeding be from an artery of large size, as, for instance, one of the main vessels of a limb, the sooner the operation is performed the better. The employment, in such a case, of compresses and bandages, of tourniquets, of styptics, and so on, none of which are likely to succeed, can only render matters more desperate, by allowing time for diffusion of blood in the surrounding tissues, and for those subsequent changes which, by obscuring the parts involved, make the inevitable operation more difficult, and which are also attended by a condition of surgical fever little calculated to promote the healing of the damaged tissues.

GYNÆCOLOGICAL NOTES.

By ROBERT BARNES, M.D.,

Obstetric Physician, and Lecturer on Midwifery and Diseases of Women and Children, at St. Thomas's Hospital.

II.—OUGHT CONSUMPTIVES TO MARRY?

It is hard to tell any one, much more a large class, that it is wrong to enter into those social relations which, if wisely contracted and preserved, give the chief charm to life. Indeed, advice upon this matter, although often sought, is often disregarded. Passion and immediate interests submit unwillingly to the cold reasoning of philosophy. Still the problem—Is it to the advantage of the community, or of the individuals primarily concerned, that those bearing the seeds of tubercular phthisis should marry?—is one which medical science may properly discuss.

My own observation tells strongly on the negative or prohibitory side.

1. I have now seen a good many very sad instances where young men and women in whom consumption was either latent, stationary, or slowly progressing, have sunk rapidly after being "engaged", or after being married. The chance of recovery, or even of not getting worse, of a tuberculous sufferer, depends upon observing the strictest hygienic rules; and of these rules a main one is the preservation of mental and emotional calm.

2. I have seen the effect of pregnancy and labour upon many consumptive women. I have no hesitation in saying that there never was a greater fallacy than that which affirms that pregnancy is antagonistic to phthisis. In my experience, labour commonly precipitates the fatal issue of the disease. Some perish during pregnancy; a large number sink rapidly after labour. This last trial breaks down the remaining forces of the system.

3. Consumptive people seem at least as apt in procreation as others. The children whom they bring into the world undoubtedly inherit the tubercular diathesis. How many of these perish quickly of convulsions, or, a little later, of abdominal or pulmonary disease! How few grow up to robust adolescence! And how large a proportion of those who survive to maturity repeat the sad history of their parents, scattering mental and physical distress around them!

All this is too familiar to medical men. Seeing these things on a

large scale, and looking beyond the mere individual aspect of the question, we cannot help noting the disastrous effects of the union of consumptive people upon the commonwealth. Physical degeneracy is stamped upon a large section of the community.

That physical diathesis which, in the easy and well educated, often develops a romantic sentimentalism, distorting the judgment of self and of relations to others, produces, in the needy and badly trained, those forms of mental degradation of which our workhouses, prisons, and asylums give so many terrible illustrations. I entirely concur in the opinions expressed upon this subject by Virchow.

It is clearly our duty to discourage marriage amongst consumptives. Public and private interests in relation to this subject are greatly in the hands of the medical profession. Legislation would be impossible. It is, therefore, superfluous to discuss the policy of legislating. In this free country, the sound legal maxim, "*Sic utere tuo, ut alienum non lædas*," meets with scant respect. It is difficult to forbid obstinate people from spreading small-pox; and the right of inoculating syphilis is so hotly maintained by a large section of the public, that the Contagious Diseases Act even is in jeopardy. But a healthy public opinion may do great good; and this public opinion must be based upon medical experience. Public opinion may, indeed, have little weight upon certain consumptives. Few persons, whilst under the thralldom of the most imperious and selfish of all the passions, will recognise the duty of sacrificing their individual desires for the public good. This form of patriotism has probably never seen many devotees. Families may, however, under the wise guidance of their medical advisers, commonly succeed in protecting their healthy sons and daughters from contracting engagements with tainted aspirants. Firmness in this direction will avert incalculable misery. Of course, this social proscription should not be indiscriminating. An isolated case of consumption breaking out in a family which can otherwise show a clean bill of health, cannot have the same significance as attaches to the multiplied recurrence of the disease in successive generations and different branches of a family. At any rate, in the case of persons actually tuberculous, there ought to be no doubt. In their own interest, as well as in that of those with whom alliance is contemplated, interdiction is dictated.

CASE OF PUERPERAL CONVULSIONS.*

By JOSEPH G. SWAYNE, M.D.,

Physician-Accoucheur to the Bristol General Hospital and Lecturer on Midwifery at the Bristol Medical School.

I have several times, at the meetings of this Branch of our Association, communicated cases in proof of the value of bleeding in puerperal convulsions; but I do not think that I have yet met with an instance so illustrative of the power of this remedy as the following.

On February 13th, 1869, Mr. Willett requested me to see Mrs. J., residing in West Street, Bristol. She was a primipara, aged 32, of rather robust make, who was expecting her confinement in about seven weeks. For a month previously she had been suffering from general anasarca, which had latterly much increased, and for a week before I saw her she had complained of severe headaches. About 10 A.M. on February 13th, she was suddenly attacked with epileptiform convulsions, and these returned about every half-hour until 1 P.M., when I first saw her. She had then had five fits, which had gradually increased in severity. There was almost complete unconsciousness between the fits, and the breathing was slightly stertorous. The pulse was 116. No dilatation of the os uteri or other signs of labour was present. On testing the urine, it was found to be highly albuminous—so much so that it was impossible to estimate the amount of deposit, because the whole of the fluid apparently solidified.

Mr. Willett informed me that in the morning he had purged her freely with calomel and jalap, had applied sinapisms to the nape of the neck and calves of the legs, and had given a diuretic mixture containing acetate and bicarbonate of potass.

As there was no symptom of labour, we both agreed that it would be inexpedient to bring it on; but, seeing the critical nature of the case, I strongly advised that bleeding should be resorted to without delay. Mr. Willett, who had previously some hesitation in performing the operation on account of the feebleness of her pulse, agreed to do so, and accordingly bled her to about sixteen ounces. I saw her with him at half-past five the same evening; she had had no fit since the bleeding, and was becoming slightly conscious—sufficiently so to make us understand that she was suffering pain in the region of the kidneys. We therefore applied a blister to the lumbar region. The convulsions returned about 8 P.M., recurring every quarter-of-an-hour, and increas-

* Read before the Bath and Bristol Branch.

ing in severity until 10 P.M., when Mr. Willett was called to her. He was so well satisfied with the result of the previous bleeding, that he again opened the vein and took away sixteen ounces more blood; she was also kept about four hours under the influence of chloroform. On the next day (Feb. 14) I saw her in consultation with Mr. Willett. She was much better, having had only one fit just after the last bleeding, and none since. She had not quite regained consciousness, but had asked for food, which she had taken with a good appetite. We again examined the urine and found very little albumen, the deposit forming only one-eleventh part of the whole quantity tested. She had been well purged by some calomel and compound jalap-powder, which Mr. Willett had given her, the evacuations being dark and slimy. I did not see her after this; but I heard from Mr. Willett that she went on favourably (but without entirely regaining consciousness) until February 16th (three days after the first attack of convulsions), when labour-pains set in, and she was confined between 10 and 11 P.M. with a still-born child. I should mention that no foetal movements had been felt since the convulsions had set in. From that time she went on well and made a good recovery.

Nothing, I think, could have been more satisfactory than the result of venesection in this case. In most instances, when convulsions come on during labour, it is not so easy to estimate the value of this remedy, because delivery, which is generally considered to be the most important remedy of all, is likewise resorted to. In this instance, however, there was no attempt at delivery; but after the first bleeding the convulsions were much mitigated, and after the last entirely ceased; whilst the amount of albumen in the urine, which before venesection was very large, had, after the last bleeding, been reduced to a minimum.

Since the above case was read, I have seen in the *Medical Times and Gazette* for July 30th a very conclusive case [of a similar kind which occurred in the practice of Dr. Marten Cooke of Trinity Square. The patient, a primipara, was attacked with severe epileptiform convulsions eight hours after delivery, which were immediately relieved by a copious bleeding of fifty-four fluid ounces, and did not return. The fits had continued for two hours previously to the bleeding, and were apparently unaffected by sinapisms and cold to the head.

A still more satisfactory case in point is recorded in the *Lancet* for November 19th, 1870, by Dr. Deeley of New York. The patient, a primipara, was delivered by him during a violent attack of epileptic convulsions. Notwithstanding delivery, the fits recurred, sometimes as often as thrice in an hour, until the next day, when he bled her to twenty ounces. There were no more fits after the bleeding, and the patient recovered. The only medicine that gave relief prior to the bleeding was the hydrate of chloral. The first dose of this gave her two hours' respite from convulsions, but the second only one hour's. The condition of the urine was not tested.

Still more recently (in the *JOURNAL* for Saturday, Dec. 3rd), there is related a case which occurred at the Middlesex Hospital under the care of Dr. Hall Davis, and which is as conclusive as either of the above. The patient, a primipara, having previously been affected with anasarca and albuminuria, was attacked with convulsions two hours after delivery. The fits continued for some hours, notwithstanding the use of purgatives, blisters, cold to the head, and chloroform. The latter mitigated the symptoms, but "each time when its effects passed off, the fit became as violent as before". Thirty-four ounces of blood were then taken from the arm, and there was no return of the fits afterwards. The albumen in the urine rapidly diminished, and the woman made a good recovery.

Dr. Davis observed that this case was "an illustration of puerperal eclampsia occurring in a plethoric primipara, and exemplifying, on the one hand, the failure of anæsthetic treatment, and, on the other, the prompt success of blood-letting in this form of the disease."

NOTES ON CONSUMPTION.

By RICHARD PAYNE COTTON, M.D., F.R.C.P.,
Senior Physician to the Hospital for Consumption, etc., Brompton.

I.—VARIETIES OF CONSUMPTION.

I BELIEVE that I was amongst the first to argue that consumption has many varieties, and that such varieties present marked differences both in their symptoms and progress. Since then, this doctrine has been on the increase; so much so, indeed, that each year brings with it new and totally different views of the entire nature of tuberculous diseases, and we are asked to renounce absolutely all our previous knowledge of the subject. I believe, however, that in this particular we are going a little too fast,

It is becoming too much the custom to form our views of human pathology from experiments, interesting perhaps in themselves, but having, as I conceive, very little connexion either with the origin or progress of disease such as we are called upon to witness and to treat in the human subject. Alas for the poor guinea-pigs! How many of them have been tortured and slain, apparently with no other result than to prove that they are not men, and that men are not guinea-pigs; that the one differs from the other both physiologically and pathologically; and that even Darwinian ingenuity cannot lessen the vast gulf which ever has existed, and ever will exist, between them. The celebrated guinea-pig experiments of Villemin, apparently showing the inoculability of tubercle, and favouring the view of its existence as a zymotic disease, were soon disposed of by the subsequent labours of Drs. Andrew Clark, Burdon Sanderson, and Wilson Fox; and we are left, as to the real origin of tuberculous diseases, much as we were before.

I have always considered that the great variety met with in phthisis is due to original differences in the tubercular deposit—to the *grade* of tubercle, as it may be called; or, going a little further back, to what I have called the *degree of phthisis* under which the deposit is formed. It may be difficult, or perhaps impossible, to demonstrate this conclusively; but it is nevertheless, to my mind, the only view which can account for the almost endless differences we encounter both in the symptoms and progress of consumption. Gerber was, I believe, the first who distinguished tubercle according to its *grades of vitality*. He described tubercular matter as (1) unorganised or almost granular; (2) cytoblast; (3) cell; (4) filamentous—the one being just a little higher than the other in the scale of organisation. It must necessarily follow that tubercular deposit thus variously constituted would present great diversity in its tendency to further degradation or softening; and if, to such a condition, we add the almost endless varieties in the physical and constitutional state of individuals, and when we further consider how each must influence the other, we have, I think, a very reasonable explanation of the varieties of phthisis, and can understand how boundless are the differences which the disease may assume.

It may be practically useful to compare phthisis with certain other blood-diseases. It is, for example, like some eruptive affections, except in the important particular that its "eruption" (tubercle) takes place internally, instead of externally. Both in it and in them, there is a preceding diseased condition of blood; in both, there is an elimination of morbid material; and in both, such elimination sometimes does, and sometimes does not, entirely relieve the system. In both, too, there is often a temporary suspension of the constitutional disease—followed, perhaps, by one or more relapses; the patient in the interval being tolerably or even absolutely free from active symptoms, and presenting no traces of mischief, except in the presence of the eliminated material. Phthisis also may not inaptly be likened to the remitting and intermitting classes of disease, by the same exhibition of the more or less complete but temporary suspension of its constitutional symptoms. Like gout and rheumatism, too, it has both its general and local manifestations, which may be continuous, or may subside, or again and again be renewed with almost endless differences and degrees of severity; in the one case the system being purged of lithic acid, and in the other of tubercle. It appears to me that such a comparison with other disorders may help to explain the almost infinite varieties of chronic phthisis.

The various forms of consumption, therefore, depend, as I believe, not upon any essential differences in the disease itself, but upon differences in the original structure and consequent tendencies of the tubercular deposit, as determined by the severity or *degree* of phthisis under which it has been formed, acting in combination with natural varieties in the constitution and resisting capabilities of different people.

Amongst the forms of consumption regarded as having a distinct origin, the so-called *hæmorrhagic phthisis* may be first considered. This view of the disease is not new, but is founded upon an ancient creed. In the doctrine, however, I must confess myself to be a complete unbeliever, as I have never seen a case which has appeared to me to justify any faith in it. I admit that, were I disposed to seek out such a form of phthisis—were "the wish father to the thought"—I could relate several cases of consumption which might be so explained. In all such instances, however, I have found it easier, and more consistent with our admitted knowledge of disease, to discover a more simple explanation. I do not believe that pulmonary hæmorrhage of *non-tubercular* origin can fairly be admitted amongst the causes of phthisis. I regard any form of hæmorrhage from the lungs associated with phthisis as dependent upon the phthisis, and not the phthisis as dependent upon the hæmorrhage. If an escape of blood into the lung-tissue were one of the causes of tuberculosis, those consumptive cases which are accompanied with hæmoptysis would necessarily be found the most grave;

whereas the very opposite to this is the generally admitted fact. Hæmorrhage to any extent short of causing exhaustion and prostration is, in my experience, and I believe also in the experience of most observers, rather salutary than otherwise, tending to relieve the patient, and to render the disease more chronic, both by removing local congestion and inflammation, and by separating, to a greater or less extent, diseased or tuberculous blood. Nature in such cases appears to do in her own way internally what the physician often does in his way externally by local depletion. I am far, however, from denying that blood escaping into the lungs in large quantity is, from its mere pressure and the obstruction which it occasions, a frequent source of distress to the patient, and of temporary aggravation of disease. I am merely maintaining that it is not an original source of phthisis; and that, when it happens in the progress of consumption, it is not a new focus for the development of tubercle.

[To be continued.]

CASE OF POISONING BY CHLORAL HYDRATE.

By W. J. HUNT, L.R.C.P., and R. W. WATKINS, F.R.C.S.,
Towcester, Northamptonshire.

THIS being the first reported case (so far as we are aware) of poisoning by chloral, we have thought it our duty to place on record the observations which we have made, and all the facts we have been able to ascertain.

A clergyman, aged 51, single, of sanguine temperament, and subject to dyspepsia, commenced taking chloral at night on November 15th, 1870; the dose at first being twenty grains, combined with twenty grains of bromide of potassium. This dose was gradually increased, but to what extent, and how rapidly, is uncertain; and the bromide was omitted. He at first had the prescription (which had been sent to him by a relative) dispensed by a chemist, but afterwards procured from him the chloral alone in ounce-bottles. The chemist, Mr. Tite, thinking that he was taking larger doses than were safe, cautioned him as to the use of it, and showed him an article in the *Pharmaceutical Journal* describing the ill effects of an overdose, loss of power in the lower extremities being the most prominent one. He informed Mr. Tite that on one occasion, after taking three doses in one night, he had felt that effect in the morning, having fallen down twice on getting out of bed. Mr. Tite estimated that on that occasion he had taken seventy-five grains. He subsequently procured a copy of that number of the journal, and in it there happened to be an advertisement of hydrate of chloral from a wholesale house. This, it would seem, induced him to obtain from that firm a box containing sixteen ounce-bottles of hydrate of chloral, half of which he had expressed his intention of sending to his relation.

On Friday, January 27th, he was found by his housekeeper, at half-past 8 A.M., dead in bed, the left arm being placed over the top of the head. When Mr. Hunt saw him, about 9 A.M., the face was perfectly calm and pale, covered with profuse perspiration, the clothes in good order, and no appearance of any struggle or vomiting. The body was still warm, with the exception of the exposed parts of the face and the left arm. The housekeeper had often seen him dissolving the chloral in water, in a half-pint bottle (labelled "Chloral Hydrate, 1870"), from which he was in the habit of taking a wineglassful at bedtime; but she did not know the quantity of chloral dissolved each time. She had seen him take a dose from the bottle the night before his death. On January 17th, he had purchased from Mr. Tite an ounce of chloral; and the supply from London had arrived subsequently to that date. After his death, fifteen of the bottles were found full, and one empty; about two ounces of the solution remaining in the bottle above mentioned, on the table in his bedroom. From this we conclude that, in the ten days between the 17th and 27th of January, he had taken fourteen drachms of chloral—presuming that the solution in the bottle contained an ounce to the half-pint. If, however, it contained half an ounce only, the bottle must have been four times filled; and he had, therefore, taken fifteen drachms in the ten days. He was constantly in the habit of "doctoring himself", and, among other things, frequently took carbonate of soda, as much as eighty grains at one dose—purchasing it from Mr. Tite by the half-pound. His housekeeper was not aware whether he had taken any on the night before his death; and we are, therefore, unable to ascertain whether any decomposition of the chloral had taken place.

EXAMINATION OF THE BODY, fifty-four hours after death.—The body was well nourished and fat. There was no decomposition. The heart was perfectly natural in size and appearance, covered with fat

about the auricles and on the ventricular septum. On the left ventricle anteriorly, there was a white patch in the investing membrane, about the size of a thumb-nail, perfectly smooth. There were no adhesions. The heart, which was carefully examined, was in all other respects perfectly natural. The lungs and pleural cavity were quite healthy. The liver and gall-bladder were also healthy. The stomach was large and distended; its pyloric extremity was of uniformly pink hue, anteriorly and posteriorly; there was increased vascularity about the cardiac extremity and along the lesser curvature, with minute extravasated patches of blood (claret-coloured) under the mucous membrane at the cardiac extremity. No thickening or ulceration of the mucous membrane was found. The pylorus was healthy. The large and small intestines were quite natural. The stomach contained about three-quarters of a pint of thick fluid, about the consistency of gruel, with very small pieces of fat and red muscular fibre partly digested. The kidneys were perfectly healthy, and surrounded by much fat. The bladder contained about half a pint of urine. The cerebral membranes were adherent to a small extent on each side of the superior longitudinal sinus, with some old deposits of fibrine slightly puckered in appearance. The membranes generally were much congested, and contained about one ounce of red serum. The convolutions of the brain were remarkably large and pale. The substance was pale, and very soft and friable. There was no increased vascularity in any part, except the choroid plexus; no effusion in the ventricles, nor extravasation of blood.

ON THE USE OF THE TURKISH BATH IN ALBUMINURIA.*

By EDWIN MORRIS, M.D., F.R.C.S., etc.

ONE of the principal constituents of the human blood is albumen, which circulates in it in a dissolved state, playing an important part in the nutrition and formation of the human frame. It is of the greatest importance in the physiology of the human system. Albumen, in its free and normal condition, never coagulates; but it readily assumes a solidified form on the application of heat, or the adding to it of the mineral acids. There is a singular peculiarity with regard to albumen, that, when once it has been coagulated, it cannot again be brought, by any chemical process, to its original dissolved condition. It is true, acetic acid will in some degree dissolve it, and potash completely so; but the albumen so treated will have lost its principal physical features by which it is easily recognised; viz., the solidifying on the application of heat or on the addition of acids. According to the celebrated chemist Lecanu, the relative quantity of albumen in 1000 parts of blood is about 80. M. Denis, in his *Essai sur l'Application de la Chimie à l'Etude Physiologique du Sang de l'Homme*, states that albumen constitutes the greater part of an entire blood-globule. It is only right that I should add that several eminent physiologists doubt the correctness of this statement. It is, however, sufficient for us to know that it is an essential element in the human blood, and that its escape from the system by the urine is indicative of structural disease, or dependent on temporary congestion of some important viscera, and is generally followed by most disastrous consequences. The term "albuminuria" was proposed by the late Dr. Bright, when he first drew attention to the subject in 1827, and has been generally adopted by pathologists ever since.

It is not my intention to point out to you in this paper under what conditions of the system albuminuria occurs, or from what cause it originates, as many modern writers have thrown so much light upon this interesting subject that the profession generally are well acquainted with it. But I will confine myself to the treatment of that form of it which depends upon a peculiar disorganisation of the kidneys, called Bright's kidney, or sometimes Bright's disease, where the albumen becomes greatly diminished in the system, apparently by the abundant dropsy, and not by the actual loss through the kidneys.

In Bright's kidney, the gland is generally mottled or speckled with uneven projections; and, in the advanced stages, is contracted in bulk and hard. The chief seat of disorganisation is in its outer or cortical portion; the tubular parts of the gland are almost entirely absorbed; in fact, the internal structure of the kidneys becomes broken up, and incapable of performing the normal functions. We must, therefore, take into our consideration two points which specially merit our attention—the albuminous condition of the urine, and the disorganised state of the kidneys.

Albumen is the great agent in nutrition, and is not an excrementitious

* Read before the Midland Branch.

product. Dr. Christison states that, the more the urine is loaded with albumen, the less of this substance there is to be found in the serum of the blood, and the specific gravity of the serum is much lowered. Subsequent experiments have confirmed this statement. We may, therefore, with considerable reason suppose that the urine obtains its albumen at the expense of the serum of the blood. Another change also takes place in the blood, and that is, its red particles or colouring matter rapidly disappear. There is no disease which exhausts the red particles so much, or which so impoverishes it, except hæmorrhage. It is not, therefore, surprising that we should have that waxy or leucophlegmatic aspect which is peculiar to persons suffering from this disorganised condition of kidney.

In this particular renal disease the secreting cells and tubes become broken up, the Malpighian capillaries become thickened, and occasionally oil-globules are seen within them, and, as a natural consequence, serum escapes and becomes mixed with the urine; there is also serous effusion into the cellular tissue and serous cavities, the result of impeded capillary circulation consequent on the retention of urinary excrementitious matters in the blood.

From whatever cause the kidneys may become congested, the result would be, ultimately, albuminous urine; and, if the congestion were of great and prolonged severity, there would be induced change of structure, and the urine would become permanently albuminous and contain casts of the uriniferous tubes, composed of matter and broken up epithelium.

Congestion in the kidney must precede the changes in the cells and the effusion of serum, either in the kidney or externally to it. In those cases where the disease originates in the kidneys, the order of the phenomena is first in the secreting cells, leading to the process of desquamation, which may go on for a time before there is evidence of congestion or the effusion of serum. I believe that this state happens in scarlatina; the difference is only in degree, the process the same. If, under these circumstances, the urine be examined, there will be found evidences of desquamation in the presence of portions of epithelial cells. As the disease advances, the urine will become highly albuminous. We cannot explain why it should be so; but it is a law that, when the secreting cells are found in the urine, some abnormal substance is passing off in it. It is very doubtful if the primary cause of all this be not a deficiency of nervous power and consequent deterioration of the blood, and if the first change do not take place in the organic nerves supplying the kidneys.

However pathologists may differ with regard to the morbid condition of the kidneys, one thing we are agreed upon, that the leading feature of this disease is the voiding of a highly albuminous urine of low specific gravity; it is also occasionally red, or dark-coloured, as well as albuminous. The skin is dry and harsh; the countenance pale; sooner or later dropsy is always met with; there is a considerable anasarca swelling of the legs and feet, and infiltration of the scrotum; a general sensation of lassitude and pain in one and sometimes in both sides of the abdomen; nausea and vomiting; uneasiness or a dull pain in the loins, together with a scanty secretion of albuminous urine, coagulable by heat and nitric acid. In some cases, the secretion of urine will be altogether suspended; comatose symptoms will come on; and a speedy death is the result.

Such is a brief description of that morbid condition of the kidneys known as Bright's disease, together with its leading symptoms, culminating in a general dropsy, of which I am about to treat.

Up to the present time no remedies have been used with special adaptation to the removal of albumen from the urine. It is my design and intention, however, to speak of a mode of proceeding for getting rid of those accumulations of serous fluid which take place in the cellular membrane, inundating at once almost every cavity of the body, and producing such distressing and alarming symptoms in those persons who are the subject of Bright's disease. With regard to diuretics, Dr. Cullen says: "It happens, unluckily, that none of these are of very certain operation; neither is it well known why they sometimes succeed and why they so often fail, nor why one medicine should prove of service when another does not." Purgatives have also been used for the purpose of evacuating the accumulated fluid. Drastic purgatives, certainly, have the power of removing large quantities of watery fluid. The objection to these is the temporary fever and heat which they are liable to cause: and as it is laid down as an indispensable rule that they should be given as frequently as the strength of the patient can possibly bear, almost daily, till the water is removed, it is obvious that, if the complaint be not carried off by these means, it must be aggravated by them, and an increased debility will follow, particularly of the digestive organs.

What remedy or remedies, therefore, shall we use which shall be less objectionable and uncertain in their effects? It is through the medium

of the skin, as an independent organ possessed of great power of elimination, that we must look for the removal of those dropsical accumulations, the result of disorganisation of the kidneys. And of all means none can surpass or even equal the immersion of the body in heated air, or what is generally termed the "Turkish bath". It is to Mr. Urquhart that we are indebted for the introduction of the Turkish bath into England, and to Mr. Erasmus Wilson for forcibly drawing the attention of the profession to the bath as a means of not only promoting a healthy condition of the skin, but of preventing disease, and as an adjuvant in its removal when already established.

It is well known that the human body can support a temperature of 300 and 400 degrees of Fahrenheit in dry air; of course vapour is scalding at 120 degrees and boiling at 212 degrees.

Mr. Wilson says: "Looking at the skin in relation to the other organs of the animal economy, we recognise it as one of the great emunctories or scavengers of the body; and we may fairly place it by the side of those other great emunctory organs—the liver and the kidneys, and probably the lungs.

To my friend Dr. Thudichum is certainly due the credit of suggesting that advantage should be taken of this eliminant function of the skin for the speedy removal of that general anasarca condition of the system which is a concomitant of Bright's disease. To give rest to the kidneys when they are unable to work out their normal functions is a very important matter; and this may readily and safely be done by submitting the body to hot air having a temperature from 130 to 150 degrees Fahrenheit, thus calling upon the skin to perform not only its own office but that of the kidneys as well.

The less we stimulate the kidneys by diuretics, when they are being structurally broken up by disease, the better chance will there be for the reparative process to go on. Acting on this principle, Dr. Thudichum, who was consulted by a patient of mine who was suffering from a severe attack of Bright's disease, and whose cellular tissues were loaded with serum, suggested that he should take two Turkish baths daily at a temperature of 140 degrees Fahrenheit, and afterwards submit to a cold shower-bath. My patient, Mr. C., was an intelligent farmer, about fifty-eight years of age, and very temperate and regular in his habits. The quantity of albumen in his urine was so great that the fluid became nearly solid on the application of heat. He had an intermitting pulse; pain about the loins and heart; his countenance had a peculiar cachectic aspect; and his lower limbs were so swollen as to render it impossible for him to put on his ordinary trousers or boots. Such was his condition when he first saw Dr. Thudichum. He began taking the Turkish bath during his stay in London, and derived the greatest benefit from it. He described the hot air as being very peculiar and distressing, until the skin began to act freely. After a few baths the skin acted with greater rapidity, and the perspiration ran down the arms in large pearly drops even to the finger-ends: the temperature was most delicious, and the sensation most delightful. During this dreamy and felicitous state, his troubles all vanished as if by magic. So convinced was he of the utility of the Turkish bath in his complaint, that on his return home he had one constructed on his premises, and every morning with a surprising regularity went into his bath at 6 A.M., and remained from two to three hours; and this he repeated always twice, and sometimes three times, daily for upwards of four years, always having a bucketful of cold water thrown over him immediately after the bath. His dropsical symptoms soon left him, and he became much better in every respect: he was enabled to go about and attend to his ordinary business with comfort. The urine did not lose its albuminous character, and but little was passed from the bladder—in fact, the kidneys were kept in a state of comparative repose, and were not subjected to the wear and tear of their ordinary duty, but were supplanted by that great emunctory of the body, the skin.

Thus was this man's life prolonged upwards of four years—no small portion of a man's lifetime—by the daily submitting of the nude body to a temperature of from 130 to 140 deg. Fahrenheit, producing a forced and increased action of the skin, by means of which a larger quantity of water containing much effete matter in solution escaped.

My experience in the treatment of Bright's disease is, that no medical agent we employ has so great power of arresting the complaint, or of prolonging life, as the Turkish bath during the progress of this intractable disease of the kidneys.

The only objection raised against its use by the patient is the length of time required for a complete bath, at least two hours being necessary for this process; and when this has to be repeated two or even three times during the day, it becomes a heavy tax upon means, and shortens business hours. This objection may, however, be overcome in some measure by taking the bath early in the morning and the last thing at night.

If it were necessary, I could give the details of many cases similar to

Mr. C., wherein the daily use of the Turkish Bath has been equally as efficacious. This would weary you, and is, however, unnecessary, as my object is to bring before you the fact, obtained from some considerable experience, of the utility of the Turkish bath in diminishing dropsical accumulations—more especially those caused by Bright's disease of the kidney—and with the hope of inducing some of you at least to try so valuable an agent.

SMALL-POX AND SCARLET FEVER DISINFECTANTS.

By CHARLES ROBERTS, Esq., late Surgeon to the North
Yorkshire Prison, etc.

THE subject of disinfectants has got into a sad state of confusion; and, amongst the various substances recommended as such by their numerous advocates, we hardly know on which to lay our hands in our present emergency. Nothing can be more confirmatory of this than the experiments published in the JOURNAL for December 24th by Dr. F. C. Calvert, on the relative antiseptic powers of carbolic acid (in various forms), chloralum, chloride of zinc, chloride of lime, and permanganate of potash. He thinks that, by suspending pieces of meat over these substances, he proves that carbolic acid is the only true antiseptic. The experiments are simply worthless for any purpose whatever; for the various substances are very different in their mode of action, and the circumstances under which they were placed were all in favour of the carbolic acid. Common salt and sugar are powerful antiseptics; but what would be thought of the cook who hung her meat and fruit above them, instead of immersing the article to be preserved in them? Carbolic acid and chlorine were the only volatile substances employed, and their chemical action is totally different. It is quite unnecessary to examine Dr. Calvert's experiments further, and I only refer to them because they are likely to mislead many who are too busy with the practice of their profession to examine their merits. I think, too, that we have already laboured too long under the incubus of carbolic acid, which has, it seems to me, gained its popularity on purely theoretical grounds.

Many of us are so enamoured of the new germ-theory of disease, that we allow it to warp all our thoughts into one channel; and to the true believer carbolic acid is as necessary as the germs themselves.

All the substances mentioned above, and many others, as sulphurous acid, iodine, nitrous oxide, etc., have powerful antiseptic properties, if properly used; but their *modus operandi* differs much. Thus chloride of zinc, chloralum, carbolic acid, salt, tannin, corrosive sublimate, chromic acid, etc., prevent decomposition by excluding septic agents, by chemically combining with the albuminous elements, or by simple mechanical obstruction. These are direct or positive antiseptics. On the other hand, sulphurous acid, chlorine, permanganate of potash, nitrous oxide—and to these I may add heat—destroy septic agents, and prevent them from producing decomposition. These are indirect or negative antiseptics; they are also disinfectants; and it is to some of them that we must look for our remedy against small-pox and scarlet fever infection.

I have intentionally omitted carbolic acid from this latter class, because I think it still remains to be proved that it possesses active disinfecting powers. I saw it used very extensively during the epidemic of cattle-disease, and I used it myself very extensively during the recent epidemic of scarlet fever, without any apparent results. The carefully executed experiments of Mr. Crookes failed to prove that it checked the spread of the cattle-plague; and the recent observations of Trautmann, if they be worth anything, only show that the vapour of carbolic acid suspends, but does not destroy, cell-growth. Even in surgical practice, I believe, the mode of its action is quite misunderstood. Very dilute solutions of carbolic acid coagulate albumen; and the only noteworthy fact in a recent case of poisoning by it, recorded in this JOURNAL, was the firm coagulation of the blood all over the body. I think it will be found that its beneficial effect on wounds is due to this simple chemical action; and that, by coagulating the secretions, it gives the wound more time to heal. The compound of carbolic acid and albumen is very slow to enter into decomposition; and I have no doubt that the use of solutions of chloride of zinc, chloralum, or tannin, would be equally efficacious in the treatment of wounds.

The cheapest, oldest, and most easily applied disinfectants for general use are heat and sulphurous acid; and they are both so well known to the profession, that little need be said about them. Dr. Henry of Manchester showed, some years ago, that heat was the

most complete disinfectant which we possess. So low a temperature as 140 deg. was found to destroy vaccine lymph; and no doubt a temperature of 300 deg. would be amply sufficient for all purposes. Bedding and wearing apparel, exposed to this temperature for a few hours in a drying stove, would be perfectly disinfected; and boiling would suffice for linen and cotton goods. Much anxiety is naturally felt by the public lest small-pox and scarlet fever should be brought home from the laundry—and this is a most fruitful source of contagion; but, if the things were submitted for a couple of hours, in the drying stove, to the degree of heat I have mentioned, there need be no fear of that. I believe that stoves for disinfecting purposes are now made by a large firm in London.

Sulphurous acid is exceedingly inimical to organic life, and is probably equally potent in destroying organic poisons. The great objection to its use has always been its irritating effect on the respiratory organs; but, even in the small quantities in which it can be breathed with tolerable comfort, it must be a powerful disinfectant. To illustrate this, I may mention that sulphur was found to be the most powerful remedy for the vine and hop disease (*oidium Tuckerii*), which committed great ravages here and on the Continent about the years 1855 and 1856. On investigating the action of the sulphur, I found that it was due to the presence of a trace of sulphurous acid, which is always present in common commercial sublimed sulphur; and, when sulphur was still more highly impregnated with the gas, its beneficial action is very much increased. I believe also that the action of sulphur ointment in the cure of scabies is due to the presence of this small quantity of free acid; and its action may be increased by increasing its quantity. In a recent number of the *Pall Mall Gazette* there was a statement that cholera was much less frequent among the workers in the gunpowder factories in India than elsewhere. This is probably due to the presence of sulphur and sulphurous acid. If, then, so small a quantity of the gas suffices to destroy a rank vegetable growth like the *oidium* and the itch-insect, a much larger quantity in the air, though not more than can be comfortably breathed, may fairly be expected to destroy minute organic poisons and germs.

For disinfecting hospitals, prisons, schools, and private houses not occupied, nothing is required beyond burning sulphur with closed windows and doors, as recommended by the health-officers. Charging the room with steam would probably facilitate the disinfection by condensing on and precipitating any floating particles of cuticle or other matter. For local applications, the solutions of the gas in water or in alcohol, as recommended by Mr. John Gamgee, are useful; and for disinfecting water-closets, drains, etc., sulphur highly saturated with the gas—and it takes up a very large quantity—would answer very well; but some of the other disinfectants are probably more convenient for this purpose.

Bolton Row, February 1871.

PATHOLOGICAL MEMORANDA.

GANGRENE OF THE LUNG IN ASYLUM PRACTICE.

SINCE reading the interesting paper by Dr. Crichton Browne in the JOURNAL for the 11th inst., on "A Case of Gangrene of the Lung" occurring at the West Riding Asylum, I have taken the trouble to examine the records of such cases of that disease as have occurred in this asylum since its opening in 1845, and the following is the result.

I find that gangrene of the lung was the cause of death in fourteen cases out of 1,325 deaths from all causes up to the end of the year 1869. Eleven of these were males, and three were females. With the exception of two cases, aged respectively 15 and 40 years, all the cases were above fifty years of age at death. In four cases, both lungs were affected. The form of mental disease was, in four cases, mania; in three, dementia; in three, imbecility; in two, general paralysis; and in two, melancholia. In three cases only is it recorded that there was refusal of food, and only one of the patients was an epileptic. The records of cases in this asylum show that gangrene of any part of the body is by no means of common occurrence; and that, when it does occur, it most frequently affects the lungs. And this is not surprising, when we know how common inflammation and other diseases of the lungs are amongst the insane; and that there is an intimate connexion between injuries and diseases of the brain, especially of the base, and diseases of the lungs, as has been shown by Dr. Brown-Séquard in a recent number of a contemporary journal.

J. WILKIE BURMAN, M.B., Assistant Medical Officer,
Devon County Lunatic Asylum.

Exminster, February 1871.

A CASE OF EMPYEMA TREATED BY TAPPING AND THE DRAINING-TUBE.*

By JAMES BOYD, L.R.C.P.Ed., Newcastle-upon-Tyne.

I WAS called on November 28th, 1868, to see a married woman named Sarah Scott, aged 27, of the strumous diathesis. She resided in the west end of this town. She was suffering from an attack of pleuritis, and had been under the treatment of a herbalist several days previous to my having seen her, who had been administering to her a mixture which, she said, contained Cayenne pepper, and which gave her no relief from the acute pain in the side of which she complained. She was in a highly inflammatory fever; pulse 120, hard, sharp, and concentrated in impulse; the skin was very hot, and the tongue covered with a thick white fur; the cheeks were flushed; countenance expressive of great agony. The pain in the side was most acute, and was greatly exasperated by coughing; the breathing was short, and catching on inspiration; the respiratory murmur was very feeble; friction-sounds were slightly audible. I ordered a large blister to be applied to the affected side, and gave her one grain of opium every three hours. After this the pain subsided; but the cavity of the chest on this side suddenly filled with fluid, and dulness supervened all over. The intercostal spaces were separated and bulged out very much; and the diseased side was perfectly motionless with disappearance of the respiratory murmur, vocal fremitus, and all other sounds. Dyspnoea was profuse. Hectic sweats and purulent expectoration soon brought on very great emaciation and debility. I informed her that there was no alternative left to save her life but to let off the fluid by tapping; but she obstinately refused to have the operation performed until her breathing became so laborious as to threaten immediate suffocation. Her chances of recovery were now so very small indeed that I thought it futile to undertake the operation; but, the patient having earnestly implored me to give her relief, on December 28th (a month later) I performed the following operation, on a level with the fifth rib in the affected side. I passed a large-sized trocar and cannula into the cavity of the chest. After about eight or nine pints of pus had been discharged, a portion, about two feet long, of an India-rubber tube was passed through the cannula for about five inches. The cannula was then withdrawn over the tube, and the latter was left in the chest, having been secured to the chest with straps of adhesive-plaster above and below the wound for the period of six weeks, during which time I injected, every third day, a weak solution of carbolic acid, glycerine, and tepid water. The chest has very much shrunk on the diseased side, but is fairly resonant all over, excepting a circumscribed portion around the orifice about the size of the hand. The orifice is now transformed into a thoracic fistula, and small quantities of most offensive matter keep welling out occasionally, which is very unpleasant to herself and those around her at home. Notwithstanding one year and seven months have passed away since the operation, this drain continues, and keeps her rather weak.

This is a case of some interest: 1. From the large amount of pus collected in the right pleural cavity so suddenly, with its consequent dangerous effects from the intrapleural pressure upon the heart and left lung, almost producing death by suffocation; 2. The operation having been performed without any usual precaution by a syphon-tube, with a stop-cock attached to the trocar, to prevent the ingress of air and the atmospheric pressure which was then brought to bear upon the chest-wall and inner surface of the lung by the sudden vacuum which was produced by the evacuation of so large a quantity of matter without producing fatal syncope; 3. The injection of the carbolic acid, glycerine, and water, with impunity from time to time into the pleural cavity; 4. The necessity of the operation, and my reluctance to undertake it while she was so near her end, and her rescue from a premature grave in the eleventh hour.

CASE OF CANCER IN THE THROAT.

By M. A. WOOD, JUN., F.R.C.S.Eng., Ledbury.

W. H., aged 65, was taken suddenly with loss of voice on July 18th, 1869, and a few days afterwards found that he could not swallow well; the food, when it reached a certain point in the gullet, causing great spasm and a sense of suffocation, and being rejected forthwith. He said that for about two years he had occasionally had some difficulty of swallowing, with hoarseness on the accession of a slight cold.

On July 24th, the spasm had become so intense that he was unable to swallow any solid food. Accordingly, I injected under the skin of the neck a quarter of a grain of acetate of morphia, which quickly relieved the spasm; and he was able to swallow much better, though his voice remained as defective. On examining with the laryngoscope, I found a paralysed state of the right vocal cord, showing that the right recurrent laryngeal nerve was implicated; but there was no other abnormal appearance. I was able to pass an ordinary sized probang down the oesophagus without pain, though I experienced some resistance about opposite the second ring of the trachea. There was no outward swelling distinguishable, nor any sign of aneurism. He was weak and anæmic, and of a sallow complexion. I ordered five grains of iodide of potassium and three grains of citrate of quinine and iron to be taken three times a day. The injections were repeated three or four days in succession, with similar relief.

Aug. 14th. He did not swallow so well, and the sense of suffocation attending the act was most distressing. He lived on milk and strong broths.

Aug. 28th. He was weaker. I could only pass a small probang, and that with difficulty, the obstruction seeming to be on the right side. I ordered cod-liver oil, and compound tincture of iodine to be painted on the neck. He now went to the sea for a few weeks, at the end of which time he consulted Dr. George Johnson, who detected a red swelling over the right arytenoid cartilage, which he recommended should be touched with nitrate of silver. On his return home (October 10th), I also observed the same swelling. He was weaker, and had less power of swallowing, every attempt being followed by a violent spasmodic cough and sense of suffocation.

Oct. 20th. By repeated applications of a solution of nitrate of silver, the swelling over the right arytenoid cartilage had disappeared, and with it much of the spasm, though still his efforts at swallowing were very distressing. His voice was more feeble and husky. He took morphine and chloric ether regularly, and used steam-inhalations, which he found very soothing. A most careful manipulation of the neck could detect no swelling; but he had naturally a full neck.

Nov. 1st. This morning he threw up, while coughing, some purulent matter streaked with blood, which gave him great relief, and he was able to swallow liquids much better.

After this, he became gradually weaker, continuing to spit up a good deal of muco-purulent matter. On November 20th, he died, apparently exhausted.

Post Mortem Examination.—The interior of the larynx was healthy; but the mucous membrane at the back of the trachea opposite the third ring was very much congested, and almost ulcerated through. Lying between this and the oesophagus was a cancerous mass of scirrhous nature, which had begun to degenerate into cheesy matter; and one of the cavities in it had perforated the front wall of the oesophagus, and so discharged its contents. The tumour extended to the right of the oesophagus and trachea; and the right common carotid artery and internal jugular vein lay imbedded in it. The right vagus nerve could only be traced to the upper part of the tumour, where it soon became disorganised. The right pleura was also implicated, and the apex of the right lung was becoming consolidated.

I consider the above case interesting in a physiological and pathological point of view, and therefore am led to publish it.

CLINICAL MEMORANDA.

IS IT POSSIBLE TO DISTINGUISH PAIN ALONG NERVE-TRUNKS?

It is common to speak of neuralgic pains as darting along the course of nerves. Is this correct? Does the patient ever become conscious of the direction of his nerves? Is it indeed possible to feel pain in nerve-trunks, or even to recognise the line of conduction of any sensation from periphery to centre? Without doubt, nerve-pains do sometimes shoot and stab most terribly. The radiating shoots of pain extend much further from their centre of origin than those beginning in common inflammation. Any one who has had toothache must have realised this. But that the pain shoots along definite nerve-fibrils is perhaps uncertain; and, in the lightning-like lunges which occur, it would be very difficult for the patient to be accurate in his description of the course taken.

JONATHAN HUTCHINSON, F.R.C.S., Surgeon to the London Hospital.

* Read in the Medical Section at the Annual Meeting of the British Medical Association in Newcastle-upon-Tyne, August 1870.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 14TH, 1871.

GEORGE JOHNSON, M.D., Vice-President, in the Chair.

THREE CASES OF INJURY TO THE BRAIN, WITH AN APPENDIX OF CASES, BY G. W. CALLENDER, F.R.C.S.

IN this communication, attention was directed—first, to the frequency with which convulsions or rigidity are associated with paralysis of the left side of the body, as compared with that of the right; secondly, to the occurrence of these symptoms in cases of injury or disease of those parts of the right cerebral hemisphere which lie above the corpus striatum. After referring to some observations with reference to diseases of the membranes and around the principal cerebral arteries as associated with the occurrence of convulsions, some cases of left-side paralysis were quoted from the practice of St. Bartholomew's Hospital, three of which were given in detail. These cases, added to others recorded by various observers, gave the following results:—Side paralysis, 109 cases; rigidity or convulsions in 46; right side paralysis, 48; rigidity or convulsions in 7; left side paralysis, 61; rigidity or convulsions in 39. Cases in which parts above the corpora striata were affected: left side, 37 cases; convulsions in 7; right side, 47; convulsions in 39. Cases in which the corpora striata, including the optic thalami, were affected: left side, 11 cases; convulsions in none; right side, 13; convulsions in none. For convenience of reference an appendix was added, giving the cases referred to, arranged in two tables; also an outline map of the brain.

Dr. WILLIAM OGLE asked whether Mr. Callender could give any hypothetical explanation of the tendency to localisation of paralysis on one side more than on the other. There were facts which tended to show that the two sides of the brain had separate functions; and that, for instance, the left side was more concerned in speech than the right. The exceptional cases might be accounted for in connection with left-handedness—a condition which Dr. Ogle had found to be much more common than was generally supposed. He believed that it was connected with some modification of function of the left side of the brain.—Mr. F. CLARKE had seen in the West London Hospital a little boy who had the skull on the right side fractured by the chain of a crane. Two pieces of bone were removed; the brain was wounded to the depth of half an inch at least. Hernia of the brain occurred; but this was afterwards reduced, and the wound closed in. He showed the child at a meeting of the Pathological Society towards the end of 1869; there was then no affection of the muscles or of the special senses. The boy returned to his work; but had since manifested loss of memory and other symptoms of imbecility.—Mr. HUNT referred to a case where the skull was fractured and sixteen pieces of bone were removed. The patient was treated by rest and simple diet, and recovered.—Dr. JOHN WEBSTER referred to a case of fracture of the temporal bone with protrusion and removal of a considerable portion of brain. He saw this man twenty years after the accident in good health.—Mr. CLOVER remarked that the effects of the inhalation of nitrous oxide gas did not support the theory of difference in function of the two hemispheres of the brain.—Mr. CALLENDER said that the question which he was desirous to investigate was the relation between injury of a special part of the brain and the occurrence of convulsions. He had not attempted to build up a theory, because of the imperfect knowledge of the structure of the brain and its relations. Much investigation was required; in proof of which, he said that he had found the convolutions of the foetal brain distinctly marked at the ninth or tenth week, whereas other writers have described them as appearing for the first time about the fourth month.

OBSERVATIONS ON THE PATHOLOGY AND TREATMENT OF MALARIOUS FEVERS, BY ROBERT HALL BAKEWELL, M.D.

IN this paper the author gave the results of his experience of malarious diseases during a lengthened residence in the West Indies. After giving an account of the various opinions entertained by different authorities as to the mode in which the malaria poison enters the system, he stated his opinion that, when once there, it acts, not by producing any change in the blood which renders it unsuitable for the nutrition of the organs, but by influencing specially the sympathetic nerves; and he attempted to explain the phenomena of the ague-fit on this hypothesis. In his treatment of the malarious diseases, the author relied on quinine and arsenic, and stated that the bilious vomiting and purging, which often in the West Indies accompany an attack of marsh-fever, do not, as usually supposed, indicate the administration of calomel.

Mr. HECKSTALL SMITH referred to the manner in which ague is diffused. He noticed the practice which, he had been told, existed among Essex farmers, of planting trees in the neighbourhood of malarious districts so as to intercept the conveyance of the poison. Another fact he had learned from a captain of engineers in the Mauritius. The barracks there being notoriously unhealthy, new ones were built on a hill. The result, however, was that the health of the troops became worse. At last a high wall was built in front of the barracks, between them and the sea; and since then the barracks had been almost absolutely healthy. He believed that vomiting was likely to occur whenever there was great difficulty in establishing reaction; and he thought it useful. The old practitioners in Essex used to give emetics in the early stage of intermittent fever, and large doses of quinine before the expected attack. He had followed this plan of giving quinine, and believed that it was successful in shortening the duration of the disease and economising the remedies.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, FEB. 18, 1871.

R. DRUITT, M.D., President, in the Chair.

THE PRESIDENT read a letter from Dr. E. Ballard, regretting his inability to attend the meeting, and offering a few remarks on the subject of Small-Pox. Dr. Ballard did not think that the Privy Council's new system of vaccination was at all to blame for the present epidemic; but that more encouragement ought to have been given before the outbreak to revaccination. The regulation by which the fee for revaccination was fixed at only two-thirds of that for primary vaccination, led the Guardians to consider revaccination of only secondary importance. Dr. Ballard was not only opposed to restricting the number of vaccinators, but he thought that, especially at the present time, vaccination ought to be carried into the houses of the poor.

The PRESIDENT read a letter from Mr. George Turner, of Peckham, calling attention to the Hospital Marquees manufactured by him, and their many advantages for the purpose of temporary hospitals.

A number of old pamphlets, written about the year 1800, were laid on the table and afforded much amusement. Great apprehensions were held as to the effects of vaccination; one writer went so far as to prophesy that children would be covered all over with red hair like cows, and would roar like bulls.

Dr. DRUITT read some remarks on the signs by which successful Vaccination might be distinguished. After giving the various appearances presented, he summed up by saying that the old comparison, "like a drop of dew on a rose-leaf," described perfectly the appearance which successful vaccination ought to present. Revaccination required more care than primary vaccination, and led to less perfect results; and he considered that the operation should be paid for, because the result was beyond the power of the operator, while the trouble was the same in all cases. It was possible, he thought, that the same condition of things which gave greater efficacy to contagion of small-pox also gave increased susceptibility for successful vaccination. His own experience was borne out by that of others, that revaccination never succeeded so well as it did at the present time. Epidemics would recur from time to time, and the cry of the newspapers that the present prevalence of small-pox proceeded from the neglect of vaccination was groundless. There were numberless causes to superinduce epidemics, and it was wrong to claim for vaccination an absolutely perfect immunity that was unwarranted by experience.—Dr. LETHEBY quoted statistics showing that primary vaccination afforded protection up to about the age of 20. Mr. Stone's experience at Christ's Hospital gave only one case of death during a very long period among persons under 20 who had been vaccinated; but of 617 deaths in Berlin in 1864, 41 per cent. were of persons over 20, of whom 11 per cent. had been well vaccinated. The experience in Vienna gave like results. In view of the present state of the public mind, Dr. Letheby was of opinion that it would be advisable for the Association to draw up a memorial for general adoption, to impress upon the public the necessity for revaccination, and to show that no dangers were to be feared from the operation.—Dr. BLACKMAN had since January vaccinated seven hundred persons, and he never knew revaccination so successful as at the present time. Formerly there were about thirty failures out of one hundred, whereas now there were only about five. He believed that the same fact had attracted the attention of almost every medical man. He had lately been inspecting a school in Spitalfields, in which he found twenty-five per cent. of the children without marks, although many of them had come fortified with certificates to show that they had been vaccinated.—Dr. GIBBON expressed doubts as to the efficacy of revaccination. In regard to the Privy Council's system, its effect in his parish had been the dismissal of several

good vaccinators. He maintained that dry lymph was very effectual, even after having been kept for an unlimited period; and he thought that stational vaccination was a mistake.—Mr. RADCLIFFE said that with careful vaccination from arm to arm he found hardly a single failure. He wished to know at what period the necessity for revaccination arose.—Dr. BLACKMAN said that his instruction from Dr. Seaton was, not to revaccinate under 12; in ordinary times not under 15.—Mr. RADCLIFFE thought that the Association ought to impress upon Government the equal importance of revaccination with primary vaccination as to payment. He doubted whether the extraordinary success of revaccination showed a more than usual liability to small-pox. He believed that all over the country there had been a great amount of very imperfect vaccination before the present outbreak.—The PRESIDENT said that, if he went to perform a vaccination at any nobleman's house at the west end, he would soon be asked "Where's your child?" and the child would be sent downstairs to be examined by the housekeeper. With an ordinary child, and with proper care, failure ought to be out of the question. There ought to be facilities for procuring such children. He did not see why people should object to charge a good fee for what gave them a good deal of trouble.—Dr. HAWKSLEY asked whether there was any evidence that protection by primary vaccination under 20 had grown weaker than it was formerly, and whether any steps had been taken to supply medical men with matter direct from the cow.—The PRESIDENT did not think there was any statistical information as to that. He had seen old people take just as well as young. He knew a public vaccinator who renewed his lymph by means of Dr. Blanc's calves, and found its efficacy considerably strengthened.

Dr. LETHEBY moved, and Dr. GIBBON seconded, the appointment of a Committee to draw up a memorial as proposed by Dr. Letheby. The proposal was carried, the members appointed being Dr. Letheby, Dr. Druitt, Dr. Iliff, Dr. Vinen, Dr. Stevenson, and Mr. Liddle.

Dr. COBBOLD read a paper on the question as to whether the Ova of Parasites were capable of retaining their vitality under the various conditions through which sewage has to pass. Dr. Cobbold gave the results of his experiments in minute detail, leaving it to the audience to draw their own inferences. The facts led to the conclusion that, though the ova of some parasites were destroyed, yet those of the far greater majority retained their vitality under the various conditions to which they were subjected, and developed rapidly when they found a suitable subject.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEB. 7TH, 1871.

J. HILTON, Esq., F.R.S., President, in the Chair.

Mr. BALMANNO SQUIRE presented a case of Pemphigus of the Mouth, a very rare form of the disease. The scrotum was also affected.

Mr. SQUIRE next brought forward the case of a woman nearly sixty years of age who had been the subject of several attacks of Eczema, from the last of which she had been suffering for a year. Cauliflower excrescences had latterly developed themselves on some parts of the surface. No syphilitic history was obtained.

Mr. SQUIRE also presented a case of Herpes affecting the forearm from the elbow downwards. He believed that the case, from the distribution, tended to disprove the statement that herpes zoster followed the course of the nerves.

Mr. HOLMES presented for Dr. Martyn the record of a case of Tumours of the Hands and Feet. A photograph and sketch of the patient were exhibited. The patient was twenty-eight years of age, and four feet in height. At the age of eighteen months, the first phalanges of his fingers began to enlarge. This increased steadily to a great extent; they became globular; the hands required support; the thumbs were slightly affected. One hand weighed ten pounds. The patient died ultimately of gangrene of the right hand. The feet and thumbs were slightly affected. He believed the disease was expanded exostosis. It seemed enchondromatous, but there were no cartilage-cells.

Mr. SPENCER WATSON exhibited a small Ivory Exostosis which he had removed from the outer side of the left eyeball. It had all the microscopic characters of very dense bone. No other similar case had, he believed, been recorded.

Mr. HULKE brought forward two cases of Rodent Ulcer. In them he had found the histological characters differ from those described by Mr. Hutchinson and Mr. Paget as merely the elements of common connective tissue. Mr. Hulke had noticed an inner great mass of fibrillated and corpuscular tissue resembling the cells of the rete mucosum, with a tendency of these cells to become elongated.—Mr. DE MORGAN observed that it was the general impression that rodent ulcer was truly a rodent cancer. It was a deposit in which ulceration took place, which, after complete

excision, would recur not by ulceration alone, but also by deposit. He thought this disease was like one of a number of growths not so local as was supposed, and that it was like recurrent fibroid disease—cancer in one form.

Mr. HULKE also showed a Polypus of the Rectum taken from a young woman, which presented unusual microscopical appearances. There were numerous blood-vessels; externally, a stroma less fibrillated and more squamous towards the outside. There were, he thought, three kinds of polypus—glandular, fibro-nuclear, and fibrous.—Mr. SYDNEY JONES expressed the opinion that polypi of the rectum were more common than supposed, especially amongst children. He believed them to be spontaneously cured. In the same cases he had often found polypus of the nose.—Mr. ARNOTT had seen in a man a polypus of the rectum of the size of an orange, which, in addition to the same characters as that described by Mr. Hulke, presented large branching papillæ.—Mr. HOLMES had exhibited a similar villous tumour which he had frequently removed. He thought that these polypi were not so rare.

Mr. ARNOTT exhibited a Blood Tumour of the Scrotum removed from a Spanish gentleman by Mr. Quain. He thought it at first to be an ordinary hæmatocele inflamed, but the tunica vaginalis and albuginea were intact, so that it appeared to be effusion into the cellular tissue only.—Mr. CURLING had seen it at the College of Surgeons, and thought it encysted hæmatocele of the cord; if so, it was very rare. There was no malignant material.

Reports were read by Mr. PICK on Dr. Payne's case of Cancer of the Thyroid, and Dr. Dickinson's case of Tumour of the Groin.

Dr. CLIFFORD ALLBUTT of Leeds exhibited specimens of Spinal Cord from four cases of Traumatic Tetanus. They all presented the same changes, differing only in degree. The cord was softened in three; there were visible hæmorrhages on the surface in two; the cord was injected in three, and its vessels were plugged. In one, there was universal thrombosis. There was some proliferation of epithelium in the central canal, which in all four cases was stuffed with nuclear growth. There was no definite increase of connective tissue. There was wasting of the cells of the anterior horns, with want of symmetry in the arrangement of the cells. The sheath of the nerve proceeding from the local origin of the disease was filled with pus.—Dr. DICKINSON said that he had found similar changes in many cases which he had examined. Chromic acid, however, which Dr. Allbutt had used, produced an appearance like thrombosis, which rendered the examination complicated.—Dr. MOXON had never seen any evidence of inflammation or of thrombosis; nothing more than a little excess of granular matter and increase of epithelium in the canal. The changes were due to irritation rather than inflammation. No paralysis resulted in cases which recovered, or at the time of the disease. The removal of the cord often produced softening.—Mr. HULKE had observed hæmorrhages and softening.—Dr. DICKINSON had seen undoubted histological changes, but never softening inflammation. The severe cases died; hence no cases of after-paralysis.—Mr. BARWELL remarked that the changes mentioned were much like those described by Dr. Dickinson as found in diabetes.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, FEBRUARY 4TH, 1871.

JAMES STANNUS HUGHES, M.D., President, in the Chair.

Dr. HAYDEN presented the Heart of a patient, the history of whose case was given at length in the JOURNAL of January 28th, p. 91. The viscus was of a globular shape, enlarged, and weighed seventeen and a-half ounces. The right auricle was filled with coagula; it was considerably dilated and slightly hypertrophied. The right ventricle was almost normal. The tricuspid orifice was extremely narrowed, scarcely admitting the insertion into it of the tip of the middle finger. The left auricle was dilated to an extreme degree. The left ventricle was a little dilated, and rather attenuated towards the apex. The mitral opening was much contracted, and on the auricular face of the valve some patches of calcareous matter were observed. The appearances just described satisfactorily explained the cause of two distinct presystolic murmurs which had been heard during life at the apex of the heart; one to the right, of a comparatively soft character, and the other in the situation of the apex-beat, rough and jarring. The former was due to the narrowed tricuspid opening, the latter to the roughened and constricted mitral orifice. The case went to prove the possibility of the existence of an obstructive bruit in the right auriculo-ventricular opening.

Dr. HAWTREY BENSON related the particulars of a case of Hæmorrhagic infarction of the Lungs, which had rapidly terminated in death. The patient at the time of the occurrence of the accident was suffering from an uncomplicated attack of rheumatic fever. The resident pupil

had one evening examined his heart, and taken a note of the pulse, temperature, and rate of respiration, when intense dyspnoea suddenly set in, and was quickly followed by coma and death. The heart was found perfectly healthy, and the valves were quite free from disease. The lungs were much congested, the lower lobe of the right lung more particularly so. The mysterious circumstances under which death had occurred, and the hyperæmic condition of the lungs observed, led to a minute examination of the pulmonary vessels being made. An embolus was discovered at the point of division of the right pulmonary artery. The clot ran some distance into the two branches of this vessel, greatly interfering with the flow of blood, though not actually stopping it. The sudden stasis of the circulation in the lungs which proved fatal was, no doubt, aided by the hyperinotic tendency of the disease from which the patient was at the time suffering.

Dr. T. E. LITTLE exhibited a specimen of Strangulation of the Intestine by a Mesenteric Fold of Peritoneum running from the vermiform appendix to the anterior aspect of the ileum.

Dr. FINNY showed the Kidneys of a lad aged 20, in which the changes observed in Cirrhosis were well-marked. Some months ago the patient had noticed that his feet and eyelids were swelled. Vomiting and pain in the abdomen followed, and there was excessive diuresis. On the 9th of January last, an epileptiform convulsion occurred, after which the pulse fell to 50, while the respirations rose to 34 per minute. The urine on the 8th amounted to 125 ounces, and was neutral and whitish. Its density was 1010, and albumen was present to the amount of one-third. On the 9th, 80 ounces were passed; on the 10th and 11th, only 20 ounces; and on the 12th, four ounces were drawn off by the catheter shortly before the patient died. The kidneys were small and contracted, the left one pear-shaped. The cortical portion had suffered much from disease, but the medullary substance was healthy.

Dr. JAMES LITTLE presented a specimen which illustrated the difficulties encountered in determining the exact relations between the existence of important Organic Changes in the Heart and the occurrence of Cardiac Dropsy. The case was originally one of erythematous lupus of the face. When admitted to hospital, the patient complained of sore-throat. A slight general dulness was noticed over the chest, and the area of hepatic dulness was decidedly enlarged. The patient's state was universally unhealthy, and purpuric spots appeared on the lower limbs. He died with evidences of profound venous stasis. The liver afforded a good example of what is termed the "nutmeg liver." The heart was large. The left ventricle was dilated and slightly hypertrophied. Extreme atheromatous degeneration of the aortic valves had taken place, and this was the starting point of the pulmonary and hepatic congestion, and of the general venous stasis. Yet, with all this, no œdema of any part of the body had been observed.

Dr. LYONS exhibited a specimen of Thrombosis of the left Femoral Vein in a man aged 63. Swelling and pain in the left leg, with tenderness over the situation of the great vessels, led to the diagnosis of the lesion. There was no pitting. As the swelling gradually subsided, the hard cord-like contour of the vein was felt. Vesicles soon formed on the lower and inner aspect of the affected limb, and from one of these seven or eight ounces of a clear non-albuminous fluid escaped. Pleuritis, accompanied by rapid and most extensive effusion, suddenly occurred, and proved fatal.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, JANUARY 20TH, 1871.

ALBERT J. WALSH, Esq., President, in the Chair.

MR. JOHN MORGAN exhibited a specimen of extensive Ulceration of the Larynx, the result of Syphilitic Infection.

Dr. HAWTREY BENSON presented the heart of a patient who had died from the effects of Embolism of the Middle Cerebral Artery, occurring in the course of acute rheumatism. Yellow fibrinous clots, evidently formed before death, extended from the cavities of both ventricles of the heart into the arteries, and exhibited complete and symmetrical casts of the sinuses of Valsalva. The portions of these clots contained in the arteries were connected with those in the ventricles by a very constricted neck, which was plainly formed by the pushing aside of the soft fibroid mass by the closing of the valves.

MR. JOHN MORGAN concluded his reply to the discussion on the Unity or Duality of the Syphilitic Poison.

Dr. H. MINCHIN exhibited the Vertebrae of an Executed Criminal, and explained the causes of the remarkable accident which accompanied that execution; viz., separation of the head from the trunk between the second and third cervical vertebrae, although the former bone was fractured through its transverse processes.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, Medical Appointments and Trials, Hospital and Society Meetings, important Inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, FEBRUARY 25TH, 1871.

OUR LUNACY SYSTEMS.

No. I.

No one can deny that our lunatic asylums have effected a vast amount of good; that, taken as a whole, they are conducted on humane and thoughtful principles; or that our lunacy systems are deserving of high praise, and stand superior to those existing in any other country in the world. We referred last week to the value of the curative results for which they may fairly be credited. It is equally beyond doubt that they are capable of improvement; that abuses have crept in which should be done away with; that dogmas and principles, which were necessary under certain peculiar evil conditions, ought to and might now be modified; and that the mysteries which, from one cause or another, have hung about the treatment of the lunatic for many long years, should be dissipated.

The general subject of the treatment of lunacy is a wide one, and requires to be treated broadly and boldly. Furthermore, depreciatory remarks must be accepted in the same broad spirit in which they are advanced. We have no fear of giving offence, for it consists with our knowledge that the members of the profession who give especial attention to the subject recognise the necessity of improvement, and are directly and indirectly exercising their influence to promote reform.

The lunacy systems of Great Britain were originally conceived when the public mind was undergoing severe moral shock. Hard, stern, cruel facts were suddenly presented, causing the people to recoil from the knowledge that such things could have been in a civilised land. A noble spirit of repentance for past apathy, and an equally noble desire to make reparation for what had been by providing against its recurrence, led to the adoption of measures for the care and cure of the insane on the general principle of their detention within the bounds of asylums specially prepared for them. Human prescience could not have foreseen aught but good in this scheme; through its agency the most helpless of mankind were brought within the pale of humane care and treatment, and the public viewed with complacency the palatial edifices which arose for the reception of the maniac and imbecile. Soon the comfort, advantage, and convenience of lunatic asylums became universally felt; as a consequence, the numbers of their inmates increased; and, as a further consequence, counties and districts were called on to make additions year by year to the original buildings, until at last stupendous piles of masonry were constructed, covering acres of ground, and receiving as inmates, literally, in some instances, thousands, in many others, several hundreds of lunatics.

These vast asylums are vast philanthropic mistakes. They have helped to develop unphilanthropic delusions in the mind of the general public, and have produced a stagnation in the study of so-called mental disease most injurious to the science of medicine. The citizen of the world and the student of medicine from the contemplation of those mentally afflicted have been debarred. The former regards lunacy in general as something so horrible and dangerous that its victims must be pushed, like the leper of old, beyond the gates of the city; the latter has been shut off from the study of an every-day disease by the mystery which has been made to overshadow it.

It is not proposed to enter upon details which are mere matters of history. The exposure by the stout Quaker of York of the malpractices of the County Asylum, the establishment of the Retreat, the action of

Pinel, the Report of the Royal Commission of 1815, the gradual establishment of county asylums, and the universal acceptance of the non-restraint system, are they not written in the chronicles? It would be equally needless to recapitulate here all the conditions for good which have resulted to the lunatic from the reforms in his treatment and general surroundings. A much more arduous and ungracious task is before us—that of showing how and in what degree the efforts made for his amelioration have already resulted in evil, and how the evil, unless checked, must grow and increase, until it will assume proportions such as will nullify the good.

The establishment of asylums was necessary and inevitable; their excessive enlargement was unnecessary and avoidable. As soon as the public found that institutions had been opened for the reception of the insane, the idea developed itself that the fit and proper place for all suffering from mental aberration was within their walls. It mattered not how harmless or innocuous was the form of insanity, how amenable to treatment at home, how mild the delusion, it became an admitted dogma that all and sundry who evinced symptoms of mental obliquity must be shut off from society. Thus society came under delusion as to the real nature of insanity; a special stigma was set upon it, and the mass of the mentally insane became merged in the ideal maniac, who was supposed to roar, and shriek, and rattle his chains.

The immediate and most baneful result of this indiscriminate seclusion of the insane has been the shutting off of the medical profession from the contemplation and study of an every-day disease; consequently, the study of insanity as a morbid condition of the body has not been recognised till very recently, and even yet is not acknowledged as such by the profession at large. A most convincing proof of this statement is to be found in the *Nomenclature of Diseases*, which lately emanated from a committee of the Royal College of Physicians of London. In this work, insanity is dissociated from all other affections which beset humanity; its varieties (?) being comprised under the heading "Disorders of the Intellect", all connection with disease of the body being studiously ignored. Corroborative evidence is not wanting on reference to standard works on practical medicine. How far do any of them enlighten the student on the disease which afflicts *three in every thousand* of the population? Rarely, scantily, or not at all. So-called mental disease is regarded by author and practitioner alike more as a curious metaphysical study than as a pathological entity.

A third proof of the divorce of mental from bodily disease by the highest medical authorities is the fact, that in no single school of medicine in Great Britain does any teacher of practice of physic treat systematically, in his regular course of lectures, of those diseases of which psychological abnormalities are the leading symptoms. There are certain teachers who deliver courses of lectures on insanity; but these are taken at the option of the student, who, as a rule, exercises his right of ignoring them. It is open to question whether such special courses are not in themselves mistakes, their tendency being to inculcate in the mind of the student the theory that insanity ought more or less to be disassociated from the ordinary study of practical medicine. Still further to cap our argument, a lectureship exists in the Royal College of Physicians of Edinburgh, the holder of which is bound to deliver annually a certain number of discourses on mental diseases to the assembled College.

As a *sequitur* on the occlusion of the profession from the observation of this class of diseases, a specialty arose, out-Heroding Herod in specialism. Nor can those individuals who first adopted this line of practice be blamed if they accepted the position offered them. The exercise of their ungracious and unpleasant functions carried with it a sense of power and authority, and was surrounded by a sort of glamour not entirely distasteful. They were shut off from the world much in the same manner as their charges; they had to fulfil many duties but slightly pertinent to the physician, and it was only human nature that they should magnify their office by elaborations of the theory which created it. They impressed on the mind of the public a belief which the public had impressed upon them—that they, and they only, could understand

the treatment of insanity. The gist of their belief was, *that the lunatic must be shut up*. In this one thing consists the *magnum scandalum* of our lunacy systems. The alienistic physician was right under the circumstances, he himself being but a circumstance of circumstances. It was the theory which originated the circumstances that was at fault.

Doubtless, a large proportion of the diseases comprised under the generic term "insanity" require at their outset treatment in hospitals, and certain of them demand permanent seclusion in lunatic asylums, for the preservation of public safety and decency. Still it is open to question whether such complaints as puerperal insanity, senile insanity, and those forms of insanity resultant from an anæmic condition of the body, could not be treated at home or in general hospitals. Equally violent and dangerous diseases are so combatted; for instance, *delirium tremens*, the delirium of fever and paralysis, and the excitement of uræmic poisoning. These are no less mental diseases than the (so-called) diseases of mania, melancholia, or dementia: they are symptoms of abnormal bodily conditions, and are so regarded by the general practitioner. It is only when he meets with cases of disease exhibiting mental aberration—which in his course of hospital practice he has had no opportunity of studying—that he, in consonance with established usage, consigns them to an asylum. Where delirium ends and insanity begins, must be a curious point to determine. A great tribute of praise is due, more to the common sense of the profession than to its special knowledge, that it is enabled to draw the line so accurately as it does.

Before any radical reform can be looked for, the student of medicine must have full opportunities afforded him of studying mental disease in all its phases. Wards for the reception of such cases must be established in general hospitals; and equal prominence must be given to the systematic and clinical teaching of insanity with that of phthisis, cancer, or any other common disease. When we reflect on the months of the *curriculum* thrown away on subjects which might be exhausted in as many weeks, on the time frittered away in the teaching of sciences whose bearing on the treatment of disease is remote if not inappreciable; when we consider that the general practitioner is the arbiter on whose fiat the liberty of the subject is compromised in cases of insanity; that the disease is most dire to the individual, and has most important bearings on social economy—is it too much to say that the utter neglect which its study experiences is a curious anomaly in our system of medical education?

THE LONDON CONJOINT EXAMINING BOARDS.

WE annex the draft scheme of the joint Committees of the Royal Colleges of Physicians and Surgeons, and the Society of Apothecaries, in the form in which it was presented to the College of Physicians at their Comitia held on Monday, and approved. In this form the scheme differs essentially from that of last year, which has already appeared in our pages. This is no longer, as it now appears, a scheme for a minimum qualification for English practitioners, complete, unified, and preliminary in all respects to higher diplomas. It is merely an agreement for union amongst three corporations—of which one is galvanised into undue importance for the occasion—for a joint licence for general practice. This is a matter of some convenience but exceedingly little importance, and can only be regarded as a purely temporary arrangement, in which neither the profession nor the public have much interest. It will not prevent single qualifications from being registered while many other corporations continue to grant them. It is a step forward, but a lame and halting one; and, by giving a factitious importance to the Apothecaries' Society of London, without any corresponding advantage, it is probably more mischievous than useful.

The following is the draft scheme.

1. That one Board of Examiners, in this division of the United Kingdom, be appointed by the Royal College of Physicians of London, the Royal College of Surgeons of England, and the Society of Apothecaries of London, for the examination of candidates who desire to practise Medicine, Surgery, and Midwifery.

2. That candidates who shall have passed the several examinations of the Board be entitled, subject to the bye-laws of each institution, to the Licence of the Royal College of Physicians of London, the Diploma of Member of the Royal College of Surgeons of England, and the Certificate of the Society of Apothecaries of London.

3. That Examiners be appointed as follows; viz.:

In Medicine, by the Royal College of Physicians and the Society of Apothecaries.

In Surgery, by the Royal College of Surgeons.

In Anatomy and Physiology, by the Royal College of Physicians and the Royal College of Surgeons.

In Midwifery, by the Royal College of Physicians, the Royal College of Surgeons, and the Society of Apothecaries.

In Materia Medica, Medical Botany and Pharmacy, Chemistry, and Forensic Medicine, by the Royal College of Physicians and the Society of Apothecaries.

4. That the number of Examiners assigned to each subject be as follows; viz.: Anatomy and Physiology, not less than 8; Chemistry, Materia Medica, Medical Botany and Pharmacy, not less than 8; Medicine, not less than 10; Surgery, not less than 10; Forensic Medicine, not less than 4; Midwifery, not less than 6.

5. That the appointment of the Examiners in each subject be made by each of the three Corporations in the following proportion; viz.: Anatomy and Physiology—the Royal College of Physicians, 3; the Royal College of Surgeons, 5. Chemistry, Materia Medica, Medical Botany and Pharmacy—the Royal College of Physicians, 4; the Society of Apothecaries, 4. Medicine—the Royal College of Physicians, 5; the Society of Apothecaries, 5. Surgery—the Royal College of Surgeons, 10. Forensic Medicine—the Royal College of Physicians, 2; the Society of Apothecaries, 2. Midwifery—the Royal College of Physicians, 2; the Royal College of Surgeons, 2; the Society of Apothecaries, 2.

6. That there be two or more examinations on professional subjects, and that the fees payable for the examinations be thirty guineas, to be paid in two or more payments.

7. That one half of the fees received for the examinations be appropriated to the payment of the Examiners and the expenses of the examinations.

8. That the other half of the fees be divided amongst the three Corporations, upon the principle of giving to each Corporation a sum proportionate to that which each has respectively obtained from the grant of licences on the average of the last five years.

9. That the mode of the division of the second half of the fees be subject to revision at the end of every three years.

THE Duke of Norfolk has been elected President of the Sussex County Hospital, Brighton.

SIR DOMINIC CORRIGAN made his maiden speech in the House of Commons in defence of the Ballot Bill. It was a marked success.

MR. FAIRLIE CLARKE has been appointed Assistant-Surgeon to Charing Cross Hospital.

DR. WILTSHIRE has been elected a Corresponding Fellow of the Obstetrical Society of Edinburgh.

THE rate of mortality in Paris continues excessively high, nearly triple that of ordinary times. There were 4103 deaths last week.

FORTY-TWO designs were sent in for the Cottage Infirmary proposed to be built at Shaftesbury, as a memorial of the late Marquis of Westminster.

FOUR minor scholarships are announced for open competition at Downing College, Cambridge. For two of them, medical subjects will count heavily.

THE fatal cases of small-pox in London, which in the eight weeks ending 11th instant had averaged 144, were 218 last week, showing an increase upon the last return.

THE authorities at Devonport have been called upon to report how soon a wooden hulk could be fitted as a temporary hospital-ship at Queenstown, in the event of an outbreak of any contagious disease at that port.

PARLIAMENTARY honours are, from the nature of medical avocations, so rarely coveted by medical men, that it is remarkable to find two contemporary members of the same hospital staff attaining them. Dr. Vanderbyl and Mr. Mitchell Henry were, we believe, both attached to the staff of the Middlesex Hospital at the same time.

THERE is now a considerably larger contingent of medical members in the House of Commons than at any previous assembly. Mr. Brady, Sir Dominic Corrigan, Mr. Dalrymple, Dr. Brewer, Dr. Lush, and Mr. Mitchell Henry, are all members of the profession who have passed through actual practice. We hope that in the forthcoming measures of sanitary reform they will be found to add materially to the wisdom of the legislature on the points at issue.

WE hope that "Old Eps" will show some interest in the newly started journal of the Epsom Medical College. The boys actually at the school are probably hardly numerous enough to make the enterprise financially secure; but if the new boys find the matter, the old boys may be expected to take an interest in reading it, and in finding money and criticism—to skim the froth and keep the pot boiling.

THE PATHOLOGICAL SOCIETY.

AMONGST the guests at the meeting of the Pathological Society on Tuesday was M. Duchenne de Boulogne, who is at present on a visit to London. There was nothing in the proceedings of Tuesday worthy of special notice.

INTERESTING EVENT.

AT half-past four o'clock on Tuesday last, the female Hippopotamus at the Zoological Gardens, Regent's Park, gave birth to an infant. The superintendent, acting under instructions from Mr. Sclater, has given strict orders that the animals shall not be disturbed under any pretence whatever. It is thought probable that, as happened at Amsterdam, a second baby pachyderm may yet see the light. The mother is extremely watchful, listening to every footfall in the neighbourhood of the house, which is kept strictly locked. The keeper has succeeded in supplying her with food; but even this delicate attention had to be carried out with extreme caution. The interesting little stranger can already move freely on its legs. It will be remembered that the only young Hippopotamus hitherto reared in Europe, perished in the fire at the Crystal Palace, where it had been deposited in view of subsequent transmission to the United States.

FRENCH PRISONERS IN GERMANY.

A CORRESPONDENT, writing from Erfurt a few days since, states that there are now 11,500 French prisoners there. Of these, 10,000 are encamped and 1,500 in barracks. The correspondent (an English gentleman) was not permitted to visit the camp, although armed with numerous letters of introduction; but he was enabled to go over the hospitals, accompanied by a sister of charity. He found altogether 2,000 were under hospital treatment, chiefly from throat- and chest-diseases and rheumatism; there were also 500 prisoners on the convalescent list. The damp condition of the wooden huts in the camps, owing to the leakiness of the roofs, was named as the chief cause of the prevailing sickness.

THE SANITARY CONDITION OF BIDEFORD.

FROM the *Bideford Weekly Journal* we learn that Dr. Thorne Thorne has visited the town of Bideford on behalf of the Privy Council Office, on account of the alarming increase of deaths from preventable diseases which have occurred there. Judging from the remarks made by the local press, it would appear that the sanitary condition of the town is very bad; the water-supply is polluted, and there is an absence of proper sewerage. A strong feeling seems to prevail that it is high time the Local Board should take energetic sanitary action, and that they should give "that attention to Dr. Thorne's suggestions and recommendations which they deserve".

KING'S COLLEGE HOSPITAL.

DR. FERRIER has, we understand, been appointed Assistant-Demonstrator of Practical Physiology at King's College. The authorities at King's College are to be congratulated on having secured Dr. Ferrier's services.

LARGE INFLUX OF INVALIDS AT NETLEY.

NEARLY eight hundred invalided soldiers from India arrived at the Netley Hospital on the 16th instant. They came by two special trains from Portsmouth, having disembarked there from one of the Indian relief troop-ships, the *Serapis*, which had conveyed them from Alexandria. So vast an influx of patients on one and the same day, in addition to those already in the building, would try severely the resources of several of our large metropolitan hospitals taken together; but of course the requisite organisation exists at Netley to meet the wants of such an occasion. The liability to have suddenly so large a number of admissions must necessarily modify the arrangements of such an establishment, as compared with other hospitals in which the admissions are few at a time, though at more frequent intervals.

SMALL-POX THREE YEARS IN A VILLAGE.

A POOR-LAW surgeon writes as follows:—Small-pox has been prevalent in my village more or less for three or four years. I have now seven cases—two severe and five modified. The guardians appointed the registrars in September last as public prosecutors, but they do not prosecute for non-vaccination. I find great difficulty in getting the children to the station for vaccination. The guardians pay only the minimum fee allowed by the Vaccination Act, and this is not sufficiently remunerative, considering the difficulties to be overcome in order even to vaccinate those who do not make a determined opposition to it. The consolidation of the offices of Registrar, Vaccinator, and Poor-law Officer, would secure efficient vaccination to the district, more especially if the officer were fairly paid and supported by the guardians and the Poor-law Board.—The facts which we here record, that in a village small-pox has been allowed to be prevalent for the past three years, that the medical man is badly paid for the vaccination, and that recalcitrants are not prosecuted typify the worst faults of the Vaccination Act, deserve the attention of the Privy Council and Poor-law Board.

SMALL-POX.

THE annual rates of mortality last week in the 17 English cities and towns, stated in the order of their topographical arrangement, were as follow:—London, 26 per 1,000; Portsmouth, 22; Norwich, 19; Bristol, 28; Wolverhampton, 27; Birmingham, 24; Leicester, 24; Nottingham, 25; Liverpool, 43; Manchester, 28; Salford, 30; Bradford, 28; Leeds, 24; Sheffield, 25; Hull, 19; Sunderland, 21; and Newcastle-upon-Tyne, 26. The deaths from small-pox in the 17 towns, which had been 214, 291, and 303 in the three preceding weeks, further increased to 327 last week. It is satisfactory to find that the epidemic still practically does not extend beyond London and Liverpool; as of the 327 deaths last week 218 occurred in London, 105 in Liverpool, and only 4 in the 15 other towns, of which 1 each was returned in Portsmouth, Bristol, Manchester, and Sheffield. The annual death-rate from small-pox last week was equal to 3.5 per 1,000 in London, while it was 10.5 in Liverpool. Of the fatal cases in London, 56 per cent. were returned as "unvaccinated," while the proportion in Liverpool was 50 per cent.

CAUTION TO VACCINATORS.

THE St. Saviour's Guardians are engaged in an outrageously shabby action, in which they are endeavouring to avoid payment of £15 : 18 : 6, vaccination fees due to Mr. Ebsworth on account of duties which he performed for them as vaccinator during a term of twelve months, ending July 1870. It was shown that the Registrar had sent the vaccination requisitions to Mr. Ebsworth up to July 1870, and that he had done the work. The payment is resisted on technical grounds connected with the recent changes of contract. The judge has reserved his decision.

THE PRIVY COUNCIL.

WE understand that Dr. Thorne Thorne, who has been very successfully engaged for several years as an occasional inspector under the Privy Council, and who more especially led to the exposure of the causes of the Terling epidemic, has been appointed to a permanent position under the Privy Council.

THE ELECTION FOR GALWAY.

THE election of Mr. Mitchell Henry for Galway county is a subject of professional congratulation. Mr. Henry was for many years an energetic practising member of our profession; and, as one of the surgeons and lecturers at the Middlesex Hospital, as well as in the capacity of honorary secretary of the Pathological Society, he showed not only the considerable skill and knowledge needed for these positions, but a great deal of independence of character and efficiency in the management of public business.

LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS.

The Lectures of the present year (to which we made reference at the commencement of the year) will be delivered at the College, Pall Mall East, at five o'clock on each of the following Wednesdays and Fridays. Gulstonian Lectures—Dr. Gee, March 3, 8, 10, "On the Heat of the Body"; Croonian Lectures—Dr. Parkes, March 15, 17, 22, "On some points connected with the Elimination of Nitrogen from the Human Body"; Lumleian Lectures—Dr. West, March 24, 29, 31, "On some Disorders of the Nervous System in Childhood".

ST. THOMAS'S HOSPITAL.

WE referred recently to a rumour that Dr. Liebreich, the distinguished ophthalmologist of Paris, was likely to be appointed ophthalmic surgeon and lecturer at St. Thomas's Hospital. This statement is, we believe, likely to be realised. The reputation of Dr. Liebreich is more than European, and his services to ophthalmoscopic science and practice are such that he may fairly claim to be considered as almost the founder of our present school of ophthalmoscopy. The services which he has rendered to science are cosmopolitan, and we feel assured that if, under the existing state of affairs in Paris, Dr. Liebreich elects to take up his residence in London, his services, reputation, and personal character, will secure for him that welcome which the English profession have always been wont to extend to distinguished men of science of every nation, and which well becomes the members of a liberal profession in a country proud of its freedom and hospitality.

SCIENCE TEACHING.

A STATUTE was promulgated on Tuesday in Convocation at Oxford enlarging the powers of the delegates of "unattached students", whom it is proposed to allow to admit students after examining them in one of the two subjects already permitted (*i.e.*, classics and mathematics), "together with some other subject recognised in the schools of the University". Mr. Kitchin, of Christ Church (Censor of Unattached Students) explained the circumstances under which the alteration was proposed. Persons belonging to great Manchester houses wished to study physical science at Oxford for the space of one or two years without aiming at a degree, or seeking to pass any examinations. The proposed change would place "unattached students" on the same footing as the present students at colleges. Mr. Rogers of Magdalen Hall supported the statute, on the ground that the study proposed would tend to help England to hold her place in the rivalry with foreign nations, more especially as regarded mechanical science. Mr. M'Grath of Queen's sympathised with the object of the statute, but thought the method proposed clumsy. Mr. Ogle of Lincoln also objected to the statute. Security ought to be taken that the persons admitted as proposed were *bonâ fide* engaged in study. He proposed to add to the statute the words "under proper safeguards to be approved by Convocation". Mr. Kitchin said that it was the intention of the censors to exact such safeguards. The Principal of St. Mary Hall would have preferred the entire removal of all obstructions on the admission of

"unattached students". He thought the delegates and the censors exercised a supervision quite equal to that of tutors in colleges. The preamble of the statute was then put, and carried unanimously. This statute may prove of value to students desiring a practical scientific education at Oxford, and wishing to study medicine and surgery elsewhere.

OPERATIONS AT KING'S COLLEGE HOSPITAL.

THERE was a large attendance in the theatre at King's College Hospital on Saturday, to witness the deligation of the subclavian by Sir William Fergusson for aneurism of the axillary artery, and of the external iliac by Mr. Henry Smith for aneurism of the femoral artery. The disease appears to have been caused in both cases by local injury. The subject of the former was a sailor, fifty-three years of age, who dated the origin of the mischief to a local injury five months previously. The case of femoral aneurism was that of a woman thirty-two years of age. The disease in this case appears to have been caused by the pressure of a stick used for removing clothes from the boiler, which she was in the habit of allowing to rest on the groin, and on which she was accustomed to lean for support. The operation was performed most successfully in both cases, and the patients give every promise of doing well. We shall publish details of these cases in our Hospital Reports next week.

ENTOZOA AND SEWAGE.

A SECOND paper on this subject was communicated by Dr. Cobbold on Saturday at the meeting of the Association of Officers of Health, after which the discussion on the general question was resumed by Dr. Letheby, Dr. Stallard, Dr. Hawksley, Mr. Hawksley, C.E., Mr. Holland, and others, with great warmth. Dr. Cobbold recorded a number of entirely new experiences in reference to the development of *Bilharzia*, showing that the larvæ of this remarkable entozoon could neither develop itself in urine nor live for any length of time in water tainted with the slightest impurity. Condy's fluid, carmine solution, small quantities of sherry or alcohol, and even decaying vegetable and animal matters, quickly poisoned the larvæ. This experience, however, was altogether exceptional; for the larvæ of ascarides and their allied forms of entozoa appeared to be most vigorous when reared in solutions containing mud, decaying matters, and excremental filth obtained from the higher animals.

LES ENFANTS ASSISTÉS.

ON Monday, Mr. J. Brendon Curgenvin read a paper before the Health Department of the Social Science Association "On the Laws of France relating to Illegitimate Children, Foundlings, and Orphans, and also those relating to the Registration of Births and Deaths". He treated first of illegitimate children, and showed how by the law of France they may be recognised and legitimated by their parents, enabling them to acquire rights of inheritance, etc. Illegitimate children that are not recognised by their parents are treated by the State as foundlings—*sunt filii nullius*. Incestuous or adulterous offspring cannot be recognised, and can only claim alimony from their parents. He gave in detail the decree of Napoleon, dated 19th January, 1811, which is still the foundation of all the measures adopted relating to foundlings; and went on to state the position and treatment of foundlings and orphans in France at the present time. The total number of assisted children (*enfants assistés*) in France averages 80,000; of these there are, foundlings 42,000, deserted children 30,000, poor orphans 8,000. The births of natural children are about 10 per cent. of the total births, and about one-half of them are deserted by their parents. The turning-boxes have, within the last few years, been entirely suppressed, and offices for admission to the *hospices* have been substituted; and particulars as to the birth, the occupation of the mother, and the cause of the abandonment, are required before the child is admitted. After admission, the children are suckled by wet-nurses until arrangements are completed for placing them in the care of foster-nurses in country districts. The nurses are paid according to a descending scale, from fifteen francs a month during the first year, to six francs during the twelfth year of the child's age. The

nurse receives no further payment after that age, the child being considered able thenceforward to earn sufficient for its own maintenance, but he remains under the guardianship of the *hospices* until he is twenty-one years of age. Most efficient provision is made for inspection, the Paris *hospice* alone having two chief inspectors, twenty-five subinspectors, and two hundred and seventy-eight paid medical inspectors, for its twenty-five thousand children. By this careful system of inspection the mortality of these *enfants assistés* has amounted to only about 20 per cent., whilst the mortality of the nurse-children—of whom there were upwards of twenty thousand placed out annually—from Paris amounted to 75 per cent. In the discussion which followed, suggestions were made for the alteration of the bastardy laws, and for the legal recognition of illegitimate children.

ST. BARTHOLOMEW'S HOSPITAL.

WE understand that Dr. Thorne Thorne, in consequence of his appointment in the Privy Council Office, will resign his position of Casualty Physician at St. Bartholomew's Hospital.

ST. GEORGE'S HOSPITAL.

No cases of small-pox have occurred at St. George's Hospital since the practice of vaccinating the patients was commenced. It is nevertheless still carried out. Dr. Jones, the Resident Medical Officer, has collected facts which tend to prove that the recent small-pox epidemic at the hospital was propagated through the medium of the laundry.

METROPOLITAN MEETING.

THE Metropolitan Counties Branch of the Association will hold an Ordinary Meeting on Friday, the 3rd of March, at 8 P.M., at the Charing Cross Hotel; T. Heckstall Smith, Esq., F.R.C.S., of St. Mary Cray, President, in the Chair. A paper will be read by Mr. Fairlie Clarke, M.A., M.B.Oxon., on the Medical Aspects of Pauperism. The subject is one of great and growing interest, and the ensuing discussion will, it is hoped, lead to some practical results. Public men in and out of Parliament interested in the question have been invited to attend.

ADULTERATION OF FOOD AND DRINK.

MR. MUNTZ'S Bill, to amend the law for the prevention of adulteration of food and drink and drugs, enforces a penalty not exceeding £50 on persons wilfully admixing any injurious or poisonous ingredient or material with food, or any ingredient with any drug to adulterate it for sale: a second offence is to be a misdemeanour punishable with six months' hard labour. The penalty on persons selling as pure articles of food or drink or drugs which they know to have been adulterated, is a fine of £20 or less; and for a second offence the same, with publication in newspapers or otherwise of the offender's name, etc. The analyst under the Act is to be paid a fee of 10s. for his analysis; but it is not compulsory to appoint an analyst. There is no public prosecutor, nor is it any one's duty to institute inquiry. The whole Act is in our opinion, therefore, not likely to be much more useful than its predecessors.

SMALL-POX AMONGST PAUPERS IN LONDON.¹

THE following is a return of pauper cases (1,047 in number) of small-pox under treatment by medical officers of districts and workhouses during the week ending Feb. 11, 1871. For it, we are indebted to Dr. Bridges, the Medical Metropolitan Poor-law Inspector. Bethnal Green, 81; Camberwell, 4; Chelsea, 3; Fulham, 7; St. George's, 189; St. George's-in-the-East, 15; St. Giles-in-the-Fields and St. George, Bloomsbury, 6; Greenwich, 0; Hackney, 12; Hampstead, 0; Holborn, 68; Islington, 60; Kensington, 2; Lambeth, 23; Lewisham, 1; City of London, 71; Marylebone, 12; Mile End Old Town, 21; St. Olave's, 58; Paddington, 20; St. Pancras, 39; Poplar, 21; St. Saviour's, 32; Shoreditch, 172; Stepney, 4; Strand, 25; Wandsworth and Clapham, 32; Westminster, 0; Whitechapel, 68; Woolwich, 1. During the week ending Feb. 4, 150 patients had been removed to Homerton and Stockwell.

THE ANTHROPOLOGICAL MUSEUM AT FLORENCE.

PROFESSOR MANTEGAZZA has published a letter, in which he asks Italian medical practitioners to send him specimens of skulls from anatomical museums, old cemeteries, etc., for the purpose of completing the craniological collection in the Anthropological Museum at Florence. This collection, a year ago, scarcely existed but in name; it now contains five hundred specimens, brought together by the energy of Professor Mantegazza and some of his friends. A grant is allowed by the Government, but it is insufficient to meet the requirements of the case.

AN ALLEGED INSULT TO THE PROFESSION IN ITALY.

ACCORDING to the Italian medical journals, one of the provisions of a penal code which is about to be presented to the parliament of the country is, that fines shall be inflicted on physicians and surgeons who refuse to render professional service in cases of emergency. Our contemporary *L'Imparziale* protests against this, and says that, while it is undoubtedly the moral duty of medical men to give their aid in urgent cases, no civil or penal law ought to impose this duty on them as an obligation, or to threaten with punishment those who refuse to perform it; that medical men, not bound by public appointments, neither can nor ought to be compelled to render assistance to every comer; and that to force them to do this would be making slaves of them. We cordially agree with the sentiments of our contemporary, and hope, with him, that the medical profession in Italy, and especially the Italian Medical Association, will protest energetically against the proposed measure, which is unjust and degrading to a liberal profession.

THE METROPOLITAN EPIDEMIC.

IN the past seven weeks of the current quarter, of 1184 deaths from small-pox in London, 837 occurred under 20 years of age, 268 between 20 and 40, 67 between 40 and 60, and only 12 at 60 and upwards; the annual death-rate under 20 years was 4.4 per 1000 of the estimated population at those ages; between 20 and 40 it was 1.9; between 40 and 60 only .9 per 1000; and above those ages the rate was only nominal. In the thirty-one years—1840-70—the deaths from small-pox in London were 25,071, giving a weekly average of 16. During this period the disease may be said to have been epidemic nine times, and in nearly all these instances it appeared in the latter part of the year, and lasted from one to two years. The nine epidemics occurred in 1840-1, 1844-5, 1847-8, 1851-2, 1854-5, 1859-60, 1862-3, 1866-7, and 1870-1. The highest numbers returned in any years were 1804 in 1844, and 2012 in 1863. The most severe visitation, although of comparatively short duration, was that of 1840-1, when the highest weekly number in the thirty-one years occurred; namely, 102 deaths in the last week of 1840. The three years of lowest mortality from small-pox were 1853, 1857, and 1861, when the deaths were only 217, 154, and 215, in each year respectively. It will thus be seen that the present epidemic is more severe than any during the above thirty-one years, the deaths having averaged 52 in the past nine weeks, while, in an equal number of weeks during the previous most severe visitation (1840-1), the weekly average was only 71.

THE BUCKINGHAM NURSES' HOME AND HOSPITAL.

WITH the approval and sanction of the medical men in Buckingham and its neighbourhood, an attempt was commenced, towards the end of 1869, to establish a system of trained and experienced nursing in the town and adjoining villages. The object of the promoters was to watch generally over the comfort of the patients; to induce them to attend to the directions of the medical attendant, and adopt means for ensuring proper ventilation, quietness, order, and cleanliness; and to supply necessary comforts, in the shape of food and clothing, which the sick might be unable to afford. The institution appears from the first Report, now in our hands, to have also performed the functions of a soup-kitchen. The advantages of such an institution in a neighbourhood, if properly superintended and carried out in a broad and catholic spirit, can be known in the full only to medical men; and it is gratify-

ing to learn from the Report that the influence of the movement is being already felt in the neighbourhood. Great discrimination will be required on the part of the officials to prevent it from becoming an object of abuse amongst those able to pay for relief. But the promoters state that they always keep in view the instruction of cottagers to help themselves. It would be well, then, to introduce as much as possible the provident principle, and to make the Home to a certain extent self-supporting, by the payment of a small weekly sum—say a penny or a halfpenny—amongst the parishioners when well, which would entitle them to the benefits of the institution when ill, and thus save their self-respect and independence. The administration of the Home has been carried on at a house which was temporarily given, through the liberality of a parishioner. In the building, a sick-ward has been opened for the admission of urgent cases; but, although it is very desirable that there should be accommodation for such cases and for infectious diseases in the district, the present building is unsuited for the purpose. We trust that the effort now being made to obtain the necessary funds for this object may meet with the support of the whole district.

SCOTLAND.

PROPOSED INFIRMARY AT LANARK.

SIR SYMON M. LOCKHART, Bart., having proposed to erect an Infirmary at Lanark at his own expense, provided a fund can be raised for its permanent endowment, a public meeting has been held, at which about £300 was subscribed, in addition to £180 annual; and a committee was appointed to raise the further necessary funds, prepare a draft constitution, and report to the next meeting. It is proposed to have twenty beds, the cost of which is estimated at £600 *per annum*.

IRELAND.

DR. TRUETT, F.R.C.S., has been sworn in as High Sheriff of Wicklow county.

DR. LESTRANGE of Arklow has been appointed Surgeon to the Wicklow Infirmary, after a sharp contest.

DR. W. P. KELLY, Inspector-General of Prisons, Bombay, has obtained the Fellowship of the Royal College of Surgeons of Ireland by examination.

THE INSPECTORSHIP OF ANATOMY.

DR. D. F. BRADY, for many years Vice-Chairman of the North Dublin Union, has been appointed Inspector of Anatomy for Ireland, *vice* Sir James Murray, resigned.

MEATH HOSPITAL.

It is rumoured that Dr. Hudson has resigned the physiciancy of this great institution. It is much to be regretted that the office of Consulting-Physician does not exist, as then the services of this distinguished clinical teacher, whose lectures on Fever are so well known, could be retained.

ROYAL COLLEGE OF SURGEONS OF IRELAND.

MR. LEDWICH, Senior Surgeon to Mercer's Hospital, and author of the well known and valuable treatise on *Anatomy*, is likely to succeed Mr. Wharton as Vice-President; and the latter gentleman is certain to be unanimously elected President.

SMALL-POX IN DUBLIN.

THE appearance of small-pox in a certain number of imported cases in Dublin has excited great attention. The Poor-law Commissioners have issued an excellent circular to the Guardians, and the Sanitary Committee of the Corporation are taking measures to make known the best means of preventing the extension of small-pox. Mr. Maclean, the Chairman, has asked the advice of Dr. Evory Kennedy, who has

written a very clear and sensible letter on isolation, disinfection, and vaccination, to which extensive publicity has been given, and on which, we hope, the Sanitary Committee will act. Dr. Lyons has delivered a clinical lecture on the subject, which has been widely circulated by the press, and will have a good effect.

SMALL-POX ON SHIP-BOARD.

Two more ships have arrived from Liverpool at Queenstown with small-pox on board. The harbour is under the authority of the Cork Commissioners; but, although these gentlemen receive all shipping dues, they will have nothing to do with ship plagues. The crews have deserted, and are apparently busily employed in spreading small-pox on shore, so far as they may carry the infection with them. The sick men are on board ship, and the Guardians are meeting to consider the case. The Queenstown inhabitants are described as being "greatly annoyed at not receiving any portion of the shipping dues to enable them to provide proper accommodation when epidemics occur on board vessels arriving at Queenstown for the hospital treatment of their crews." We think they have good reason to be annoyed.

THE NEW MEDICAL MEMBER FOR GALWAY.

THE nomination of candidates for the representation of Galway took place on Tuesday; Mr. Alan Pollok, High Sheriff, presiding. Mr. Mitchell Henry was proposed by Mr. Redington Locke, seconded by Mr. John Eyre, and returned without opposition. We are glad to find that a member of the medical profession, Mr. Mitchell Henry, of Kylemon Castle, county Galway, and Stratheden House, London, has been elected to a seat in the Imperial Parliament. The Poor-law medical vote in Galway is very considerable, numbering fifty. Now that a member of our profession, who, though having retired from practice, still takes a lively interest in the welfare of that profession, has been elected for Galway, we would recommend that the Poor-law medical officers of that county should lose no time in placing themselves in communication with him.

REGISTRATION IN IRELAND.

TWO months ago we had occasion to comment on the imperfect character of the Irish Registration Returns, and we expressed a hope that in his next Report the Irish Registrar-General would give some explanation why registration should be so defective in Ireland, where the Act is compulsory, as compared with England, where (so far as births are concerned) it is not. Mr. Donnelly's Fourth Annual Report is now before us, and we regret to find that it is as barren as its predecessors in point of explanatory matter, such as that of which we have previously shown the want. We apprehend that the post of Registrar-General is not one whose duties come within the category of "mechanical", according to the classification of the Civil Service Commissioners; yet we aver that, so far as any intellectual capacity displayed in the document now before us goes, this Report might have been written by the merest copyist in Her Majesty's service. It is simply a bald statement of facts. There is not the slightest attempt made to assist the reader in drawing inferences from them, or in understanding how it is that registration "does not show much improvement compared with previous years". In our former remarks on the Quarterly Returns, we noticed the constant appearance of a stereotyped paragraph relative to the defects exhibited by the statistics; the same thing occurs in the Annual Reports. "I beg here to repeat the observations made in my former Reports" is the introduction to sentences which, having been written for the first Report, have been made to do duty for each subsequent one. We once more protest against this slipshod method of conducting official business, and we trust that some means may be found either of awakening the Irish Registrar-General to a sense of his duty or of relieving him from a post for which he appears to manifest no sufficient aptitude. We wish it to be distinctly understood that we make these remarks upon a public officer with great reluctance and pain; but our duty as public journalists impels us to speak plainly, especially as previous expostulations seem to have been utterly unheeded.

REPORT

ON

THE CHEMICAL EXAMINATION OF SAMPLES OF CHLORAL HYDRATE.

WE have been favoured with several samples of this preparation, representing the manufacture of various firms, and have had them submitted to analysis, with the following results, which we give, together with a statement of the sources whence the samples were obtained.

No. and Source.	Description.	Quantity of chloroform, from 10 grms.	Percentage of chloroform by weight.	Percentage of chloral hydrate in sample.
1. Messrs. Zimmermann & Co.	Opaque crystalline lumps	4.55	68.11	94.33
2. Messrs. Schoeten-rack & Co.	Opaque amorphous lumps	4.65	69.61	96.41
3. Messrs. Howe & Co.	Thin opaque cake	4.60	68.86	95.37
4. T. Morson & Son	Moist looking tubular crystals	4.60	68.86	95.37
5. Messrs. Howe & Co.	Thin opaque cake	4.60	68.86	95.37
6. Messrs. Dunn, Squire, & Co.	Thin opaque cake	4.60	68.86	95.37

These results differ so little from those published on February 4th that it may fairly be inferred that there is no very great variation in the quality of this preparation, so far as the samples analysed represent the commercial supply of it.

Besides the samples enumerated above, we have also received from Messrs. Sellars and Layman some of the solution of chloral hydrate, which they recommend as the most definite form in which to keep the preparation for dispensing purposes. This solution is said to be prepared so that each fluid-drachm contains one drachm by weight of chloral hydrate; and, on examination of the sample furnished to us, we find that this is the case. By the use of such a solution, the disadvantages resulting from the hygroscopic character of the chloral hydrate in the state of amorphous or crystalline cake are obviated. It is probably in a great degree owing to this character that there is such a difference in the results obtained in the analyses of various samples of chloral hydrate; for it will be observed that it is chiefly the samples of cake which give a low percentage of chloroform. On this account, it has been suggested in the *Pharmaceutical Journal* that the best form in which to keep chloral hydrate for dispensing purposes is that of crystal. But there are differences even in the crystallised preparation, as is shown, for instance, by the sample No. 4. Sometimes also it is met with as a kind of crystalline powder; but the kind of crystals referred to by the *Pharmaceutical Journal* are hard, transparent, brilliant-looking rhombic crystals, quite free from any appearance of moisture. This form of chloral hydrate is somewhat more expensive than the cake. We understand, however, that it is exclusively used by several pharmacists for dispensing; and we quite agree in the opinion that it is the preferable solid form of this preparation.

At the same time, we cannot but state our opinion that a carefully prepared solution of chloral hydrate definite in strength, such as that introduced by Messrs. Sellars and Layman, has great advantages for the dispenser; and we are able to add that this opinion is shared by several experienced pharmacists.

We are glad to be able to state that, so far as our inquiry goes, there does not appear to be any ground for the alarming statements which have been made in reference to the quality of chloral hydrate. Still less does there seem to be any reason for believing that the alcoholic compound of chloral is being substituted for the hydrate. But, while expressing this conclusion, we feel it to be none the less incumbent on us to reiterate our advice to the manufacturers of and dealers in chloral hydrate, that they should take especial care to leave no room for doubt as to the quality of this preparation, nor any opportunity for the circulation of unfounded statements in regard to it. From a medical point of view, it is highly important that practitioners should feel confident as to the proper character of this, as well as of all other medicines. Any doubt in this respect may be very inconvenient; and this would be the case much the same, whether the doubt were well founded or not. We trust, therefore, that this point will not be lost sight of, and that one of the first as well as one of the most important contributions of pure

chemistry to our *materia medica* may not be unduly prejudiced by any real or imaginary objections.

In conclusion, we take this opportunity of expressing our disapproval of the practice, which appears to be frequently followed, of stating upon the labels attached to chloral hydrate the dose in which it is to be taken.* In some cases, this is done in such a way as to suggest the idea that it is intended for the guidance of amateurs, and as a facility for self-treatment. Considering the possibility that there is, to say the least, of this medicine being misused, and the number of fatal cases which have lately occurred where overdoses of chloral hydrate are suspected of being the cause of death, this is a point on which it is scarcely possible to lay too much stress.

THE FIRST SANITARY TRAIN FROM BERLIN.†

III.

ON the morning of October 9th, Professor Virchow obtained, from the voluntary aid-society and their intendants, a supply of rather moist and sour bread, fresh meat, and some excellent preserves, especially one consisting of soup with rice and cooked meat. A quantity of ice was also obtained. After some delay, arising from the necessity of obtaining special permission to proceed, the train reached Ars-sur-Moselle. Almost on its arrival, the guns of Fort St. Quentin opened fire. The litters were unhung from the train and sent into the lazareths, quite prepared, so that the wounded might be at once carried to their places in the carriages. All went on well and rapidly until a heavy rain set in, which put an end to the labour for some time; and at last special protection had to be provided for the conveyance of the wounded. While all this was proceeding, an ambulance belonging to the *Johanniter* brought some wounded officers from Fèves, who were at once received into the train. Late in the evening, the train arrived at Novéant.

Next morning, in Novéant, Professor Virchow's train came to a stand in consequence of the way being blocked up with waggons carrying hay; and it was not till the afternoon that a locomotive arrived from Pont-à-Mousson and brought the train to the other end of the station, in front of the barracks. In the meantime, all the wounded who were yet to be taken on were collected at one point. A large number, besides those brought in on the previous day, had arrived from the last combat; and several were brought from Mars la Tour by a Hessian train. It was indeed, says Professor Virchow, moving to see how one after another of the numerous persons present—officers of rank, surgeons of the barrack-ambulances, railway officials, voluntary attendants—all gave their aid. In less than three hours, five carriages were filled without a single mishap. Almost all the patients were severely wounded; among them were cases of wound of the head (one perforating the skull) and of injuries of the shoulder, arm, and hand.

The train, which was originally fitted up for 120 men, started with 136 men, besides fourteen officers' servants and two officers' wives. The staff raised the number to 180 men, which was increased at intervals by various travellers who had in vain waited for the ordinary trains. These were obliged to be content with outside places. The train, which had increased to eighteen carriages, luggage and passenger, reached Berlin seventy-two hours after leaving Novéant, a delay of a night having taken place at Nancy.

Although both the older and the more recent cases brought by the train were of a very severe character, there was no mishap of any importance. One patient alone gave rise to anxiety. He had been shot through the leg, the bones being crushed; the limb was put up in a plaster of Paris bandage. In order to lie more comfortably, he had had two cushions placed behind his back; this shortened the space on which he lay so much that the leg projected from the lower end of the litter. After a violent jolt, arterial hæmorrhage set in, and was only arrested with great difficulty. The man himself was blameable for the accident, which fortunately had no further result. In rapidly travelling over the Thuringian railway, which had been described by former passengers as very unpleasant, Professor Virchow was awakened in the middle of the night with the information that the wounded in the Hanoverian carriage could no longer bear the motion. He found that they were so severely shaken, that the dressings could scarcely be kept on the wounded limbs. He was therefore obliged to order the train to proceed more slowly; this delayed the arrival in Berlin by four hours. On arriving at the next station, Professor Virchow visited all the carriages containing patients, and found the condition quite satisfactory in all those which had been supplied under the direction of the Berlin aid-society; it was only in the Hanoverian carriage,

which had joined the train at Weissenburg, that there was any complaint. The jolting appeared to have arisen from the shortness of its springs and the unequal length of its compartments.

Professor Virchow cannot judge whether similar faulty conditions prevailed in all the older sanitary carriages provided by the military authority. A recent report, however, by Dr. Max Hirsch, in the *Volkszeitung*, contains a very general complaint of the jolting of the litters in the older Hanoverian carriages. On the other hand, Professor Virchow says, the newer carriages of the Lower Silesian and Brandenburg railway, and those collected under the direction of the Berlin society, are excellent. He himself, during the whole journey, slept every night (nine in all, except two which he spent at Pont-à-Mousson) in an open litter, and was not in the least troubled. The wounded expressed the greatest gratitude; and although some of them, who were taken up at Ars, had to lie more than four days uninterruptedly on the same litters, they did not suffer the least inconvenience. Indeed, he was not a little astonished, a few days after his arrival in Berlin, on visiting the barracks there, which are carefully constructed, to hear the wounded unanimously declare that they were not so comfortable there as they had been in the train.

The conditions of many of the patients improved visibly during the journey. Many of the wounded men, who were also suffering from dysentery, decidedly improved. There were two patients from Pont-à-Mousson, whom the surgeons accompanying them urgently wished to be set down at Nancy: one, because he was dying; the other, because he had been attacked with erysipelas of the face. With tears in their eyes, both begged to be taken on; and Professor Virchow could not deny them. He not only brought them to Berlin, but brought them in an essentially improved state.

During the journey, the strength of the India-rubber rings on which the litters were hung was very carefully tested. Not a few of them broke under the tests, especially that of dragging on the edge of the litters. It was thought that, from the elasticity of a ring, there could be only a moderate sinking of the ends of the litters, but still that this might be attended with unpleasant jolting. Nothing of the kind occurred; the rings held admirably. The movement, moderated by the elastic rings, is altogether pleasant; and, although it may be supposed that a kind of seasickness would be produced by the arrangement, resembling closely that caused on board ship, this did not occur in any one case. At some points, especially on the Anhalt railway, the litters were tossed up and down; nevertheless, no one complained, even when special inquiry was made.

Less satisfactory was the result in relation to the kitchen, although this had caused the greatest amount of admiration to the spectators. Not only was it very difficult, during rapid travelling, to keep up a moderate fire, so that it was scarcely possible to keep water boiling; but in many places, from the violent shaking, the water was thrown out of the kettles in spite of their having covers. On one occasion, the jolt was so violent, that all the cooking utensils were thrown off the fire-place and their contents spilled. The passengers would in consequence have been sometimes in evil condition, had not aid been afforded from various quarters. A Saxon provision-train in Novéant supplied butter, salt meat, herrings, and cucumbers; and the voluntary committees at the stations afforded valuable aid. Even within France, the South German towns (Mannheim, Heidelberg, Karlsruhe, etc.) had appointed at various stations weekly committees for making provision for the wounded. At the Rhenish stations, especially Mannheim, Worms, Alsheim, Mayence, and Frankfort, the multiplicity, richness, and excellence of the gifts reached an extent to which the much praised refreshment-stations on the German railways bore a very modest proportion. Some of the committees had contributed many thousand florins. Even beyond Frankfort, especially in Gelnhausen, Fulda, and Halle, Professor Virchow and his fellow-travellers were most hospitably received. Telegraphic messages, sent without their knowledge, preceded them to many places; and on their arrival they generally found everything prepared. Coffee, chocolate, soup, bread, cakes, wine, and fruit, were provided in the richest abundance. The existence of the train-kitchen rendered it possible as a rule to take charge of these gifts, and to distribute them among the passengers. In this way, not only was the delay at the stations shortened, but error in the distribution was prevented.

Professor Virchow fully acknowledges the manner in which the staff of the sanitary commission performed their duties. During the long journey from Berlin, the service required was moderate; for many hours together the passengers were able to fully enjoy the journey, especially when they occupied outside places. In the return journey, on the other hand, the labour was of that arduous kind which can only be demanded in attendance on the sick. Day and night, a watch had to be kept; for the wounded, laid on their litters, could do nothing without assistance. The calls for help of the various patients followed each other without

* We have, for instance, met with the following: "Dose as an anæsthetic, thirty to forty grains."

† Concluded from page 177.

cessation. Many were so helpless, that they were required to be fed. The application of the dressings was very inconvenient. In the lower litters, the dressers were obliged to kneel or squat down in doing this; while, in attending to the patients in the upper tiers, they were sometimes obliged to stand on stools.

When Professor Virchow left Berlin, many considered his staff too large. This was natural; for many of the trains conveying wounded had arrived without any special staff. Besides Dr. Virchow, the trains contained three surgeons (Dr. Louis Mayer of Berlin, Dr. Heiberg of Christiana, and Dr. von Wyss of Zürich); a steward of the materials; five volunteer dressers (two sons of Dr. Körte, a son of Dr. Ruge, and two of Professor Virchow's sons, with students of various years' standing); and six sisters of mercy (grey sisters). There were also nine paid attendants and helpers, two cooks, and two railway officials. A jocular friend found this system so complete, that he expressed his wonder that Professor Virchow had not also provided a wetnurse. The result, however, showed that even this staff was too small.

Although an additional surgeon, Dr. Schlenska, was engaged at Pont-à-Mousson, it was only by the utmost exertion that the staff were enabled to perform regularly their allotted duties. The first evening visit lasted till half-past twelve o'clock. The night-service especially was so difficult, in consequence of the impossibility of leaving more than one carriage to be inspected by one person, that it was only through the special willingness of the staff that it could be carried on through the third night. It would have been impossible to go through a fourth night with this staff. Already in the evening their strength was exhausted. In the morning, however, all returned to the arduous fulfilment of their difficult duties; and Professor Virchow says that he can do no less than thank each individual, who so essentially contributed towards insuring the success of the undertaking.

It was indeed a venturesome act, to attempt to carry out a plan of this kind, which had never before been practically proved on a large scale. Professor Virchow had, after the Berlin Society had accepted his proposals, considered it his duty to himself to conduct the first train, in order to collect the experience necessary for the repetition of the undertaking. A concurrence of many favourable circumstances, especially the aid which was voluntarily supplied in abundance by many persons, made the speedy and safe return of the train possible. None of those who took part in the undertaking can forget the glad reception which the trains met with, when, on the afternoon of Oct. 13, it entered Berlin and stopped before the barracks of the aid-union. The buildings covered with wreaths, the congratulations of the members of the aid-society, both ladies and gentlemen, the active interest shown by the spectators, the anxiety of many visitors who were expecting their relatives and friends, the thankful looks and shaking of the hand on the part of the wounded brought by the train, their joy at having arrived at the end of their long journey and reached their resting-place—all this testified that the labour had been a grateful one. An unusually heavy shower of hail delayed the completion of the labour of unloading the train till late at night.

For the first time, Professor Virchow says, the severely wounded had been brought straight from the battle-field, and, without being taken into another ambulance, had been carried some hundreds of miles and well cared for until they reached home. They performed their long journey on the same litters on which they were laid at Ars and Novéant; lying on the same litters, they were brought to the doors of the barracks, and then carried into these to their beds. Professor Virchow expresses his conviction, that the removal of the severely wounded should be conducted independently, by means of railway trains of not too great an extent, confined to the special object, and richly provided as regards both material and staff: they should be under a single direction (that of a surgeon if possible), but should be at the same time in official connection with the volunteer societies for the care of the wounded and with the military administration. The staff should, when possible, be permanent. The trains thus provided should be placed at spots easily reached by the army-surgeons, so that they may be set in motion at any moment. At the place of loading, tents should be pitched for the patients, and such other arrangements made, as will at least facilitate the early collection of the wounded brought from various or distant localities, and insure the possibility of their being quickly put into the trains.

TESTIMONIALS.—A handsome medical brougham and a well filled purse of sovereigns have been presented to Dr. Patton, of Tandragee, Ireland, on his resuming practice after a severe and prolonged illness.—Dr. John B. Welch, late resident medical officer at the General Hospital, Birmingham, has been presented with a secretaire and pocket-case of instruments, by the resident officers, servants and nurses, on his leaving the hospital to go into practice at Handsworth.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE I.—Friday, February 17th.

IN commencing his lectures for the present session, Professor Flower recalled attention to the object of the course—that of demonstrating and explaining the objects contained in the Museum founded by John Hunter. These objects might be studied in two manners; either on a zoological plan, a group of animals being described throughout in all its organs before another group was considered, as had been done by Professor Huxley; or by taking up some one system of organs and tracing it in all its modifications through the whole animal kingdom or one of its great divisions. This was the physiological method; and it had the advantage of preventing and removing the erroneous ideas which were likely to arise from the study of single animals, and of enabling a distinction to be made between that which was essential in structure and that which was accidental.

The subject of the course would be the Character, Structure, Functions, and Modifications of the Teeth and Allied Organs in the Mammalia. The examination of these organs involved a survey of the entire class Mammalia, and an examination of the affinities of the various groups of that class. Teeth are generally, though not invariably, present in Mammalia, and are modified partly according to type and partly according to function. The hardness of their structure gives special facilities for their study; and the same property, leading to their preservation, gives them great value in palæontology.

The valuable contributions of John Hunter on the teeth afforded a fitting reason for making these organs the objects of detailed treatment; and to one of the eminent predecessors of Mr. Flower in the Chair—Professor Owen, the author of a work on Odontography—much of our knowledge of the teeth was due.

Professor Flower proceeded to speak in a general manner of the functions of teeth.

Teeth are subservient to alimentation, in various ways: *a*, by mechanically dividing solid substances used for food—by cutting, tearing, or crushing; *b*, by obtaining and seizing food (*e.g.*, canine teeth of the lion); *c*, by biting off edibles or other portions of substances and by penetrating hard substances (*e.g.*, teeth of Rodents). Teeth are also in many animals weapons of offence and defence. The formidable tusks of Carnivora afford a well-known example. In non-carnivorous animals, they are as a rule developed more in the males than in the females; and this is evidently not for supporting life, but for some other purpose, which, considering that the males of many animals are very pugnacious, is probably that of fighting. Most deer have horns, or antlers, which are developed in the male only, and are used in fighting. The Musk-deer has no horns; but in the male the canine teeth are remarkably developed, apparently taking the place of horns. Again, the canine teeth of some Monkeys are much more developed in the male than in the female. In the Narwhal, too, the long tusk is developed in the male only; it is rudimentary in the female. This long tusk is probably used for fighting; and, though there is no absolute evidence of this, the Narwhals have been seen crossing these tusks as if in combat. Teeth are also used for removing obstructions (*e.g.*, the rat); and it has been said—though the evidence is not sufficient—that the Walrus uses its large tusks in climbing.

No reason can as yet be assigned for the peculiar conformation of the teeth in some animals. In the Babyroussa, for instance, the upper canine teeth perforate the lips, curl up, and sometimes reach the top of the head, in which their points become shielded.

Teeth are essentially tegumentary or dermal organs. In explaining this, Professor Flower described briefly the structure of the skin and its division into two layers, the true skin and the epidermis, or, as they have been called by Huxley, the *enderon* and the *ecderon*. He described also the formation of papillæ, sometimes rising from the surface of the skin and sometimes sunk in follicles. A tooth is essentially a papilla of mucous membrane, with its base lying in a follicle, and with its outer or ecderic part peculiarly hardened. By the close growing of the bone round the tooth, the connection of the latter with the jaw becomes intimate and important in Mammalia, in which the jaw undergoes modifications for the support of the teeth.

The essential character of a tooth is best illustrated by one of simple form, such as the tusk of an Elephant. This is a mass of conical shape, or rather cylindrical, tapering at one end. On section, it is seen to be hollow, forming a cap on an enlarged papilla lying at the base of a large

follicle enclosed in the bone. The hard outer cap is not diminished in size towards the root, but its walls become thinner. The papilla or pulp consists of a delicate fibrous tissue, very vascular, and abundantly supplied with nerves. Growth takes place at the base by change in the outer part of the pulp, so that the tooth is gradually pushed outwards. The growth continues during the animal's life; but, in the use of the tusk, its end is ground away. The tusk is mainly composed of a nearly uniform substance—ivory or dentine; outside which is a layer of slightly different substance—cement.

Mr. Flower then gave a brief description of the characters of ivory and cement, deriving his information from Waldeyer's article on the Teeth in Stricker's *Manual of Histology* (of which a translation has been published by the New Sydenham Society).

The human tooth differs from the elephant's tusk in that the pulp is narrow and contracted at the base, instead of being conical. In an early stage the pulp is conical; but it soon begins to contract, and the tooth never exceeds a certain size.

Thus there are two distinct classes of teeth; one in which the pulp is conical and growth is continuous; while in the other the pulp-cavity contracts, and may even become obliterated.

A tooth in man consists of a crown, and a root, with a constricted portion between, called the neck. It is formed of dentine lying over the pulp; over this is placed, in the root, a layer of cement, while the crown is covered by enamel. In young teeth, a cuticle covers the enamel, but is shed as soon as the teeth come into use.

SPECIAL CORRESPONDENCE.

NAPLES.

Professor Cantani's Researches on Diabetes Mellitus.

DR. SAMMUT writes to us from Naples.

I hope to send you an acceptable communication in bringing before your notice some learned and accurate observations of Professor Alnaldo Cantani of Naples on the subject of diabetes mellitus, which, whether it be for their practical importance, or for the light which they throw upon the pathogenesis of this terrible disease, are deserving of the greatest publicity. Before speaking of the brilliant results obtained by him in his clinic, it is necessary that I should explain some pathological ideas which Cantani holds with regard to diabetes, passing over, in order to avoid every useless superfluity, the secondary reasons which he believes still more to militate in his favour.

Professor Cantani is firmly convinced that in diabetes it is not a question of an increased production of sugar, but, on the contrary, it is one of deficient combustion, owing to there not having taken place the progressive transformation into lactic acid or fats of the sugar which has been eaten or formed from amylaceous substances. He suspects, therefore, that the diabetic sugar is not true glycose, although it presents the same chemical reactions, but that it is a modification of normal glucose less easy to be oxydised, whence he calls it *paragluose*. From this it results that, while the sugar passes off undecomposed in the urine, the diabetic patient consumes all his own fat; the many albuminates and fats which he eats are not sufficient for the organic combustion, and therefore the albuminates of the tissues also are disproportionately reduced. To confirm this opinion, there is the fact that the quantity of sugar in diabetic patients, provided the disease be not too far advanced, obeys absolutely the modifications of the diet; so that a patient who, with a preponderance of amylaceous food, gives in the urine from 400 to 500 *grammes* of sugar every day, with an exclusively meat diet does not give more than from 30 to 40 in the first twenty-four hours, and within a few days gives none at all. If, then, in the more grave forms of diabetes, the melituria continues notwithstanding the withdrawal of every non-albuminous aliment, that happens probably because not only the amylaceous substances, but also every species of saccharine or glucoid matter may become transformed into diabetic sugar. So the sugar of the muscles, which first appears directly untransformed in the urine, as inosite, in inosuria or inositic diabetes, may undergo the same transformation. He thinks, also, that another source of production of sugar in diabetic patients limited to an exclusively meat diet, rests in the gelatinous or glutinous tissues of the flesh which Boedeker succeeded in transforming into sugar apart from the system, and which then might become subject, if not normally, at least under determinate pathological conditions, to this transformation also in the living system. All these are sufficient to explain clearly the quantity, by no means small, of sugar that appears in the urine of diabetic pa-

tients fed exclusively upon meat, without there being the necessity of recurring to a transformation of the albuminates themselves into diabetic sugar.

Another important fact consists in his observations on the low temperature of diabetic patients, and the generally small number of their respiratory movements. Professor Cantani has demonstrated from many cases that the temperature of diabetic patients—if there do not exist any complication that gives rise to febrile symptoms, such as pulmonary tuberculosis, exacerbated gastric catarrh, etc.—oscillates regularly between 35 and 36 deg. of Celsius (95 to 96.8 deg. Fahr), and sometimes descends below 35 deg., when they suffer from tuberculosis. The temperature of 37 to 37.5 deg. (97.6 to 98.5 Fahr.) which they then manifest at evening, indicates the presence of fever, and has the same significance that a temperature of 38 to 39.5 deg. (99.4 to 102.1) would have in a person not diabetic. Professor Cantani has at present in his hospital a diabetic patient who has a mean temperature of 35½ deg. of Celsius (96 Fahr.), and does not make more than eight or nine respirations in the minute. This case is a most eloquent proof that diabetic patients experience a diminution of organic combustion, which is the reason that the sugar appears unconsumed in the urine. If there are cases of diabetes in which there abound in the urine those extractive substances that indicate of themselves also a diminished organic combustion, there are others in which the urea is increased double and triple, owing to there being substituted for the deficient combustion of the saccharines that of the albuminates.

Diabetic patients grow thin in so extraordinary a manner; first, because they cannot employ the sugar and starch as organic combustible material; secondly, because in them the process of combustion is effected completely at the expense of the albuminates and the fats. The non-combustibility of the diabetic sugar is precisely the reason that the oxygen cannot find the means of fixing itself in the system; and hence the low temperature and the diminished number of the respirations.

These exclusively theoretic views of his led Professor Cantani to administer lactic acid, and to limit his patients to an exclusively meat diet in diabetes. The lactic acid appears to take the place of the sugar as a combustible, by representing in itself that chemical transformation of the saccharine, which, having passed over the condition of glucose, is decomposable by ulterior oxydation into carbonic acid and water. The exclusively meat diet has the object of reducing to a minimum the introduction of saccharines and sugar-producing substances, and of thus leaving to repose that organ whose affection, certainly curable in the beginning, is the cause of that alteration in the saccharines which renders them incombustible. That organ is probably the liver, and not, as the Germans now believe, the pancreas. Of lactic acid, he gives every day from 5 to 10 *grammes*, diluted in from 200 to 300 *grammes* (75 to 150 grains, in from 8 to 10 fluid-ounces) of plain water, and without any corrective.

The exclusively meat diet means rigorously one of plain meat, roast or boiled, into the preparation of which there should not enter the smallest fragment of bread or of flour, nor of any substance whatsoever of the vegetable kingdom, not even sauces of milk or of eggs (which also contain sugar); the only seasoning permitted is salt, oil, and a little vinegar. For drink, water (either plain or with a little of the very purest alcohol) is allowed; coffee, tea, wine, etc., are prohibited. If the patient continue to have sugar in the urine under this treatment, it is probably a case of inosite which is becoming transformed into diabetic sugar. The results of this system of treatment are surprising. Professor Cantani does not pretend that by means of it *all* diabetic patients can be cured; on the contrary, he gives warning that nothing is to be hoped for in cases that are too far advanced, and especially when pulmonary tuberculosis already exists; probably, then, the organ principally affected is irreparably destroyed, incapable of resuming its function and its influence upon the transformation of the saccharines.

But, in somewhat recent cases, the cure is almost certain and most speedy. I have seen in the same Hospital a lieutenant of the army, who, having been diabetic for many months, entered it emaciated, impotent, and excessively weak; with polyuria, thirst, and extraordinary hunger. After twelve days, the last trace of sugar had disappeared from the urine, and this patient within six weeks gained nine pounds in weight—a pound and a half each week! He left the hospital in excellent condition, florid, strong, without thirst or hunger; he continued the treatment at home for two months more, then he resumed a mixed diet; and now more than eight months have elapsed, during which, while eating indiscriminately, he enjoys most excellent health, weighing twenty-one pounds more than when he first entered the Hospital; and he does not now present in the urine the slightest trace of sugar. Another case, equally interesting, was that of a tailor from Naples, who was admitted into the clinic in a desperate state; he left it florid and robust; and now that for more than seven months he has been again

eating promiscuously, he is more fat, rubicund, vigorous, and energetic than he used to be previously to having been attacked with diabetes. Professor Cantani presented, also, to our notice other patients; as, for example, a parish clergyman, also cured in the clinic, and various other persons treated by him privately. Amongst these, a most interesting case is that of a proprietor from Aversa, the Cavaliere Romano, who, after having suffered for about a year, was cured of the melituria in only four days; and who, when he had recommenced eating farinaceous food after a lapse of sixty days, especially French beans, preserved his urine free from every trace of sugar.

That lactic acid is really an important remedy in diabetes, Professor Cantani concludes, from the fact that even in the cases in which the patients are not subjected to a rigorous and exclusively meat diet, the use of the lactic acid, although it does not exercise its influence so far as to prevent the melituria, nevertheless arrests many of the unfavourable consequences of diabetes, improves the nutrition, increases their strength, and evidently prolongs their life. The Professor showed us a young man in the clinic, an *employé* from Melfi, who, from the state of emaciation, wasting, exhaustion, to which he was reduced by polyuria, thirst, hunger, etc., not observing the treatment rigorously, did not recover from the melituria, but with the lactic acid regained all his strength, became once more powerful, florid, and robust, with the subjective feeling of being in perfect health, and with the disappearance of all the truly diabetic phenomena, such as hunger, thirst, polyuria, exhaustion, emaciation, etc., so that he believed himself to be perfectly cured. Two other diabetic patients, already consumptive, treated in the clinic, although the sugar had not completely disappeared from the urine, nevertheless improved in strength, and gained within from three to four months, one of them, one and a half, the other, two and a half *kilogrammes* in weight.

These results are so admirable that they seem to me worthy of being made known in England, in order that the conclusions of the Neapolitan Professor may be tested upon an extensive scale.

ASSOCIATION INTELLIGENCE.

BATH AND BRISTOL BRANCH.

THE next meeting of the session will be held at the York House, Bath, on Thursday evening, March 2nd, at 7 o'clock; CHARLES BLEECK, Esq., President.

R. S. FOWLER, }
E. C. BOARD, } *Honorary Secretaries.*

METROPOLITAN COUNTIES BRANCH.

AN ordinary meeting of this Branch will be held at the Charing Cross Hotel, on Friday, March 3rd, at 8 P.M.; T. HECKSTALL SMITH, Esq., President, in the Chair.

Mr. Fairlie Clarke will read a paper on the Medical Aspects of Pauperism.

A. P. STEWART, M.D. }
ALEXANDER HENRY, M.D. } *Honorary Secretaries.*

London, February 9th, 1871.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT MEDICAL MEETINGS.

THE March meeting of members of the above District will be held on Wednesday, March 8th, at 3.30 P.M., at the Sussex Hotel, Tunbridge Wells: CHARLES TRISTRAM, Esq., in the Chair.

Gentlemen willing to contribute papers, etc., will greatly oblige by letting me know at their earliest convenience.

Dinner will be provided at 5.15 precisely. Charge 5s., exclusive of wine. FREDK. CHAS. MUDD, *Honorary Secretary.*

Albion Villa, Uckfield, February 7th, 1871.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting of the members of the above District will be held at the Pavilion Hotel, Folkestone, on Thursday, March 16th, 1871, at 3 o'clock: Dr. BOWLES, of Folkestone, in the Chair.

Dinner will be provided at 5 o'clock precisely. Charge, 5s., exclusive of wine. All members of the South Eastern Branch are entitled to attend, and to introduce friends.

Gentlemen who wish to make communications to the meeting, are requested to inform me *at once*, in order that a notice thereof may be included in the circular concerning the meeting.

CHARLES PARSONS, M.D., *Honorary Secretary.*

2, St. James's Street, Dover, February 18th, 1871.

CORRESPONDENCE.

THE TESTIMONIAL TO MR. PARTRIDGE.

SIR,—Will you allow me to make your JOURNAL the medium for expressing my thanks to those friends and present pupils who originated and subscribed to the very handsome testimonial which has been presented to me through the Chairman and Treasurer of the Committee? The value of the gift, great in itself, is in my estimation much enhanced by the spontaneous kindness which prompted it. With all those whose names I read in the subscribers' list I have had intimate and pleasant relations, and many of these I count among my dearest friends.

It is difficult to express how much I appreciate this testimony of their regard, but I may at least say that I shall always hold it in grateful remembrance.

I am, etc.,

RICHARD PARTRIDGE.

17, New Street, Spring Gardens, S.W., Feb. 21st, 1871.

FASTING OF NEW-BORN CHILDREN.

SIR,—I wish to put the following question to medical men accustomed to attend lying-in women and their infants.

Is it possible, or probable, that a newly born child would survive during twenty-four hours the total deprivation of all nourishment?

My reason for asking this question has arisen in the following way. I read, in the *Sunday at Home*, a paper entitled "Samaria," giving an account of the manner in which the so-called "Samaritans" of the present day are accustomed to celebrate their Day of Atonement. I pass over the particulars of their religious service; the only observance with which I have to do is the twenty-four hours' fast which accompanies it. The author of the paper states that "the youngest infant is as strictly precluded from being nursed, or from having its lips moistened, as the high priest himself." I do not suppose, by the way, that this functionary is accustomed to the former of these indulgences. Now, that all the newly born infants of a community should pass through such an ordeal as this, struck me as utterly impossible. What the mothers would suffer from the retention of their milk during twenty-four hours I did not inquire, but I wrote to the author of the paper, the Rev. H. B. Tristram, to say how staggered I had been, as a medical man, by this statement about the infants, and I asked on what authority it was made. In a courteous reply Dr. Tristram referred me to a paper by Mr. George Grove, published in *Vacation Tourists*; and there I certainly found the statement just as Dr. Tristram has given it. On applying to Mr. Grove, he informs me that he received the information from a certain Jacob esh Shelaby, the leading man among the Samaritans, at whose house he was staying when he wrote the account in *Vacation Tourists*. Mr. Grove thinks that I "may rely upon the statement being true;" but I cannot do so without further evidence. Had Mr. Grove been able, which of course he was not, to ascertain the facts for himself by actual observation, I need not say that his report would have satisfied me; but he only relates what Jacob esh Shelaby told him. Am I unreasonably incredulous in this matter? I am, etc.

JAMES DIXON.

Lower Seymour Street, Portman Square, Feb. 21st, 1871.

THE SUBCUTANEOUS DIVISION OF THE NECK OF THE THIGH-BONE.

SIR,—My attention has been directed by Mr. William Adams to a letter which he has addressed to you, and which appears in your current number in the following terms. "I think it right to direct your attention to a letter written to the editor of the BRITISH MEDICAL JOURNAL, and which is printed in the JOURNAL of to-day (February 18th), with respect to a claim you have set up in your recently published work on *Deformities* to an operation of a similar character to that performed by myself, and described as subcutaneous division of the neck of the thigh-bone." And in his letter to you, Mr. Adams states: "In the paper read by me at the meeting of the British Medical Association at Newcastle on August 10th, 1870, and published in the BRITISH MEDICAL JOURNAL on December 24th, 1870, I described what I believed to be a perfectly new and original operation, by which, in certain cases of bony ankylosis of the hip-joint with the limb in a deformed position, the neck of the thigh-bone might be divided subcutaneously by means of a small saw, a quarter of an inch in width, and having a cutting edge a quarter of an inch in length, introduced through a punctured wound made with an enlarged tenotomy knife a little above the great trochanter, and carried directly down to the centre of the neck of the bone. By this operation, which I performed at the Great Northern Hospital on December 1st, 1869, cases of extreme deformity may be immediately rectified, and the limb brought into a straight position."

In my work on the *Deformities of the Human Body*, I treat in chapter xi of true ankylosis, and I describe four operations; namely, 1, to remove a wedge of bone; 2, to break through the ankylosis after drilling through the bony formation; 3, to make a false joint; and 4, to divide the bone across subcutaneously, and thus to restore the position of the limb. All these are subcutaneous operations except the first mentioned. This was Barton's operation, which I need not now describe. And, in using the term subcutaneous, as applied to the fourth mentioned operation, I have done so to distinguish it more especially from Barton's.

Subcutaneous osteotomy has been practised and written of by Langenbeck, Gross, Pancoast, Brainard, Bauer, Meyer, Linhardt, and others. Some have practised subcutaneous osteotomy by making the external incision less than half-an-inch in length, while others have preferred a freer external incision. In the case to which I allude, at page 152, I operated in 1865, by making a small external incision, sufficient only to use a very small saw with ease. This operation was not at the hip, but it was done on account of considerable deformity which occasioned lameness. The patient was a member of the House of Commons and a sportsman, and this deformity prevented him from taking that exercise to which he had been accustomed.

But, in 1861, I cut through the neck of the thigh-bone subcutaneously in a case where bony ankylosis had taken place at the hip-joint; and in the following year, I brought the details of the case before the Royal Medical and Chirurgical Society, hoping that they were of sufficient interest and importance to gain a place in the *Transactions* of the Society, as a continuation of another paper on Fibrous Ankylosis which had already been published in the *Transactions*, vol. 40. This paper, however, was not published, and a slender record alone appeared in the Society's *Proceedings*, vol. 4. In this instance, the external incision extended to about two and a half inches in length, the limb being contracted at an angle of 45 degrees, and subsequently a suppurating sinus, which, however, was superficial, was extended into the wound.

In my communication to the Society, this operation was treated of as subcutaneous osteotomy, and as a matter of fact, the bone was never exposed to view. "The wound, I state, healed in about its entire extent by the first intention, and in three weeks it was firmly cicatrised, so that passive motion could be freely employed."

In the former operation to which I have alluded, and where a button-hole aperture alone was made, the wound took much longer time to heal. I have now operated in several cases of a similar kind, and I prefer to make such an incision as shall afford ample room for the protection of the soft structures.

With this case—nine years old—before him, I may be allowed perhaps to express some surprise that Mr. Adams should describe his operation of December 1st, 1869, as "a perfectly new and original operation." I am, etc., B. E. BRODHURST.

20, Grosvenor Street, Feb. 20th, 1871.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

THE Council of the Poor-law Medical Officers' Association of England beg to remind those members who have not already paid their subscriptions for the year 1870-71, that these are now due. Funds are much needed. Members will greatly facilitate the working of the Association by immediately forwarding their subscription (viz., 5s.) to Dr. Welch, 377, Hackney Road, London, E.; or to the Treasurer, Charles Frost, Esq., 47, Ladbroke Square, Notting Hill, W.

LOCAL Honorary Secretaries who may require receipt-books will be furnished with them on application to Mr. J. Wickham Barnes, 126, Gower Street, London, W.C. It is most desirable that all medical officers, on their entrance into the Poor-law medical service, should be invited to join the Association. The Council are fully impressed with the important results which can be obtained through local knowledge and personal influence, and they therefore urge this matter on the attention of Local Honorary Secretaries.

POOR-LAW REFORM.

A POOR-LAW MEDICAL OFFICER writes that for fifteen years he has been medical officer of a district, the population of which is 18,000. He quite agrees with the cardinal points of Poor-law Reform as sketched in the JOURNAL of February 4th. The difficulties which he has experienced he enumerates as follows:—

1. The very inefficient remuneration, amounting only to about 1s. per case. Many of the cases are of weeks' duration, and some even months'; for this remuneration he has not only to attend, but to supply the necessary medicines.

2. The indiscriminate orders given by the relieving-officers for medical attendance on cases, a very great number of which only require medical attendance and not relief; orders for attendance on servants in good families well able to pay; also to women of the town and tramps.

3. Constant inattention to orders for extra relief given by self to the relieving officer, or delay in giving to urgent cases. In fact, the medical officer has no power to enforce his orders without embroiling himself with his Board of Guardians, which would entail his attendance before the Board with considerable loss of time, and, perhaps, more unpleasant consequences.

4. There are many orders given for medical relief where food only is required, in order to save the relieving officer trouble.

5. He quite agrees with the article on "Report of the Poor-law Board, is it true?" Half his pauper patients do not receive further parochial aid; a good third are not really paupers. Farm and domestic servants, mechanics, pensioners, men in clubs, etc., are supplied with medical orders; and he has thus to visit and supply a large number of persons who only require medical attendance gratis.

He expresses a hope that these points, together with other important information, may be brought under the notice of Mr. Brady, M.P., and others who interest themselves in Poor-law matters; and that the time is not far distant when Poor-law medical officers may be placed in a proper and independent position. The one at present held, as relates to the Guardians, is very galling.

MEDICAL RELIEF AND PAYMENT BY SALARY.

MR. JOHN MANLEY of West Bromwich writes:—Just one word on two points—medical relief and payment by salary. I have no hesitation in saying that three-fourths of my pauper patients receive medical relief only. I should have said one-half; but my assistant scouts my notion, and says three-fourths. The Consolidated Order provides that the relieving officer shall visit those to whom medical orders are given (Art. 215); but this is never done, except the medical officer gives an order for general relief. Hence the advice once given to me by an old medical officer—to give an order for general relief (whether required or not), in order that the attention of the relieving officer should be called to apparently improper objects. Payment by salary begets carelessness in giving notes; whereas, when payment is made by case, the attention of the guardians would be called to any increase of expense (by notes) at their weekly meetings. I am striving here to get the large employers of labour to have a sick-society, or at least a medical aid society, in connexion with their works: it dissociates medical aid from pauper aid. Our vaccination here is disgraceful. It has been taken away from the medical officers (Poor-law) as such, and house-vaccination forbidden; hence the result.

CLERICAL DUTIES OF UNION MEDICAL OFFICERS.

DR. H. MEYMOOT, one of the medical officers of the Ludlow Union, writes to Dr. Rogers:—In reference to the circular of Mr. Benson Baker of the 4th inst., I venture to suggest that an effort should be made to reduce the amount of clerical duty now imposed upon union medical officers. I myself find it very irksome, and a great hindrance to more important duties. I also think that the office of registrar should not be added to medical duties; and that the extra fees should be restricted to unusual cases, rather than enlarged—with, of course, an adequate salary for the usual medical and surgical cases. It appears to me that the dispensary system proposed would only be suitable for thickly populated places. I do not think it at all advisable that all midwifery cases should be under the control and responsibility of the medical officer; childbirth for the most part being a natural process, and not a disease. The rest of the programme I highly approve. Would a tabular view of all union medical officers' salaries, with the population and area of district annexed, be useful? This would expose the great irregularities resulting from favouritism and caprice. The comparison of medical and clerical salaries in workhouses might also be made.

MEDICAL ORDERS FOR FOOD IN SICKNESS.

SIR,—I do not agree with the remarks of your correspondents Mr. Brookes and a Vice-President, nor with your comment on Mr. Brookes's letter of the 4th instant. If the relieving officer have good reason to believe that the patient is able to provide the extras ordered by the medical officer, he is bound to refuse to supply them self. Unless he have this discretionary power, it will devolve on the medical officer to investigate the circumstances of the patient, how many children he

has, how many of them at work, and what are the united earnings of the family, etc., whenever he wishes to order any extra support. If, as you say in your comment on Mr. Brookes's case, "the relieving officer seemed to think the patient required medicine and not beef-tea", then no doubt his conduct was most unjustifiable; but there is no proof whatever in Mr. Brookes's letter that this was the case. If the "Vice-President" will refer to Lumley's *Manual*, from which he probably copied the Consolidated Order referring to the matter, he will find in the footnote that Mr. Lumley says, speaking of the relieving officer, "if he be satisfied that the medical officer has been misled, or has not acted *bonâ-fide* in the order, or that the party has sufficient means to provide it for himself, he may refuse to supply it. But, of course, he will do so only after the fullest inquiry, and with the greatest caution."

I have held my present district fourteen years, and I am afraid I am sometimes thought by the guardians at the Board, when they look over my medical relief book, to be rather extravagant in ordering extras, but it is very rarely that my "orders" are refused by the relieving officers, and certainly never because they think the case "requires medicine and not beef-tea." In "cases of urgent necessity", which no doubt do occur sometimes, though rarely, I send for what I want to the nearest shop, and forward the "order" for it afterwards to the relieving officer, who will either sanction it or else refer it to the guardians; if they refuse it, he is ordered to take steps to recover the amount from the family for whom the "extra" was ordered. I should add that, in cases of ordinary sickness, where the income of the family was, from some cause or other, only temporarily lessened, I have known the relieving officers sanction my order for extra relief as a loan, which I believe was not always repaid; but whether this was by order of the guardians or not, I do not know.

I think, sir, we do not always remember that the relieving officer is the servant of the guardians, and not ours, and that he has a very difficult post to fill if he discharges his duty well; and I would venture to add that if, instead of judging him uncharitably, or threatening him with a coroner, we endeavour to get on harmoniously with him, and make all reasonable allowance for his failings, we should probably be able to discharge our duties with greater benefit to our poor patients, and certainly with more comfort to ourselves.—I am, etc., GEORGE TERRY, Medical Officer 5th District, Frome Union.

SIR,—It was with much regret, and not less surprise, that I read the remarks of Mr. Brookes on this subject in the last JOURNAL, and I cannot resist the belief that the guardians and the relieving officer are not the sole aggressors in this controversy. I have been associated with the administration of the Poor-law from its very commencement, both as guardian and medical officer in different unions in this part of the country, and have never known an instance where the notes of medical officers for "medical relief" in sickness were refused; on the contrary, a most ready attention has been paid invariably by the relieving officer, and as cordial a sanction to his acts given by the guardians.

We know that a medical officer's note for relief is always viewed in the light of a "recommendation"—under special and perhaps dangerous conditions—which would claim for it due attention. Again, a medical officer should be careful to keep within his province; he has no power to order "food"; he requires for the sick and convalescent paupers "medical necessities", called "medical relief"; and if he will confine himself to those, viz., meat, wine, or other stimulants in cases of emergency, or, in chronic cases of an exhausting character, malt liquor weekly—I cannot, after my thirty-six years' experience, for a moment believe that any guardians, relieving officer, or Poor-law Board, would raise up any obstacle. They do not in any Union in this neighbourhood, and the Auditor finally passes the expenditure for such without a murmur, first having the notes of the medical officer laid before him. I have very recently become acquainted with several cases of weakly and aged poor, who, in my opinion, were ailing from a too scanty diet, and have given them notes to the effect that they were suffering from "want of sufficient food" (taking care not to order food, as being beyond my province), and an increase of relief has invariably been the result at the next meeting of the Board; and I am pleased to add that, in consequence of a representation to the Board that "the ordinary stereotyped relief to the aged was not so valuable now as it was some fifteen or twenty years ago", very many families have had an increase made to their weekly allowance. I fear there must be some personal animus, on one or both sides, in Mr. Brookes's case, and would suggest to him, "Ne sutor ultra crepidam", and try again. Leave the "food" to the proper officer—stick to the "medical relief"—for, in illness amongst the poor, we stand in need of all the *juvantia*, and must look for them at the hands of the guardians.

Frome, February 21st, 1871.

I am, etc.,

EDWIN BUSH.

VACANCIES.

- ASTON UNION, Warwickshire—Medical Officer and Public Vaccinator for the Sutton Coldfield District (£42 per annum, and extra fees): applications to John Lumby, Clerk to Guardians, 89, New John Street, Birmingham, 28th; election, 28th; duties, March 7th.
- BELFORD UNION, Northumberland.—Medical Officer for the East District (£25 per annum, and extra fees): applications, to Wm. Johnson, Clerk to Guardians, Alnwick, 6th March; election, 8th.
- BIRMINGHAM, Parish of—Five District Medical Officers (£200 per annum each, and fees for visiting pauper lunatics): applications to W. Thompson, Clerk to the Guardians, March 15th; election, 22nd; duties, 25th.
- FALMOUTH UNION, Cornwall—Medical Officer for the Constantine District: applications to the Vicar of Constantine: vacancy, March.
- GLASGOW—Medical Officer for Third District, City Parish.
- GRAVESEND and MILTON UNION—Medical Officer for the Milton District (£70 per annum, and extra fees): applications to Wm. Reed, acting Clerk to Guardians, 4, Edwin Street, Gravesend; election, 2nd.
- KIRKMICHAEL, Dumfriesshire—Parochial Medical Officer: applications, March 1st, to Inspector of Poor.
- KNARESBOROUGH UNION, Yorkshire—Medical Officer and Public Vaccinator for the Knaresborough District (£55 per annum, and extras): applications, March 7th, to Edwin Smith, Clerk to Guardians; election, 8th.
- WIGAN UNION, Lancashire—Medical Officer for the Wigan District and the Workhouse.
- WOODSTOCK UNION, Oxfordshire—Medical Officer and Public Vaccinator for the Woodstock No. 1 District (£40 per annum, and midwifery and vaccination fees): applications to R. B. B. Hawkins, Clerk to the Guardians, 27th; election, 28th.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

HIGHLY complimentary resolutions have been passed on the occasion of Dr. D. Hadden severing his connexion with the Dromdaleague Dispensary.

THE Longford Board of Guardians decided, at their last meeting, to increase the salaries of the three dispensary district medical officers from £80 to £100 *per annum* each.

THE IRISH CENSUS, 1871.

In a few weeks the census will be taken in Ireland, and we have no doubt that it will fully bear out the statements already made, that the Medical Charities Act has worked beneficially in diminishing both the death-rate and the poor-rates of the people of Ireland; and that the Poor-law medical officers of that country have done their duty in such a manner as to place their claims for increased remuneration, etc., in a most favourable light, before not only the various boards of guardians and the Commissioners, but also the Imperial Parliament. Small-pox, except for the present unhappy outbreak, principally due to importation from England, will have been found to have been stamped out by the efficient manner in which the Dispensaries and Compulsory Vaccination Acts have been carried out by our Irish brethren. Fever will be found to have greatly diminished; although, the registration of deaths having been introduced into Ireland during the last decade, there will of necessity be much greater accuracy than heretofore as to the number of cases. Other diseases will also, we dare say, contrast favourably with the returns from England and Wales. But, in casually glancing over the census of 1861, we are struck with the number of blind, and with this passage: "Munster in 1861, as also in 1851, had most blind—a circumstance to be accounted for, to a certain extent, by the ravages of the workhouse ophthalmia, not only during the famine-period, but extending to 1856." There were, at the date of taking the census in 1851, 995 blind persons in the workhouses of Ireland; on April 7th, 1861, there were 920; and the total numbers who suffered from ophthalmia in these institutions during the thirteen years from 1849 to 1861, both inclusive, were 199,773. Among other causes, this is attributed to variability and dampness of climate, and the want of special hospitals. The crowding together of multitudes of badly fed children and young persons in close ill-ventilated places tends to produce ophthalmia, which, by causing sloughing or ulceration of the transparent cornea, either induces destruction of the eye, or causes granular lids, which in process of time, by their incessant attrition, render that part of the eye opaque. We fear that we cannot hold out any prospect that this condition of things will be found in the next census returns to have much improved, because there are no provisions made for the isolation of diseases of the eye. There ought to be a male, a female, and a children's ward in every workhouse; and to the workhouse hospital of each of the large cities of Ireland an oculist ought to be attached. As we have already said of the broad field for pathology which is now allowed to lie fallow in these institutions, so we may add that there could be no better place to obtain a thorough knowledge of the various diseases of the eye. As to the necessity for the isolation of cases of diseases of the eye, a reference to the Annual Report of the Poor-law Commissioners shows that, whilst but 2,068 persons were admitted into the workhouses of Ireland during the year 1869 labouring under diseases of the eye, 2,800 actually contracted the disease in the workhouses, making a total in the Irish workhouses alone of 4,868 cases of diseases of the eye treated in these institutions. Of these, 2,541 were children under fifteen years of age. This is matter for grave consideration. With regard to the appointment of oculists to the various workhouses in the several large cities, we all know that the Poor-law medical officer is expected to know everything and do everything; but we also know that it is not given to every man to have that delicacy of touch and accuracy of sight necessary for the oculist; and most men who devote themselves to the treatment of ophthalmic disease take it up as a speciality. We therefore recommend the special appointment. Many ratepayers and boards of guardians, with shortsighted notions of economy, will pooh-pooh the idea of attaching an oculist to a workhouse hospital; but they may not be aware that they had the privilege, in the year 1869, of paying £6,695 for relief in blind and deaf and dumb asylums and extern hospitals for 533 persons; and that this was an increase of £415 over 1868. If the sight of the odd thirty-three individuals had been saved, it would have

gone a long way towards paying an oculist for each of the large work-houses in Ireland; and many who are becoming burthens might have been enabled to earn their bread.

ABUSE OF DISPENSARY RELIEF.

THE *Waterford Daily Mail*, we gladly observe, calls upon Mr. Leamy, one of the Waterford guardians, to explain the principles upon which he acts in distributing "red tickets" broadcast, after the reckless fashion which he described himself recently as pursuing. Quoting our recent observations on the abuse of red tickets by guardians, our contemporary remarks: "If Mr. Leamy pursues the course which is pointed out in these remarks, he is acting contrary to the interests of the rate-payers who elected him; and it will be for them to consider whether this abuse of his power as a Poor-law guardian meets with their concurrence. If it does not, they have the remedy in their own hands." Now we heartily hope that the ratepayers will demand this explanation, and that Mr. Leamy and his brother guardians will cease from a course of profligate liberality at the public expense, which is extending widely not only in this, but in other unions, and which is the chief blot on the Irish Poor-law system. The facilities for this abuse form the chief objection against introducing the Irish dispensary system here.

POOR-LAW MEDICAL INSPECTORSHIP OF IRELAND.

THERE are several candidates for this office. Among those who, up to the present time, appear to be most in favour, are Dr. Walshe, of the Jervis Street Hospital, late of the Army Medical Service, and Sir William Carroll. Sir Dominic Corrigan and Mr. Pim, the members of Parliament for Dublin, are, we understand, exerting themselves on behalf of Dr. Walshe. Sir William Carroll, who has twice been Lord Mayor of Dublin, was a short time since candidate for the Collector-Generalship of Rates for the city of Dublin, and still more recently for the office of Apothecary-General for Ireland (an appointment which we considered it to be our duty to oppose in favour of inspectorship). We have not yet heard that there are any Poor-law medical officers in the field. The appointments up to the present time have partaken very much of a political character; this may possibly deter Poor-law medical officers from offering themselves; but we trust that some good candidates may yet come forth from the ranks of the service.

FEVER IN KILKEEL.

FATHER CONWAY has addressed a further correspondence to the Lord Lieutenant, giving a very distressing account of the fever and destitution in the Tuam Union, and the difficulty of getting relief and medicines for the sick. His present statements may be somewhat overcharged, as his former statements are alleged to have been; but there is evidently something in the case which he produces. The fever in Kilkeel and Kiltrasna really exists; and it may help to supply the key to some of Father Conway's difficulties, if we recall to mind the fact that Headford is one of those districts to which we have already alluded as being nearly eighty square miles in extent without either an apothecary or a midwife. As it appears, moreover, that the relieving officer is afraid to go near cases of fever, we can believe that the sad state of things which Father Conway describes is not altogether imaginary.

SUPERANNUATION.

WE learn that some underhand proceedings amongst the ratepayers were recently employed to intimidate the guardians of Glennamaddy, with a view to coerce them into depriving their retiring medical officer of the slender support allowed by the Superannuation Act (1869) to officers who have long and faithfully served the public. The eulogies passed by the Board on the long and efficient services of Dr. O'Sullivan testify that his claim is not invalidated by neglect or inefficiency on his part. Looking, therefore, to the spirit of the Act and to the circumstances of the case, we cannot doubt that the guardians will act in accordance with the force of precedent and with the dictates of justice, and will award the superannuation allowance which their medical officer is fairly entitled to ask at their hands. Any other course would involve a grievous private injustice, and a great public discouragement in circles extending beyond the union specially concerned in the present instance.

VACANCIES.

CASTLEREA UNION, co. Roscommon—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Ballaghaderreen Dispensary District (£110 per annum, and fees): applications to John Flannery, Secretary, Ballaghaderreen; election, March 3rd.

DUNSHA HLIN UNION, co. Meath—Medical Officer and Public Vaccinator for the Dunboync Dispensary District (£95 per annum, and fees); applications to Marcus O'Brien, Secretary, Cloncy; election, March 3rd.
SOUTH DUBLIN UNION—Medical Officer for the Rathmines Dispensary District: applications, 27th, to J. H. Evans, Chairman of Committee, 71, Rathmines Road, Dublin; election, 28th.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Monday, Feb. 20th.

AMENDMENT OF THE MEDICAL ACTS.—In reply to a question from Dr. Lush, Mr. Forster, the Vice-President of the Council, stated that it was not his intention to bring in a Bill for the Amendment of the Medical Acts during the present session.

Tuesday, Feb. 21st.

PROTECTION OF INFANT CHILDREN.—Mr. Charley moved for leave to bring in a Bill for the better protection of the lives of infants. He believed that all were agreed in the necessity of some such measure since the recent case of Margaret Waters, and the horrible details which were disclosed. The leading provision of the measure was, that henceforth it shall not be lawful for any person to take children under a certain age from their parents or guardians for the purpose of nursing without a licence under the hands of a magistrate, the production of a certificate from a magistrate or minister of religion, or a registered medical practitioner, which certificate shall declare that they had investigated the matter, and were satisfied of the good character of the applicant for the child, and her ability to supply it with food and lodging. The licence to endure for a year, but to be capable of suspension. There would be also a provision in the Bill, imposing penalties for any breach of the above conditions. He returned thanks to the Home Secretary and the President of the Poor-law Board, for the valuable assistance which they had rendered him in framing the Bill. Leave was then given to bring in the Bill.

OBITUARY.

CYPRIAN M. V. COUNT WOLLOWICZ, M.D.,
STAFF-ASSISTANT-SURGEON.

THE Army Medical Department has sustained an irreparable loss by the death of Assistant-Surgeon Count Wollowicz, who expired after a prolonged illness at the Royal Victoria Hospital, Netley, on the 20th instant, at the early age of thirty-two years. Count Wollowicz was a native of Lithuanian Poland, and belonged to a family long distinguished in the annals of that unfortunate country. Of an ardent temperament, and animated by generous feelings of youth and patriotism, he took up arms in the last revolutionary movement which ended so disastrously for his countrymen. Having escaped from Russia, he turned his attention to the subject of medicine, which he studied at Berlin and Munich. He took out his Doctorate of Surgery and Medicine at the University of the latter city, his inaugural dissertation being a contribution to the pathology and treatment of iritis. This dissertation was published in 1862 at Munich, and was illustrated by an interesting series of chromolithographic drawings. Passing from Germany, Count Wollowicz subsequently studied for two years in Paris, and then travelled in Spain and Italy. Eventually he came to England, and, obtaining under distinguished influence an act of naturalisation, became regularly constituted a British subject. In 1867 he competed for a commission in the Army Medical Department; and, notwithstanding the difficulties which unavoidably attended the circumstances of his being a foreigner by birth and study, and his comparative want of familiarity with the use of the English language, he took the second place among forty-four competitors in the combined Chelsea and Netley Examinations. The Abyssinian Expedition was then in progress, and Count Wollowicz, having applied for employment in it, was despatched at once to the seat of war. In Abyssinia he contracted bowel-disease, and this probably laid the seeds of his last fatal illness; for, from the time of his return from that country to Netley, he suffered at intervals from obscure abdominal pains, with occasional attacks of a more or less dysenteric character. He, however, continued to work very laboriously, often passing more than half the night in study. During this period he was associated with Professor Parkes in a course of physiological experiments on the influence of wine and alcohol on the human body, which formed the subjects of two papers read at the Royal Society under their conjoint names. He also acted for some time as assistant to Dr. Aitken Professor of Pathology in the Army Medical School.

Count Wollowicz was not only an adept in his profession, but was also a profound scholar in general European literature. His classical attainments were of the highest order; and, in addition to the Russian and Polish languages and the language of his adopted country, he spoke fluently French, German, Spanish, and Italian. With all his varied attainments, no man was ever more modest and unobtrusive. He was so gentle in disposition, so sympathetic in friendship, so true and noble in all his conduct, that he was truly loved by all with whom he was associated. His friends fondly looked forward to his becoming a distinguished ornament not only of the department to which he had become affiliated, but of the medical profession at large. The sad event, which has now dissipated all these hopes, has caused a void which it will be difficult indeed to refill.

The deceased officer left minute directions, among other matters, regarding the examination of his body after death. The symptoms left no doubt that a fecal fistula had become established between some portion of the intestines far beyond reach, and the fundus of the bladder; and at the *post mortem* examination it was found that the lower part of the ileum was the portion thus involved. Although there were extensive close adhesions between the organs just indicated, there had not been any general peritonitis, although there were other great complications.

Count Wollowicz requested that his heart might be preserved and sent back to the place of his paternal estate in Poland. He was the last male member of his family; his only brother, a Lieutenant in the Russian Imperial Guards, having died at St. Petersburg about two years ago. The title was a German one, the deceased being a Count of the German Empire.

WILLIAM RICHARDSON, L.S.A.

MR. WILLIAM RICHARDSON, L.S.A., died at Stockton on February 18th, of paralysis at the age of fifty-seven. For upwards of thirty-five years he had successfully practised in that town, of which he was mayor in 1857-8; he was also for many years alderman and justice of the peace. Mr. Richardson was well-known in the north of England as an ardent supporter of all manly games, and in 1856 a testimonial of the value of a hundred guineas was presented to him in recognition of his patronage of English sports. He was a good friend to the poor in Stockton, and from the kindness and superiority of his character was held in affectionate esteem by all classes. He was for many years a member of the British Medical Association, and a constant supporter of the Royal Medical Benevolent College.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, February 16th, 1871.

Briggs, George Chapman, Horncastle
Burroughs, George Edward Elton, Little Hampton, Sussex
Renwick, William, Tyr Phil, Glamorganshire

The following gentlemen also on the same day passed their first professional examination.

Piggott, Edward Alfred, St. George's Hospital
Salmon, Alfred Lidgley, St. Bartholomew's Hospital

As an Assistant in compounding and dispensing medicines.

Savory, Harry Banting, Painswick, Glamorganshire

MEDICAL VACANCIES.

THE following vacancies are announced:—

- EARL OF DARNLEY LODGE**, Manchester Unity, Gravesend—Surgeon: applications, to T. Champion, Sec., 34, Cobham Street, Gravesend, 27th.
- GENERAL HOSPITAL**, Birmingham—Assistant Dispenser (£40 per annum): applications, March 9th, to F. Fowke, House Governor and Secretary: election, 17th.
- EDINBURGH DENTAL DISPENSARY**—Two Medical Officers: applications to William Kelso Thwaites, Secretary.
- HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST**, Brompton—Physician: applications, to Henry Dobbin, Sec., March 8th.
- KENT COUNTY OPHTHALMIC HOSPITAL**, Maidstone—Consulting Surgeon: March 18th.
- NOTTINGHAM DISPENSARY**—Hon. Physician; Four Hon. Consulting Surgeons; Assistant Resident Surgeon (£120 per annum); election, 27th. Applications to Martin J. Preston, Secretary.
- QUEEN ADELAIDE DISPENSARY**, Bethnal Green Road—House-Surgeon (£100 per annum, with furnished apartments, coal, and light): applications, 28th, to Rev. T. Peckston, Hon. Sec., 260, Cambridge Road; election, March 3rd.
- MALE LOCK HOSPITAL**, 91, Dean Street, Soho Square—House-Surgeon: applications, to Henry J. Ker Porter, Sec., 27th; vacancy, March 1st.
- ROYAL SOUTH LONDON DISPENSARY**, St. George's Cross—Honorary District Surgeon: applications to Mr. Hentsco.

RUGBY SCHOOL—Medical Officer.

ST. BARTHOLOMEW'S HOSPITAL—Casualty Physician: applications, to Wm. Henry Cross, Clerk, March 11th; appointment, 14th.

ST. MARY'S HOSPITAL MEDICAL COLLEGE—Professor of Chemistry and Practical Chemistry: applications, to J. G. Wilkinson, Secretary, March 6th.

ST. PETER'S HOSPITAL FOR STONE, etc., Berners Street—House-Surgeon (£50 per annum, with rooms and breakfast): applications to the Secretary.

SHEFFIELD PUBLIC HOSPITAL and DISPENSARY—Surgeon-Accoucheur: applications, 27th, to J. C. Hall, Secretary; election, March 1st.

STOCKPORT INFIRMARY—Assistant: applications, to S. W. Wilkinson, Secretary, 27th.

WATERLOO DISPENSARY, Liverpool—Honorary Medical Officer: applications, to the Secretary, 28th.

WESTMINSTER HOSPITAL—Resident Obstetric Assistant: applications, to F. J. Wilson, Secretary, 28th.

WICKLOW, County of, **INFIRMARY**—Apothecary: applications to Rev. Henry Rooke, Secretary; election, March 1st.

WORCESTER GENERAL INFIRMARY—House-Surgeon's Assistant and Dispenser (£50 per annum, and board and washing): applications, to Alfred P. Watkins, Secretary, March 1st.

YORK DISPENSARY—Resident Medical Officer: applications, to Sec., March 4th.

[For Poor-law Vacancies see Poor-law Department.]

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

- *CLARKE, W. Fairlie, M.B., appointed Assistant-Surgeon to Charing Cross Hospital.
- TOMES, C. S., Esq., appointed Assistant Dental Surgeon to the Dental Hospital of London, *vice* T. H. Harding, Esq.
- WHETTLE, W. G., appointed House-Surgeon to the Royal Cornwall Infirmary, Truro, *vice* *Vacy Ash, M.B., resigned.
- WILLIAMS, J. Llewelyn, M.B., appointed Medical Officer of Health for the Borough of Wrexham.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

- CHARTERIS.—On February 19th, at Hipperholme, near Halifax, the wife of *Wm. Charteris, Esq., Surgeon, of a daughter.
- ELLIOTT.—On February 1st, at Chichester, the wife of George H. Elliott, Esq., Surgeon, of a daughter.
- GAIRDNER.—On February 16th, at Glasgow, the wife of *W. T. Gairdner, M.D., of a son.
- KNOTT.—On February 18th, at Bugbrooke, near Weedon Royal, the wife of *W. P. Knott, Esq., Surgeon, of a son.
- WINTERBOTHAM.—On February 20th, at Cheltenham, the wife of *Lauriston Winterbotham, Esq., Surgeon, of a daughter.

DEATHS.

- *CHESTERMAN, Shearman, Esq., Surgeon, of Banbury, suddenly, at Newbury, Berks, aged 65, on February 1st.
- *EVANS, John, Esq., Surgeon, at 40, Queen's Road, Bayswater, aged 46, on February 18th.
- *HATTON, John, M.D., late of Belvedere, Kent, at Cheetham Hill, near Manchester, on February 1st.
- SMITH, Joseph, Esq., Surgeon, at Nilford Place, Brixton, aged 78, on Feb. 7th.

Mr. HELLICAR and Mr. Hill, both of Bristol, have contributed upwards of £3000 towards the new building fund of the West of England Sanatorium, Weston-super-Mare. Plans have been prepared for the enlargement of the building, which is to be made available for 100 beds. The Prince of Wales is to be invited to lay the foundation stone.

OPERATION DAYS AT THE HOSPITALS.

- MONDAY** Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
- TUESDAY** Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.
- WEDNESDAY** .. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.
- THURSDAY**!... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
- FRIDAY** Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.
- SATURDAY** ... St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

EXPECTED OPERATIONS AT THE HOSPITALS.

KING'S COLLEGE HOSPITAL, Saturday, February 25th, 2 P.M. Removal of Sebaceous Tumour from Face (three cases), by Sir W. Fergusson; Removal of Tumour (Scirrhus) from Breast, Removal of Tumour from Back, by Mr. Smith; Excision of Elbow, Excision of Hip, by Mr. Wood.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

- MONDAY.—Medical Society of London, 8 P.M. Mr. J. W. Barnes, "A Case of Suffocation by a portion of Orange lodged in the Rima Glottidis"; a communication from Mr. Erasmus Wilson; Mr. John Pennefather, "Obstructions of the Eustachian Tube"; Dr. Edwards Crisp, "On Small-pox: its prevention."
- TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Althaus, "On Neuritis of the Brachial Plexus"; Dr. Hilton Fagge, "On the Sporadic Cretinism occasionally seen in England."—Anthropological Institute of Great Britain and Ireland, 8 P.M.
- WEDNESDAY.—Royal Microscopical Society, 8 P.M. Mr. James Bell, "Notes on the Microscopical Examination of Water for Domestic Use."—Royal Medical and Chirurgical Society, 8 P.M. Annual Meeting.—Obstetrical Society of London, 8 P.M.
- THURSDAY.—Harveian Society of London, 7 P.M., Council Meeting. 8 P.M., Dr. Tilbury Fox, "On the Lichen Planus of Wilson."—Royal Society.—Chemical Society.—Linnæan Society.
- FRIDAY.—Western Medical and Surgical Society of London, 8 P.M.

NOTICES TO CORRESPONDENTS.

ALL *Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.*

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE do not concur in Dr. Greene's warm denunciation of the use of postal cards for conveying to the Medical Officer of Health of the Parish of St. Saviour information of the localities of infectious disease, whether in the houses of the rich or the poor. These are not among medical secrets at all; and no one ought to, or we suppose does, make a compact with his patient to keep them secret. We should be glad to see lists published in the most open manner, and see no objection to the postman knowing the fact as well as everybody else.

OUT PATIENT HOSPITAL REFORM.

SIR,—Kindly allow me to acknowledge in your columns the receipt of the following sums towards the expenses of the Out-patient Hospital Reform Committee:—Dr. Montague Thomas, £2 2s.; Alfred Cooper, Esq., £1 1s.; George Lawson, Esq., £1 1s.; Dr. Symes Thompson, 10s.; Dr. Rumsey, 5s.; Dr. Payne, 5s.; Dr. Samelson, 5s. I am, etc., ALFRED MEADOWS.
27, George Street, Hanover Square.

VACCINATION AND REVACCINATION.

MR. J. PENNING BAKER writes to us:—At a time like the present, when an epidemic of small-pox is still with us, and the public alarm has been thoroughly roused, it particularly devolves on the profession, not only to counteract all influences, however remote, having a tendency to increase the centres of this dread disease, but, moreover, to use the utmost exertions to calm the panic and ease the various misgivings existing in the minds of our patients.

It is with this view that I bring before your notice a course that is now being adopted by some medical men, as it was about five years ago, when small-pox was rife in particular localities. It is not an uncommon thing to hear, when practitioners have been consulted as to the propriety of revaccination, that they have expressed themselves somewhat to the effect that *there is no necessity as the arm is well marked*. I have frequently seen such arms, when *one* or *two*, and *rarely three*, more or less imperfectly defined cicatrices were alone visible. As examples of my statement, I have seen three persons with two fairly marked cicatrices, each with a diameter of three-eighths of an inch, and one case with one well-defined cicatrix, with the longest diameter of five-sixths of an inch, contract the disease in its confluent form, with death resulting in one of the former instances. These persons evidently were not protected as, *a priori*, they would have been had revaccination been performed. I could enumerate many instances where persons refusing secondary vaccination subsequently had the disease, and in whom the marks of primary vaccination were more or less clearly to be seen.

My experience, obtained during the present and former outbreaks of the disease, will not enable me to be lulled into a feeling of security when I see arms presenting two, or even three, so-called good marks; and I almost daily witness instances where subjects having such marks are successfully revaccinated. By successful revaccination, I, of course, mean where the local manifestations are characteristic, with, in some cases, more or less constitutional disturbance—effects that usually run their course more rapidly, in some instances arriving at maturity on the sixth or even an earlier day; modifications due, probably, to the diathetic influence (insufficiently protective) of the early cow-pox disease.

Mr. Marson, to whom we are greatly indebted, says that "vaccination may be relied on when four or more vesicles have formed which have left good dotted cicatrices"—clearly inferring that he mistrusts the protective power indicated by the presence of less than that number. An instance is afforded in my own person of the perfectly protective influence given by the possession of five good cicatrices, as I have been exposed to the disease many hours daily for several months (even when in indifferent health), and, although revaccinated on three occasions, not the least effect was ever produced. I believe that the marks resulting from a successful primary vaccination can never be effaced; and their disappearance affords me indisputable evidence of what has been proved to be but too common—the number of imperfectly protective vaccinations that we are daily testing by the crucial experiment. And, in cases of secondary vaccination, in one instance only have I seen the typical vesicle free of areola on the eighth day, where appreciable signs of the primary vaccination could be distinguished. Nevertheless, I am convinced of the insecurity of our reliance on the existence of primary marks, even though they be well-defined and characteristic; they are no evidence that the protective power once given still exists; for it is but too clearly proved that many who are

susceptible to an impression, more or less marked, from a second vaccination, would, on ordinary exposure to its contagion, contract the disease, or be greatly endangered by such exposure.

Finally, I submit, more especially at seasons of epidemic small-pox, when the chances of infection are so much enhanced by the multiplication of centres of disease, that the practice of trusting to two or even three cicatrices, or even to marks at all, and thus neglecting a measure that, to say the least, is precautionary, is at once mischievous and full of error, and scarcely in accordance with the teachings of practical experience.

As an appendix to the above communication, allow me to add, that I have been in the habit for the past five or six years of always mixing my lymph with, as nearly as possible, one-third of glycerine, whereby there is not only considerable saving, but, by preventing the too rapid drying of the lymph, a more certain absorption is, I think, ensured. No failures attend this admixture. I have been very recently (even while writing this) informed that the proportion of one half glycerine and one half lymph has been of late successfully used. As I have neither seen any record of this plan, nor even heard of its adoption, except by myself nearly six years ago, perhaps you may deem it worthy of notice in these days of scarcity of, and great demands for, the vaccine matter.

SIR,—In a kind and prominent notice which you gave in your last number, of a paper recently read for me before the Royal Society, I am described twice as F.R.S. Will you allow me to state that I have no claim whatever to these honourable initials, which in the present instance seem to have been given to me instead of to my friend Mr. Busk, who was kind enough to introduce my paper? In the same notice, also, for "six" read "sixteen" charts of temperature.

Leeds, February 20th, 1871. I am, etc., T. CLIFFORD ALLBUTT.

THE BABES OF COLSTERWORTH.—"The town of Colsterworth in Lincolnshire rejoices in two, and only two, medical practitioners—one named *Priest*; the other, *Heaven*."—B. M. J., February 18th, 1871.

Bless'd are the babes of Colsterworth,
To whom alone 'tis given,
To have a *Priest* preside at birth,
Or be transferr'd to *Heaven*.—Δ

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, Feb. 4th; The New York Medical Record, Feb. 9th; The Boston Medical and Surgical Journal, Feb. 9th; The Madras Mail, Dec. 12th; The Shield, Feb. 18th; The Philadelphia Medical Times, Feb. 8th; The Waterford Mail, Feb. 13th; The Bridgewater Mercury, Feb. 8th; The Yorkshire Telegraph, Feb. 11th; The Brighton Examiner, Fashionable Directory, etc., Feb. 14th; The South Eastern Gazette, Feb. 18th; The Midland Counties Express, Feb. 18th; The Stroud News, Feb. 17th; The Dover Chronicle and Kent and Sussex Advertiser, Feb. 18th; The South London Press, Feb. 18th; The Liverpool Mercury, Feb. 21st; The Limerick Reporter and Tipperary Vindicator, Feb. 3rd; The Newcastle Daily Journal, Feb. 22nd; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Waters, Chester; Iota, Edinburgh; Dr. R. Maclaren, Carlisle; Mr. John Liddle, London; Mr. Worth, Nottingham; Mr. D. Tulloch, Lochcarron; Mr. J. B. Davies, Manchester; The Treasurer of the Leeds Dispensary; Dr. Bryan, Northampton; Dr. Gairdner, Glasgow; Dr. Joseph Bell, Edinburgh; Mr. E. W. Howey, Bromyard; Messrs. Hitchcock and Garrad, London; Dr. E. Jones, Ross; Dr. Cumming, Edinburgh; Mr. Victor de Méric, London; Dr. Sieveking, London; Mr. De la Garde, Exeter; Dr. A. P. Stewart, London; Dr. W. Cheadle, London; Mr. W. R. Heath, Manchester; Mr. W. Elliott Porter, Lindfield, Sussex; Mr. Druce, Oxford; Dr. Grieve, Hampstead Small-pox Asylum; Mr. Barham, Bridgwater; Dr. Palmer, Manchester; Mr. F. Brocklehurst, Ambleside; Mr. St. George Mivart, London; Mr. H. Marks, Dublin; Dr. Beales, Congleton; Mr. F. T. Procter, London; Mr. Colthurst, Bristol; Mr. W. M. Crowfoot, Beccles; Mr. T. C. White, London; Mr. F. W. Brown, Uppingham; Mr. F. C. Mudd, Uckfield; Dr. Wardell, Tunbridge Wells; Dr. Crosby, London; Juvenis, Leeds; Dr. F. T. Roberts, London; Dr. W. Evans, London; Mr. W. W. Reeves, London; The Secretary of the Clinical Society; The Secretary of the Royal Medical and Chirurgical Society; Dr. Cordwent, Taunton; Dr. Lyell, Glasgow; Mr. Grant, Maidstone; Mr. Winterbotham, Cheltenham; Dr. Moore, Dublin; Mr. H. Savile Clarke, Stockton; etc.

LETTERS, ETC. (with enclosures), from:—

Mr. Erasmus Wilson, London; Dr. C. Handfield Jones, London; Mr. Alfred Haviland, London; Mr. Jessop, Leeds; Dr. D. Campbell Black, Glasgow; Our Dublin Correspondent; Dr. Drysdale, London; Dr. Paul, London; Dr. Cotton, London; Dr. Tibbits, London; Messrs. Fannin and Co., Dublin; Dr. Roth, London; Mr. J. D. Brown, Haverfordwest; Mr. Waren Tay, London; Dr. C. Parsons, Dover; Dr. J. Fitzpatrick, Maidstone; Dr. A. Simpson, London; Dr. Robinson, Harrogate; M.D. Edin.; Dr. G. H. Philipson, Newcastle-upon-Tyne; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Dr. Jukes Styrap, Shrewsbury; Our Glasgow Correspondent; Dr. J. G. Swayne, Clifton; Dr. T. G. Wright, Wakefield; Mr. Campbell De Morgan, London; Dr. Greene, London; Dr. Ballard, London; Dr. Bradbury, Cambridge; Mr. C. Roberts, London; Lieutenant-Colonel Loyd Lindsay, London; Dr. J. Batty Tuke, Cupar, Fife; Mr. S. Wood, Shrewsbury; Mr. William Adams, London; Dr. G. Buchanan, Glasgow; Mr. H. Cripps Lawrence, London; Dr. E. Clapton, London; The Honorary Secretary of the Glasgow Ophthalmic Institute; Our Edinburgh Correspondent; Dr. Balthazar Foster, Birmingham; Mr. B. E. Brodhurst, London; Mr. Domeier, London; Mr. James Dixon, London; Mr. D. Kent Jones, Beaumaris; Mr. Vincent Jackson, Wolverhampton; Mr. Partridge, London; Mr. T. H. Bartleet, Birmingham; Mr. W. Charteris, Hiperholme; Mr. C. P. Skrimshire, Brynmawr; Mr. Kendall, King's Lynn; Dr. Kelly, London; Dr. Alfred Meadows, London; Mr. Wagstaffe, London; Dr. Procter, York; etc.

LECTURES ON DERMATOLOGY.

DELIVERED AT

The Royal College of Surgeons of England.

By ERASMUS WILSON, F.R.S.,

Professor of Dermatology in the College.

LECTURE III.

THE doctrine that I am desirous to inculcate is that eczema is a simple inflammation of the skin; and that the varied manifestations which it is apt to present are due to peculiarity of structure of the integument on the one hand, and to peculiarities of constitution of the individual and duration of the disease on the other. It is evident that a natural accompaniment of inflammation of the skin is hyperæmia; that hyperæmia may involve the whole of the vascular portion of the skin equally, or may select the follicular plexuses in preference to the papillary plexuses; that one of the simplest of the consequences of hyperæmia will be arrest of nutrition of the epidermis and a resulting exfoliation of cuticle; and that another obvious consequence of hyperæmia of the skin will be, infiltration of the derma to a greater or less extent, and exudation of the infiltrated fluids, either beneath the cuticle, so as to give rise to vesicles, or an oozing moisture on the unbroken surface, or an abundant secretion streaming forth from excoriations or fissures. Then, as evincing additional force of the affection, we may have purulent discharges, pus, and pustules, taking the place of the primary lymph exudation; and at a later period, and evincing a chronic alteration, the substitution for the fluid exudation of an epithelial desquamation in the form of small scales, and constituting a squamous eczema, sometimes termed psoriasis, and sometimes pityriasis. Occasionally we hear the terms "catarrh" and catarrhal applied to eczematous inflammation; and we might with equal truth term catarrh an eczema of the mucous membrane of the air-tubes, as is sometimes undoubtedly the fact.

The wax cast numbered 27 offers an example of a portion of the skin of the bend of the elbow in a healing stage, that has recently been in an active state of exudation. And the evidences of congestion, of infiltration, and of tumefaction of the skin are still apparent in the redness of surface, the polish and fine wrinkling of the newly formed epidermis, the deep ruts of the lines of motion, and the tumid and seemingly puffy condition of the intervening skin. I may add, by way of parenthesis, in connection with this case, that, finding it very rebellious to treatment, I painted it with a tincture of croton-seeds, with the result of immediately arresting the exudative process and setting up a curative action.

Eczema capitis is illustrated in No. 29, and demonstrates a very common form of that affection. There is evidence in this delineation of the presence of ichorous exudation; the drawing together of the hairs in pencil-tufts is due to the flowing downwards of a fluid secretion; and the thick broken crust embedded among the roots of the hair over the entire head, which has gained for the case the epithet of eczema scabidum, is a consequence of the exudation and desiccation of an ichorous fluid, partly limpid and transparent, partly viscous, and partly opaque and puriform. On the forehead, the incrustation becomes gradually thin, and in the fissures between these crusts may be perceived the vivid redness of the inflamed skin.

Next in succession to eczema vesiculosum, eczema ichorosum, and eczema pustulosum, we come upon a series of illustrations of a more chronic condition of the eruption than the preceding, on one in which the fire of the inflammation would seem to be exhausted, wherein there is no exudation, and which is characterised especially by desquamation, constituting a form of the disease which may be termed *eczema squamosum*. They present a somewhat considerable variety of tint of colour, ranging from scarlet or arterial to purple or venous, and a not less striking variety in the character of their desquamation. All have received from the French dermatologists, under whose care the patients were treated, the name of "psoriasis", and one of them is termed by Bazin "psoriasis pityriasiforme."

We have evidence in these instances of the proper application of the term *psoriasis*—namely, to a dry and itchy psora or eczema, and at the

same time to a rough psora or psora leprodes. Psoriasis, consequently, is a chronic eczema; and it seems difficult to understand why the latter term should not be generally used. In employing the two words eczema and psoriasis, a suspicion is awakened that they signify two different diseases, whereas in reality they are stages of the same disease. Moreover, the word psoriasis has been applied erroneously to another affection, the lepra of the Greeks; and is also not uncommonly used for every affection of the skin attended with dryness and scaliness, which is otherwise unrecognised. It would be wise, therefore, under these circumstances, to call eczema eczema, and lepra lepra; and no substantial progress will be made in dermatopathology until this obvious truth shall be accepted and adopted in practice.

Another observation to be made in reference to these cases, relates to the important secondary change that takes place in the structure of the corium. It is infiltrated and thickened, and at a later period more or less indurated. It is to these pathological conditions of the skin that are due its prominence or apparent swelling and loss of elasticity; and to the same causes are to be referred its rigidity and wrinkling. In some situations and in very chronic cases, moreover, there are super-added to these states of the skin a hardness and brittleness that result in the cracking or fission of the corium upon the mere act of motion or stretching.

If we were to review the pathological steps of the process, we should find them very few and simple; for example, there are hyperæmia, then infiltration; next desquamation; and, lastly, fission; and associated with these lesions, itching to a greater or less extent; all of these symptoms being the pathognomonic characters of chronic eczema.

In examining the present series closely, we are struck with the exact similarity of the pathological phenomena of the disease, the thickened and hardened character of the inflamed skin, and the active production of an epithelial layer which is cast off in the form of broken fragments and scales, as soon as it is produced. And if this be the case in the instance of the objective phenomena, it is equally so with the subjective phenomena or symptoms; these are, the extreme stiffness of the part, the violent and intermittent pruritus, and the copious exudation of a colourless lymph whenever, for the relief of the pruritus, the part is severely rubbed. The last of the preparations, moreover, exhibits another consequence of infiltration and induration of the skin—namely, a state of brittleness which is manifested by cracks or fissures, technically called rhagades, and these rhagades give forth a colourless ichor as well as blood.

We have now run through the series of what may be termed the regular forms of eczema; its incipient and early forms, namely, erythematous, papulous, and vesicular; and its more advanced forms, namely, ichorous, pustulous, and squamous. Or we might divide them differently, and say the *dry* forms, namely, erythematous, papulous, and squamous; and the *moist* forms, namely, vesicular, ichorous, and pustulous.

The study of these various forms of the disease has suggested the presence here and there of a tendency to hypertrophy: in one form, it may be a hypertrophy of tissue, as in the example of the thickened and indurated corium; in another, it may be a hypertrophy of the epithelium, as in the instance of eczema exfoliativum; or again, it may be a hypertrophy of secretion, as in the example of eczema ichorosum and eczema pustulosum. There is reason to believe that the hypertrophy is not of the active and preconcerted kind, but of the passive kind; the detention of the blood in the dilated capillaries supplies an additional nutrition and power of nutrition to the cells, and the cells make profit of this superabundance by hyperplasia, as well as by hypertrophy. It is in this way that we must seek to explain the phenomena manifested by the next series of preparations, which are five in number.

We can have no doubt in regarding these models that we have before us as eczema; we need but compare them with those that have gone before to be assured of the fact; but, nevertheless, a strange and new feature has seemingly been added to the disease, namely, the production of epithelium in large quantity in Cases 42 and 43, to the extent of giving rise to callosities of considerable thickness and extent; and in prodigious quantity in No. 44, thereby giving origin to a rugged mass splitting into fragments in the vertical axis of the mass. Further evidence of this very remarkable hypertrophy of the epidermis under the stimulus of eczema is shown in preparation 45, which exhibits portions of epidermis removed from the heel, showing the fibrous character of the horny mass and the vertical direction of the fibres. The conclusion at which we are bound to arrive, as it appears to me, from the examination of the objects before us, is that to the ordinary products and consequences of inflammation of the skin presented by eczema we must add hypertrophy of the horny portion of the epidermis; and that we may regard this phenomenon as the result of a chronic congestion of the

capillaries, acting as a stimulus to the normal nutritive function of the skin.

If we move a step further, and visit, so to speak, the more highly organised tissues of the skin, we shall meet not very rarely with an eczematous congestion of that organ which results in hypertrophy of the vascular portion of the derma, and particularly its papillæ cutis. And these cases of increase of growth of the epithelium on the one hand, and of the vascular tissues of the skin on the other, lead us onward to larger and more massive forms of hypertrophy—forms which are already foreshadowed by the œdematous hypertrophy of a large portion of a limb, and sometimes of the entire limb; a state to which I have ventured to assign the distinctive appellation of “spargosiforme;” and cases which in all but their mode of origin may be fairly compared to the Arabian elephantiasis.

We must now retreat a step to take into consideration a form of hypertrophy resulting from eczema which affects a special portion of the epithelium, namely, the nails; and the morbid appearances which are presented in this case are analogous to those massive hypertrophies of the epidermis which we have already contemplated in preparations 42 to 45. From attacking the walls and matrix of the nails and manifesting its pathological metamorphosis in the horny matter of the nails, I have termed this affection *eczema onychicum*.

This is not the only example by many of the intervention of pathology for the illustration of normal structure; and pathology in this instance may be said to have contrived a rude model by which to distinguish that portion of the nail which is the product of the matrix from that which is produced on the surface of the latter by the vallecule unguis; it is the former of these which has undergone the morbid change, while the latter remains comparatively unaffected.

Just as eczema onychicum carries us back to hypertrophy of the epidermis in conjunction with eczema, another preparation, which is numbered 513, recalls us to the ichorous and the purulent exudations which we have already had occasion to submit to inquiry in connection with moist eczema. The pus-globules in the purulent secretions of eczema are generally derived from the epidermic cells; and in some instances we meet with an illustration of a portion of skin converted into a secreting surface without any abrasion of the epidermis. Such a state of the skin finds its nearest parallel in the mucous membrane; and we might by a figure of speech make the statement that the skin was converted into mucous membrane. Even the secretion bears a close similitude with the secretion of an inflamed mucous membrane; and the form of affection may very aptly be denominated *eczema mucosum*; and the same name may be applied to any part of the mucous membrane which is exposed to the air, and manifests a similar morbid process.

The disease is a peculiar one. The exposed part of the mucous membrane of the lips becomes inflamed; it pours out a muco-purulent secretion; the secretion dries and hardens; and in a short time one or both the lips may be enclosed in a sheath of dark brown or black colour and possessing the density of horn. I have usually met with this affection in young women, and occasionally in young men, one of the examples of the latter class being a young gentleman who was engaged to be married in a few months. In his case, it occurred to me that the too free use of the lips might have been the exciting cause of the disorder, and with his existing prospects the disease threatened to become chronic.

In reviewing the illustrations of eczema up to this point, we find that their number is fifty-three, and these fifty-three preparations supply us with a fair history of the various manifestations of the disease. It is to be hoped that time will add to their number, and that every year our stores may become richer and richer still.

THE LEVÉE.—At the Levée held on Saturday last, by his Royal Highness the Prince of Wales, on behalf of the Queen, the following members of the medical profession were presented:—Surgeons F. B. Baker and W. R. Lane, Grenadier Guards, by the Field-Marshal Commanding-in-Chief; Dr. Burrows, on appointment as Physician Extraordinary to the Queen, by Sir Henry Holland, Bart.; Dr. E. S. Cleveland, Surgeon, Madras Army, by the Secretary for India; Assistant-Surgeon C. Gray, Rifle Brigade, by Colonel Lord A. Russell; Dr. Robert H. More, R.N., Assistant-Surgeon H. F. Nathan, R.N., and Inspector-General Salmon, M.D., R.N. (on being appointed Honorary Physician to Her Majesty), by the Director-General of the Medical Department of the Navy; Assistant-Surgeon J. H. Connel Whipple, M.D., Coldstream Guards, by his Serene Highness Prince Edward of Saxe Weimer. The levée was also attended by Sir Henry Holland, Dr. Arthur Farre, Dr. F. Farre, Dr. C. D. Phillips, Dr. H. Cooper Rose, Dr. Sall, Dr. Sieveking, the Director-General of the Medical Department of the Navy, and Mr. Erasmus Wilson.

CLINICAL LECTURES ON SOME SURGICAL CASES.

DELIVERED AT

The Medical School of the Middlesex Hospital.

By CAMPBELL DE MORGAN, F.R.S.,
Senior Surgeon to the Hospital.

LECTURE II.

GENTLEMEN,—In the practice of your profession, mistakes are of as much importance as successes; and, if we profit by them as we ought, much more is to be learnt, and learnt, too, more impressively from them. The first case to which I shall draw your attention to-day is one which affords a practical illustration of my remark.

Some time ago, Dr. Goodfellow asked me to see a patient with him, who, he thought, was the subject of nasal polypus. She had considerable firm elastic swelling, with duskiess of the face, on the left cheek and side of the nose, with protrusion and eversion of the left eyeball. She could scarcely breathe through the left nostril; and the palate on that side was somewhat swollen and vascular. She was cachectic-looking, and had emaciated rapidly. She was, too, suffering from discharges and occasional hæmorrhages *per vaginam*, which digital examination proved to be due to incipient cancer of the uterus. Her only other symptoms were frequent sickness and a general torpid condition. She suffered very little pain in the face or head, and her chief complaint was of weakness and exhaustion. Now, although it is unusual, in my experience, to find cancer of the uterus complicated with cancer elsewhere—excepting, of course, as extensions from the neighbouring pelvic organs and glands, or parts in direct relation with them—I did, nevertheless, regard this woman as the victim of cancerous disease advancing rapidly towards the eye and brain through the bones of the orbit and skull. She was in consequence transferred to the cancer-ward, under my charge. She remained, however, but a comparatively short time; for her symptoms were soon aggravated. The sickness remained; she became more drowsy, and ultimately comatose; and in this state she died. I confess that so strongly was I convinced that this patient was affected with some deep growth involving the posterior regions of the face, and going on to invasion of the cranial cavity, that I did not look so closely to the case as I should otherwise have done. The symptoms correspond with those occurring in cases where cancer makes its way through the skull to the brain. You get a progressively drowsy or comatose condition, but without any active brain-disturbance. I have seen cases where, though the patients have retained consciousness, and indeed taken an interest in what was going on about them, to within a few days of death, the one hemisphere of the brain has been almost destroyed by malignant disease. But what did the *post mortem* examination reveal in this case? I am bound to say, gentlemen, my diagnosis was by it completely falsified. There were necrosis of the left nasal bone, and an enlarged and hardened, but not ulcerated, os and cervix uteri; but no cancer in the neighbourhood of the skull, orbit, or nostril. In fact, all the organs and parts of the body, excepting those mentioned, were in a fairly healthy state; and all swelling of the face had disappeared. That mere necrosis of the nasal bone should produce such grave symptoms, ultimately ending in complete stupor and death, without disease of the organs of organic life, is hardly conceivable. Those of you who saw this case will for ever bear in mind the experience which it affords and the lesson which it teaches.

Let us now turn to another case lying in Pepys Ward. A man was admitted ten days ago with considerable swelling of the right leg, which, he said, was of only one week's duration. He is twenty-two years of age, and of a pale pasty appearance. He says he has not lost flesh; but his pulse is uniformly quick. His right thigh measures three inches at the centre more than the left, and the skin is of brawny firmness. The swelling in the leg is also considerable; but the skin gives a different impression to the touch; there is only simple œdema. Before the swelling began, he suffered considerable pain down the thigh, but now is quite free from all uneasiness. His general condition is fairly good. At first, one was at a loss to explain this condition, as no hardness or tumour could be felt in the pelvis or abdomen, and no cause existed which would account for phlebitis or plugging of the femoral or iliac vein. It occurred to me that he might have deep-seated inflammation, periosteal or other; but the local and general symptoms did not correspond with such a notion. It was observed, on

further examination, that he had but one testicle; and, on inquiry, the patient said that in January 1869 he had had his right testis removed by Mr. Hulke for disease. The account afforded of him at that time by Mr. Hulke is this: that in December 1868 he was admitted for slight gonorrhœa, and acute orchitis of three days' duration, for which he was treated in the ordinary way; and the intensity of the symptoms soon subsided, and assumed characters which led Mr. Hulke to believe that it was not mere chronic induration after orchitis. The swelling, however, remained. On January 29th, 1869, an incision through the scrotum and tunica albuginea showed the structure of the testis to be abnormal; and it was in consequence removed. Only a small portion at the front and upper part was found to be healthy in structure; and the rest, both to the naked eye and microscopically, gave all the characters of medullary cancer. Here, then, we have a key to the swelling as it now exists in the thigh; and now, after two years' immunity, this patient is, I have no doubt, suffering from secondary cancerous deposit in the glands of the pelvis. It is rare for medullary cancer of the testis to leave the system so long free from secondary disease, though you may find the records of survival after from four to ten years from the time of operation. These, unhappily, are exceptional cases. The majority of patients die within from twelve to eighteen months of the appearance of the disease, whether operated on or not. In this case, the interval is probably to be explained by the very early removal of the organ after the first appearance of its morbid condition. For it is pretty clear that the testis was not the seat of cancer previously to the orchitis; because, setting aside the fact that, had it been so, the inflammatory action would more likely have seized upon the left testis than the right, the patient is quite sure that no alteration in size had taken place in it before the date mentioned—three days before his admission. We must bear in mind that soft cancer of the testicle is one of the most rapid malignant growths with which we are acquainted. Although the patient has been apparently well for so long a time, the germs of the disease must have been present in a quiescent state, and now at length are developing in the neighbouring glands. Since his admission, not only has the right leg increased, but the left also has become larger; and therefore, although the first return was in the glands of the same side as the diseased testis, we see that the disease is rapidly advancing, and has now invaded those of the left; yet no tumour can be felt externally. To-day, I find the skin softer and less brawny to the touch; and this possibly might lead you, as it does the patient, to think that the cause of the condition is disappearing. Not so, however; for this change is not at all incompatible with the presence of cancer; for, in the later stage, the veins either accommodate themselves to the surrounding deposit, or the collateral venous circulation is increased, so that entire subsidence of the œdema may ensue. Though the condition of the lower limbs has improved, you see that the patient is losing flesh and strength, and that the pulse is becoming progressively quicker; and these are often the only indications of rapidly advancing internal cancer. Bear in mind this; and also the fact that the elements of cancer may exist a long while without showing themselves as an actual disease in any of the organs or tissues of the body.

I will now draw your attention to a remarkable case which you saw a fortnight ago upon the operating-table. A man forty-five years of age, in good general health, and who had been a temperate and regular liver, was admitted into Forbes Ward in January, with a large tumour growing from the left pectoral region. Three or four years ago, he says, his trunk and extremities to the wrists and ankles were anæsarous and tense, but the left side more so than the right. For this, he was treated with iodide of potassium and hot baths, and the œdema disappeared; but, twelve months ago, he noticed a lump of the size of a small apple at the outer and upper end of the left breast; this grew rapidly, until, on admission, it measured in its longest vertical circumference $8\frac{1}{2}$ inches, and transversely $11\frac{1}{4}$ inches. It was soft in one spot to the outer side, where it felt elastic and almost fluctuating. It was apparently movable upon the chest-wall, though evidently stretching the pectoral muscle over it. The skin was not adherent, save at the point where it was soft and fluctuating; and there was no œdema of the arm. Springing from behind the left clavicle was a hard immovable tumour, that extended some distance up the side of the neck. This I regarded as probably of the same nature as the large tumour, but in a state of degeneration; for the evidence was conclusive that it had at one time been considerably larger than at present. Two questions suggested themselves on his admission. First, what was the nature of the disease? and, secondly, what was to be done? It was, in appearance and in rapidity of increase, like encephaloid, which may too, unlike scirrhus, be painless in its growth. But the absence of any sign of failing health, of implication of the skin, and of enlarged veins upon the surface, led me to think that it was not encephaloid,

but either a sarcomatous or a fibro-cystic tumour. Happily, examination after removal confirmed the negative part of this diagnosis; and the microscope has revealed the nature of the growth to be similar in structure to lymphatic gland-tissue; it was, in fact, a lymphoma. Now, as to what was to be done. Supposing the worst, and that the tumour was of a cancerous nature, it was advancing so rapidly that in a short time it would clearly be fatal. His general health appeared good; and the tumour was, if not freely movable, yet not fixed at its base. In the hope, then, that it might not be encephaloid, I determined to remove it. Even had it proved cancerous, the operation would have given some comfort at least. You saw the difficulties of the operation—the close proximity of the tumour to the axillary vessels, and the large arterial and venous trunks which ran into it. The man has not had a single bad symptom, and is now up. Favourably as all has gone on, we must not lose sight of the fact that there is a strong tendency to secondary deposits in lymphoma, as there is in many non-cancerous morbid growths; and, as in the previous case, we may find by-and-bye evidences of recurrence in loss of flesh and progressive weakness.

ABSTRACT OF A LECTURE

ON THE

OPERATION OF TRACHEOTOMY: WITH CASES.

By GEORGE BUCHANAN, A.M., M.D.,

Surgeon and Lecturer on Clinical Surgery, Glasgow Royal Infirmary; Professor of Anatomy in Anderson's University; etc.

GENTLEMEN,—I propose to call your attention to-day to the operation of tracheotomy, with special reference to its performance with the view of saving life in the later stages of croup and diphtheria. These two diseases are characterised by the effusion of a false membrane on the mucous surface of the air-passages; in croup, the lymph being deposited first in the trachea, with a tendency to spread down into the bronchi, sometimes up into the lower orifice of the larynx; in diphtheria, the deposit being seen first on the fauces, tonsils, and pharynx, with a tendency to spread down through the upper opening of the larynx into the trachea, and even into the bronchi. When in either disease the effusion of lymph is excessive, the respiration is impeded to such a degree that the patient dies of suffocation.

I shall not take up your time with any general remarks on the nature, causes, and symptoms of these affections, nor give you any indications for their treatment in the earlier stages; for, though I have very well defined ideas on these subjects, most of you are aware that both in teaching and practice I confine myself exclusively to surgical cases. In consequence, I have no opportunity of observing the effects of remedies, except such as are afforded by the reports of those medical men who request my assistance in the more advanced stage. But there is one point to which I beg most earnestly to call your attention—it is that, in both of these diseases, but more especially in diphtheria, and more manifestly when they occur as epidemics, they may exist in one of two types, the sthenic or asthenic. In the asthenic, the tendency is to cause death by exhaustion—failure of the vital powers; in the sthenic, by suffocation. You will hear it sometimes stated that, because diphtheria is a general disease—somewhat like scarlet fever—and the lymph effusion but the local manifestation of it, therefore it is unphilosophical to propose tracheotomy in such a case; but you will remember that this operation has never been suggested with any intention of cutting short the disease, nor ought it to be performed when there is great prostration. It is in the sthenic form alone that it is admissible. And what I would urge on you is this, when you find that your patient, whatever be the original disease—croup or diphtheria—is not improving by the treatment you have been adopting; when you find that the effusion is going on to produce suffocation; when the tendency is to death by apnoea more than by exhaustion, then you ought to step in and perform tracheotomy for the purpose of preventing immediate death, and so give longer time for the patient to live through the disease and ultimately throw it off. Nay, you will find, after a comparatively limited experience, that you will be able to recognise early in the progress of a case whether the tendency is to apnoea or exhaustion; and I would be inclined to urge my own experience as a reason for performing tracheotomy in the class of cases in which it will inevitably be required, before

the struggle for breath has exhausted the strength of the sufferer, so rendering the operation less successful than it might have been.

In short, let not the name of the disease deter you ; but, when you find a patient clearly progressing to death by suffocation, while the vital powers are otherwise vigorous, my maxim for you would be, open the windpipe and ward off the impending death, whatever be the ultimate result : you have done your duty and saved life, at least temporarily. I admit that it is sometimes a very nice point to decide, when to interfere and when to refrain, and especially to discover when the effusion has spread down into the bronchi or bronchial tubes, in which case the operation would be useless. Percussion of the chest and the sibilant *râles* discoverable by auscultation are valuable aids to diagnosis ; but there is one most characteristic sign which I find a sure and ready guide to distinguish between dyspnoea depending on pulmonary occlusion, whether congestive or bronchial, and that depending on tracheal obstruction—I allude to the observation of the respiratory movements. When the obstruction is in the larynx or trachea, the powerful attempts at respiration will be plainly visible, and their inefficacy will be evidenced by the drawing in of the costal cartilages and the intercostal spaces. When this is well marked and increasing, the pulse being moderately good, it is a proof of the vigour of the vital powers, and is a clear indication for tracheotomy.

The steps of the operation are very easily indicated, but very difficult in the performance. The great maxim is, “operate leisurely and without hurry”. The patient having been put under the influence of chloroform—a very great assistance in this operation—an incision is to be made about an inch and a half long from half an inch below the cricoid cartilage downwards. Layer after layer of the cellular tissue is to be divided till the trachea comes into view. This, which is easily stated, is a troublesome matter, owing to the perpetual movements of the trachea and the bulging into the wounds of veins, llular tissue, and in children the apices of the thymus gland, all of which must be held aside with retractors. Any vessel which bleeds must be tied ; and it must be a principle that the second stage of the operation is not to be undertaken till the white rings of the trachea are clearly seen at the bottom of the wound. A sharp hook is now to be fixed in the upper part of the trachea brought into view, and the knife plunged into it—the back of the knife being towards the larynx—and the incision made half an inch long. A pair of closed dressing forceps are now to be introduced into the slit and opened, on which there will be a violent struggle, then a forcible expiration expelling quantities of false membrane and viscid mucus ; and presently the patient will lie quiet, breathing tranquilly through the opening. The silver tube is now to be introduced, and the operation is completed. The only special precaution which I adopt in the after-treatment is to order the air in the apartment to be kept moist by steam from a kettle, or by some other means.

The following case illustrates these points very well.

William S., aged 7 years, when convalescing from scarlet fever, had an attack of tonsillitis. The palate and tonsils became covered with a white exudation, and the voice became hoarse. After a few days he improved so much that there was no anxiety about him, when on the 12th January there was considerable difficulty in breathing and a hoarse barking cough. The white patch was to be seen on the tonsil, evidently extending downwards. On the 13th he continued in the same state, but on the 14th the symptoms had increased in severity so that Dr. Pirie, the medical attendant, requested me to visit him in consultation. When we saw him, however, the dyspnoea had become less urgent, so that we thought that he had a hope of recovery without operation. On the 15th all the symptoms became aggravated, and when I saw him in the evening with Dr. Pirie, it was quite evident that the struggle for breath would soon wear him out. The pulse was fair ; he could swallow well ; but the fits of dyspnoea were so frequent and urgent that he was tossing about, gasping, and begging to be relieved. An examination of the chest showed most clearly that the obstruction was in the larynx or trachea, and that the effusion had not extended into the smaller bronchi. The muscles were acting very powerfully, so that at each attempt at inspiration the sternum, costal cartilages, and intercostal spaces, were violently pulled inwards. The effort to inspire was evidently very strong, but there was hardly any room for air to pass : a clear indication for opening the windpipe to admit the air.

The nature of the operation having been explained to the parents, they committed the child to our care to do what we thought best for it. The assistance of my friend Dr. Smart having been procured, I proceeded to perform tracheotomy precisely as before described, and with the same result. The child, who before was tossing about in an agony of dyspnoea, was soon breathing with perfect tranquillity through the tracheal silver tube.

I need not describe the progress of the case from day to day. Four or five of my students most kindly volunteered to be with the patient

for the first forty-eight hours, during which time the child was never left without skilled attendance, Dr. Pirie visiting two or three times a day. The result was most satisfactory. The tube was removed on the eighth day, and after that the child made a rapid recovery.

POSTSCRIPT.

As an appendix to the above abstract, I may state that I have now performed tracheotomy in thirty-nine cases ; of these thirteen recovered, or one out of every three operated on. As all those operated on were considered to be in a hopeless state, it may be concluded that thirteen lives were saved by the operation.

In the *Glasgow Medical Journal* I published details of my first twenty-six operations. I here append notes of the last thirteen.

CASE XXVII, with Dr. Gray, 30th Dec., 1865. Diphtheria ; aged 5. Result—death on the fifth day from extension of inflammation.

CASE XXVIII, with Dr. Coats, 20th April, 1866, aged 3. Chicken-bone impacted in glottis. Result—death from inflammation in bronchi.

CASE XXIX, with Dr. Tindal, 18th Jan., 1867. Diphtheria ; aged 7. Result—cure ; tube removed on fourth day.

CASE XXX, with Dr. R. Grieve, 31st Jan., 1867. Croup ; aged 3. Result—death on the third day.

CASE XXXI, with Dr. G. Miller, 27th Oct., 1867. Diphtheria ; aged 5. Result—cure ; tube removed on the seventh day.

CASE XXXII, with Dr. Paterson, Partick, 10th Dec., 1867. Diphtheria ; aged 2. Result—death in two days.

CASE XXXIII, with Drs. A. D. and McCall Anderson, 4th May, 1869. Croup ; aged 2½. Result—death on the second day.

CASE XXXIV, with Dr. Gray, 6th Dec., 1869. Diphtheria ; aged 5. Result—death on the sixth day.

CASE XXXV, with Dr. Smellie. Combination of croup and spasmodic croup ; boy aged 9 ; 15th March, 1870. Tube still in ; child goes into spasm on its removal.

CASE XXXVI, with Dr. Mather, 22nd March, 1870. Croup ; aged 4. Result—death ; extension of inflammation.

CASE XXXVII, with Dr. McMillan, 13th Nov., 1870. Diphtheria ; aged 8. Result—death from spreading of the disease downwards on the eighth day, after tube was removed.

CASE XXXVIII, with Dr. Pirie, 15th Jan., 1871. Diphtheria ; aged 8. Result—cured ; tube removed on the eighth day.

CASE XXXIX, with Dr. Ronald, 20th Jan., 1871. Diphtheria ; aged 7. Result—death on the third day.

GYNÆCOLOGICAL NOTES.

By ROBERT BARNES, M.D.,

Obstetric Physician, and Lecturer on Midwifery and Diseases of Women and Children, at St. Thomas's Hospital.

III.—IS IT RIGHT TO VACCINATE OR REVACCINATE PREGNANT WOMEN ?

THE question has frequently been put to me, Is it right to vaccinate pregnant women ? Some persons seem to entertain the apprehension that pregnant women incur special and serious risks under vaccination. To justify exceptional neglect of vaccination in their case, it ought to be shown, not only what this special risk is, but also that it is more serious than the risk incurred by the women themselves by taking small-pox, and thus of propagating the disease to others. The community as well as the pregnant woman must be considered.

To make out, then, a case for special exemption, it ought to be shown that the pregnant woman incurs a particular danger. Where is the evidence of this ? The following passage from Dr. Meigs's work on *Diseases of Females* (1848) has been cited to me as authoritative in this matter. “Do not,” says Dr. Meigs, “vaccinate women when pregnant. I have been the witness of dreadful distress from the operation. Eschew it, I entreat you.” It would be very desirable to have the cases justifying this very emphatic assertion recorded. I fear there is some confusion in the matter. Thus, asking for evidences of mischief, as of abortion, from vaccination, I have been told of abortion and serious illness following small-pox. I do not doubt that small-pox is a most serious accident to a pregnant woman. But does it not follow, *a fortiori*, that pregnant women should be protected against small-pox ?

My own experience has supplied me with many illustrations which warrant the following propositions.

1. Pregnant women living under epidemic or zymotic influences are more prone to take the prevalent morbid poison than others.

2. Having taken a morbid poison, they are less able to throw it off. Their excreting organs, charged with the double duty of purifying two organisms, are liable to break down under the additional burthen.

3. The morbid poison then pursues its course in a system which is less able to resist its injurious action. Abortion and a most dangerous form of puerperal fever are very likely to follow.

Against this certainly greater risk of taking small-pox, and certainly greater severity of the disease if taken, what, I ask again, is the special danger of vaccination or revaccination? The operation, we know, is not altogether free from danger in adults of either sex. Before resorting to it, it is wise to get the system into good condition. Do pregnant women run more risk than other adults? Probably they are at some disadvantage. But I believe that the special dread of abortion is exaggerated, if not altogether unfounded. The healthy ovum clings to a healthy uterus with wonderful tenacity. An ordinary illness, much less the slight febrile disturbance of vaccination, will not affect this relation. On the other hand, slighter causes may precipitate an abortion already imminent.

So far is vaccination from causing abortion, that cases are known in which the foetus has gone safely through the vaccine disease *in utero*, so that it has subsequently been proof against vaccination.

I think, then, we may conclude, in the absence of decisive evidence of special danger, that pregnant women are entitled to equal protection against small-pox with the rest of the community; and that vaccination or revaccination should be practised on pregnant women, in their own interest, as well as in that of the community of which they form a part.

The opportunity afforded by the present epidemic of settling this question by the evidence of facts on an extensive scale should not be lost. A Zymotic Committee will, I believe, be appointed by the Obstetrical Society. The relations of zymotics to pregnancy, including the influences of vaccination, is just one of those subjects which the collected experience of many practitioners can alone satisfactorily determine.

To show how urgently the particular question under discussion calls for determination, let me cite the contradictory views expressed to me by two of the most experienced and successful public vaccinators in London.

A. says: "I have never had the moral courage to try the effect, although I have very often been tempted to do so. There is a strong feeling in the minds of women against the practice; and the fear of an action in the Court of Queen's Bench has hitherto deterred me from trying the experiment. I have frequently asked the question you now put to me, but have never had a satisfactory answer."

B. says: "I have only vaccinated four pregnant women, and nothing unusual has occurred with either of them. I do without hesitation recommend it, and intend vaccinating all the pregnant women in the workhouse. I have at the present time two women in an advanced state of pregnancy in the infirmary, suffering from variola; and one convalescent from the disease, having gone through the semi-confluent form without aborting."

Is A. right? or is B. right?

CLINICAL RECORDS.

From the Practice of PROFESSOR ERICHSEN at University College Hospital.

II.—*Gum-elastic No. 4 Male Bougie removed from the Bladder of a pregnant Woman by Urethrotomy: Threatened Abortion: Cure.*

M. M., aged 21, was admitted December 15th, 1870, having been sent up by Mr. Swindell of Whetstone. The patient had been engaged as a housemaid up to one month before admission. She was in perfect health till about one month previously, when she commenced to have pain on passing urine, lasting a short time afterwards. The pain during micturition was of a pricking character, and after it she felt as if there were something more to come away. Lately, the urine had contained blood and matter. She passed it with considerable straining, and the pain remained the same. The pain was increased by movement. During the week before admission, she suffered from incontinence of urine, which escaped involuntarily every few minutes. She had occasionally passed fragments of grit. She said that she was quite regular in her periods up to two months before admission, since when she had seen nothing; but she was extremely reticent, and did not answer questions readily.

On admission, the patient was a fat anæmic girl. She was suffering from constant incontinence of urine, and the thighs and nates were slightly excoriated in consequence. Some of the urine which was collected was found to be alkaline, free from albumen, and depositing a considerable sediment composed of pus and triple phosphates. There was scarcely any blood. On December 16th, she passed a small gritty fragment, which was found to be composed entirely of phosphates.

Mr. Erichsen sounded her, under chloroform, and found a calculus. It gave a distinct click when struck with the sound. It seemed to be of considerable size, was evidently phosphatic, and could be felt with the finger through the anterior vaginal wall.

On December 21st, the patient being tied up in the lithotomy-position, Mr. Erichsen passed a full-sized male median lithotomy-staff, and opened the urethra at the vaginal aspect, dividing the under-surface for about one inch. A pair of small lithotomy-forceps were then passed into the bladder, and the foreign body was removed. On examination, it was found to be a No. 4 male gum-elastic bougie, coiled up, and coated with phosphates to the thickness of about one-sixteenth of an inch. The ivory head was not covered with any deposit, and had doubtless been the cause of the distinct click heard on sounding. The wound in the urethra was brought together with silver sutures, and a catheter tied in. The patient was then removed to bed, and an India-rubber tube attached to the catheter to carry off the urine.

The patient went on well till December 25th, when some hæmorrhage occurred from the vagina, which ceased after a slight loss of blood. This was repeated on the 26th and 27th, until the patient was much weakened by loss of blood. It was then found, on further examination, that she was in the fourth month of pregnancy, and that abortion was threatening. She was transferred to the care of Dr. Graily Hewitt, under whose treatment the progress of miscarriage was stayed; and she gradually recovered, leaving the hospital in about a month after the operation.

Mr. Erichsen stated that this case was extremely interesting in a medico-legal as well as in a surgical point of view. Here was an unmarried girl pregnant, with impending abortion, in whose bladder a male gum-elastic bougie was found. There could be no doubt in the minds of any conversant with the practices that were unfortunately notoriously rife in this country—though less so than in some others—that the bougie had been employed for the purpose of procuring abortion; that it had been used by an unskilled hand; that the urethral orifice had been mistaken for the os uteri; and that the instrument, having slipped in, had occasioned the symptoms of calculus for which she had been admitted. His suspicions as to the alleged calculus being, or having for a nucleus, a foreign body, had been aroused by the reticence of the girl; but he had thought, as is very common in such cases, that the foreign body, whatever it might be, had been introduced to gratify sensual feelings, rather than with a positively criminal intent. Stone in the bladder was so rare in young women, that, when a calculus mass was found, it was almost invariably found around some extraneous body, such as a hair-pin, a piece of pencil, etc., that had been accidentally slipped into the urethra. In this case, the mode of introduction was different; and there could be no doubt, from the nature of the foreign body and from the coexistence of pregnancy, as to the motives that had suggested its use. It had probably been in the bladder about two months, judging by the quantity of phosphates by which it was encrusted. The bougie, as usually happens, was coiled up into one mass; and the ivory handle, being free and uncoated, gave a clear and distinct click to the sound.

With respect to the operation, Mr. Erichsen performed urethrotomy instead of dilating the urethra, as he thought that, as the mass was rather large, the canal might be over-stretched, and incontinence would then result. The cut in the urethra was immediately closed by silver sutures.

CASE OF CIRRHOSIS OF THE LIVER: HÆMORRHAGE AND ASCITES: PARACENTESIS TWICE: TEMPORARY AMENDMENT FROM DIGITALIS: CLINICAL REMARKS.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.,
Physician to St. Mary's Hospital.

H. C., aged 34, was admitted July 11th, 1870. He was an emaciated, sallow-looking man, suffering from copious ascites, which, he stated, had not been preceded by any notable pain in the region of the liver. The last eight years he had been very temperate, but before that he took gin rather freely. Very soon after his admission, he had profuse hæmatemesis, and hæmorrhage *per rectum*. This ceased under the administration of lead. On July 16th, he was highly anæmic; pulse 105, weak; temperature 101.8. On the 29th, paracentesis was performed, and fourteen pints of fluid were drawn off. The night after the tapping, twenty minims of tincture of opium were given; and on the following day he was in fair case, and took his food well. Pulse 100, jerky. He was taking a drachm of liquor ferri muriatis with mixture of acetate of

ammonia four times a day. Some of the evacuated fluid, which had been received into a test-glass, had deposited a film of fibrine at the bottom. This film consisted almost solely of corpuscles lying close together, imbedded in a basis-substance. The corpuscles varied much in size: some were smaller than red corpuscles; the majority were extremely like those of pus, and, on adding acetic acid, composite nuclei were brought into view; some were much larger than pus-globules; all had a granular aspect. Aug. 6th. He brought up some blood two days previously; the medicine nauseated him. He was ordered ice, and fifteen minims of tincture of opium in water three times a day. Aug. 17th. The circumference of the abdomen was 42 inches. Paracentesis was performed again, and fourteen pints of fluid were evacuated. The circumference was now 39½ inches. There was less anasarca of the thighs, but the feet were still notably swollen. The superficial abdominal veins were still very large. The liver could be felt below the ribs, distinctly indurated. The opium was omitted, and he was ordered an ounce of infusion of digitalis and a drachm of spirit of nitrous ether three times a day; the medicine to be omitted every third day. On September 3rd, the circumference was 37½ inches. The pulse was regular, weak. The urine was very pale and copious. There was much less distension of the lower limbs. On the 7th, the pulse was 88, very weak. The mixture was omitted. On the 10th, the pulse was 110, fuller. The circumference of the abdomen was 35½ inches. The mixture was resumed. On September 14th, the abdomen measured 35 inches. The pulse was very weak and toneless. He was ordered to take half an ounce of the mixture once daily. On the 17th, he was semi-delirious and strange at night, probably from chloral, which he had been taking. Camphor and henbane were substituted, and the mixture was given twice daily. With this he slept better. By October 12th, the abdominal measurement was 33½ inches; the dulness indicating the amount of fluid was less extensive. The lower edge of the liver was felt about two-finger-breadths above the umbilicus, and its left extremity reached to about the nipple-line. The spleen was also notably enlarged, and formed a tumour in the left hypochondrium. He took food well. The pulse was regular and soft. On October 29th, the size of the abdomen was the same. The quantity of urine in twenty-four hours was, as he estimated it, about three pints. He was now ordered fifteen minims of belladonna and copaiba, and twenty minims of compound tincture of lavender in an ounce of infusion of quassia three times a day. With this, he passed (he thought) a good deal more urine; but the size of the abdomen remained the same. On November 5th, he left the hospital in pretty good case, but weak and thin. Soon afterwards he went for a month to Walton, and came back much improved. When last seen, however, his abdomen was again enlarging.

REMARKS.—That this was a very grave case of cirrhosis of the liver, there can be no doubt. The patient's life was at one time in serious danger from profuse hæmorrhage; and subsequently the dropsical fluid accumulated, even after removal, with great rapidity, so as to threaten speedy death by exhaustion. I confess I thought his condition hopeless; for, with such evidence of obstruction to the portal vein-current, it seemed impossible to accomplish anything by the administration of medicines in the usual way. The congested capillaries of the intestinal surface could not be expected to imbibe an occasional dose of fluid passing over their investing epithelium: and that this fluid could penetrate the villi and enter the lacteals in their interior, seemed almost as improbable. So much has this difficulty been felt, that Dr. Christison (I think) has recommended the application of the infusion of digitalis as a fomentation to the abdomen, in order to procure its absorption into the general circulation. I believe that the method has occasionally proved serviceable; but, if I remember aright, it was of no benefit in one instance where I employed it. Yet, all this difficulty notwithstanding, very much was accomplished by ordinary medication. The girth of the abdomen was diminished four inches below what it had been just after the last tapping; and, instead of the fluid accumulating in prodigious quantity in about twenty days, no notable recurrence of enlargement took place for four months—no medicine having been taken during the last four or five weeks of that time. This is certainly encouraging. One lesson, then, which I take from the history, is that, even where very grave organic disease exists, we are not too readily to throw down our arms and accept defeat. Perseverance may carry the day, as it often has "in our rough island story". A second lesson may be, that remedies, especially edge-tools like digitalis, require careful handling. You see that the drug was given at first in full doses, but with the precaution to omit it every third day. This method answered well for eighteen days; then the heart's action became depressed, and we had to forbear the remedy awhile. In three days it was resumed again, one small daily dose being given at first; afterwards, two such doses daily; and, under this medication, the abdomen shrank two

inches more. Remember, then, that the dosage of a remedy may be quite as important as its selection.

A remark may be made as to the sediment deposited from the ascitic effusion. It was essentially corpuscular fibrine; the corpuscles being, I suppose, white blood-cells and their developments, which had been pushed through the walls of the capillaries by the increased intravascular pressure. The resemblance of very many of the corpuscles to those of pus is noteworthy, and hints to us how we may have transitional states between passive mechanical effusions and so-called active, of which inflammation is the chief factor. Increased activity of formation of white corpuscles extruded from the vessels is perhaps the most important element of inflammation; and here we have some indications of its existence. Just in the same way, a sort of bronchial catarrh is apt to be set up when the pulmonary capillaries are engorged with blood in cases of insufficiency of the mitral valve.

Lastly, I may observe that the copaiba seemed to act very efficiently as a diuretic, and perhaps might have rendered as good or even better service than the digitalis, had it been employed earlier. In a recent case of Dr. Sieveking's, it was eminently useful.

NOTES OF A FATAL CASE OF TETANUS TREATED BY THE CALABAR BEAN.

By D. CAMPBELL BLACK, M.D., L.R.C.S. Edin., Glasgow.

SUFFERING as the science of medicine does periodically from the introduction of new drugs and their universal application, the recording of fatal cases under the influence of supposed specifics ought to be more the custom than obtains. In recording the following brief notes, I am not to be supposed as doing so with the view of throwing discredit upon the Calabar bean, but rather to encourage repeated trials of it, possibly in larger doses; and at least to indicate that general, and not specific treatment, ought to be relied upon in any given disease.

On the morning of September 29th, 1869, I was requested to visit J. R., an intelligent, somewhat precocious boy, aged 11 years, who had just sustained a severe accident to the right foot from a large slate or "flag" having fallen upon it while playing. A contused wound extended in an oblique direction from about the right malleolus to the ball of the great toe. The lips of the wound were wide apart. The wound having been carefully bathed, its lips were carefully placed in apposition by the introduction of about half a dozen wire sutures, and a cold-water dressing applied. With the exception of smart febrile symptoms for a day or two, there was nothing to call for particular attention till Friday, October 8th, when the patient complained of a slight stiffness about the jaws. The wound hitherto continued to look well; and, the sutures having given way, granulation was proceeding satisfactorily. The symptoms were not such as to call for special treatment, and accordingly a few general directions were given. On Saturday morning, the stiffness was more marked; and in the afternoon I was hurriedly sent for, in consequence of the patient having taken a severe fit, in every respect like an epileptic seizure. The nature of the case being now too manifest, my friend Dr. Morton was called in consultation. We resolved upon the application of linseed-meal poultices to the wound, the poultices being freely saturated with laudanum; and the internal administration of Calabar bean, as follows.

R. Ext. physostigmatis venenosi gr. iv; aquæ ʒj. M.

Twenty drops of the above to be given every hour. Thus one-sixth of a grain was administered at a time.

On the day following, the patient was much about the same. He had no return of such a violent fit as the first one till the fatal termination. At bedtime, fifteen minims of tincture of opium were administered, and wine and beef-tea as required.

Day by day, notwithstanding an unremitting perseverance in the bean, the administration of opium in increasing doses, and morphia suppositories at bedtime, with a careful general attendance to other symptoms, the patient continued in the same condition. The dose of the bean was gradually increased to thirty-two drops of the above hourly. Notwithstanding all this, the slightest excitement occasioned a decided paroxysm, though not nearly so severe as the first one. There was distinct opisthotonos. About the 13th, indications of gradually increasing weakness became apparent; little sleep was being obtained, and the fits were becoming more frequent; and on the 14th, sordes had collected in considerable quantity on the teeth. About nine o'clock of the same day, while he was drinking a little water, a violent fit occurred—so violent, indeed, that, to the patient's friends, death seemed imminent. From this, however, temporary recovery ensued; and about two o'clock on the morning of the 15th, death took place with comparative calmness, the patient retaining consciousness to the end.

. Altogether, about thirteen grains of the extract of the Calabar bean had been administered. It was selected by Dr. Morton, and pronounced by him pure.

Notwithstanding the fatal results of this and some other cases, I am disposed to think, from the experiments of Dr. Watson of this city, and others, that the physiological action of this agent is such as to place its employment in tetanus beyond the pale of empiricism.

AMPUTATION NEAR THE KNEE-JOINT: AND A CLINICAL HISTORY OF A CASE OF NEW GROWTH OF TIBIA.*

By W. A. ELLISTON, M.D.,

Surgeon to the East Suffolk and Ipswich Hospital.

A CASE is just leaving the Hospital, to which I had the pleasure of directing the attention of several members of the Association this morning, and which I think is worthy of some notice, as pointing out the great advantages of a stump formed after the method suggested by Mr. Carden of Worcester, in preference to the modes of amputation at or above the knee-joint. The operation in this case was performed by carrying a fairly deep incision from the left condyle of the femur downwards, for about two inches and a half, and then across the limb just beneath the patella, and upwards to a corresponding point of the inner condyle, carefully dissecting back the integument—thus forming a long anterior flap. The limb was then transfixed behind, and, by cutting almost directly outwards, a short posterior flap was formed; the bone was cleared, and the saw applied through the condyles just above the articular surfaces of the femur. The only points which, taking a retrospective view of the operation, seem to me to be of importance, are, to make the anterior flap of sufficient length to drop in a cap-like manner well over the bone, so that the cicatrix is not in the line of pressure, and at the same time to get the advantage of a short posterior flap, so as to lessen as far as possible the risk of sloughing of an over-long anterior flap; and to make the section of the femur sufficiently low to avoid wounding the medullary canal, and thus to lessen the danger of osteomyelitis. The advantages of this operation over the ordinary methods of amputation (by flap and circular, or by a combination of both) on the lower third of the femur, are, I think, obvious. I need only refer to the great length of the stump, the movements of which will be more under the control of the patient than a shorter one, owing to the proper muscles of the femur not being divided; the entire removal of the cicatrix from the line of pressure; and the advantage of securing as a flap the integument covering the knee and accustomed to bear the weight of the body, and destitute of important vessels and nerves. The operation through the knee-joint itself has been revived and practised by many distinguished surgeons; and, although in this case it was inadmissible, if it were proved that a stump with the condyles is better, it would be the duty of the surgeon to preserve them on all proper occasions; although if in its performance it be necessary, from the nature of the case, to take the flap from the calf of the leg, I am at a loss to understand its advantage.

I desire, also, to call your attention to a few clinical observations in connection with this very interesting case. The patient, a girl 17 years of age, was admitted on December 1st, 1869. The history of her case was, that she had slightly injured her left knee some time previously, and that she had lately suffered much pain in the swelling. The swelling (having the appearance of a small chronic abscess) was close to the head of the fibula, and there was an obscure sense of fluctuation. Constitutional remedies, counterirritants, and the like, were tried without any perceptible effect. About the end of January, an exploratory incision was made; it was thought that a small quantity of pus escaped. No connection, however, could be detected with the fibula (as had been anticipated), nor, indeed, with any denuded bone. Matters went on much the same until the end of February; when, upon introducing a probe into the wound, it was found that it could be easily passed into the head of the tibia, to a depth of three inches. Her general health had much deteriorated; she had much hectic fever, lost flesh, her appetite failed her, and she suffered from sickness and shiverings. On March 4th, after consultation with my colleagues, I decided to cut down upon the inner side of the head of the tibia, and ascertain if any necrosed bone could be detected. I had very little difficulty in gouging a hole into the cavity of the bone, and immediately a large quantity of pus escaped (quite three ounces); no dead loose bone could be felt, and the patient was returned to bed. She expressed herself as immensely relieved by the operation; she rapidly recovered her health and strength,

* Read before the East Anglian Branch.

and it seemed as if the case would terminate most favourably. Slowly but surely, however, a fungoid condition of the granulations of the original wound over the fibula sprang up, resisting all kinds of caustics. I removed a large portion with a ligature, and when this separated it could be seen that this was but a portion of a tumour having a deeper origin than the mere surface. This case seemed to me interesting in many respects; from its insidiousness before it became clear that the seat of the disease was in the tibia itself, rather than in the fibula; also, from the marked and immediate relief from the first operation; and, so far as I can discover, from the somewhat unique fact of a large accumulation of pus in association with a condition which we must regard as suspiciously suggestive of malignant tumour. The dried preparation of the bones is before you. You will perceive on the inner side the puncture which I made. Through an unfortunate omission, the tumour was not examined microscopically, and hence its exact pathology is uncertain; but little doubt was felt by those who had the opportunity of examining its appearance on the surface and in the cavity of the bone, that it was the medullary cancer (so-called at the present day), described by the late Sir W. Lawrence and others as the fungus hæmatodes.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

KING'S COLLEGE HOSPITAL.

POISONING BY A DRACHM OF HYDROCHLORIC ACID: TRACHEOTOMY: DEATH.

(Under the care of Dr. G. JOHNSON.)

ONE feature in cases of poisoning by hydrochloric acid, as contrasted with other mineral or vegetable acids, arises from the fact that in the concentrated form it is very volatile, and there seems little doubt that the gas passed into the lungs in the act of swallowing. It is not usual for any laryngeal symptoms to arise in cases where other acids are used, although they are not uncommon when ammonia is swallowed. All the caustic alkalies produce similar effects; but, in addition, ammonia, in consequence of being volatile, causes inflammation of the larynx and air-passages. Another interesting point in the following case was the rapidity with which inflammatory products were formed, for the bronchi were full of pus, and lymph was found in the pleura, although only about ten hours had elapsed from taking the acid.

A. E., a girl, aged 15, was admitted under Dr. Johnson on February 16th, 1871. From her history it seemed that, having had a quarrel with her parents, she took about a teaspoonful of hydrochloric acid at ten o'clock on the morning of her admission. Her father was a brass-worker, and therefore was accustomed to keep that acid; he thought that, from the amount left in the bottle, she could not have taken more than the above-mentioned quantity. Some warm water and salt was at once given her by her friends, with the effect of making her rather sick. When she came to the Hospital about an hour afterwards, she was just able to walk with support; her face was pale and the extremities rather cold. There were no stains of the acid round her mouth, but a few on her dress. The mucous membrane of the mouth and fauces was uniformly of a white or ash-grey colour. She complained of much thirst, but was not sick, nor had she any pain in the stomach or marked tenderness on pressure. She was at once put to bed, and a little milk was given by the mouth. In a short time she seemed to rally a little and to become warmer; her pulse was 84, and pretty full. In two or three hours she seemed to be worse, and to have much difficulty in breathing; moist râles could be heard all over the chest.

About 4 o'clock, tracheotomy was performed by Mr. Wood, but was not succeeded by much benefit. A laryngoscopic examination had previously shown that the epiglottis was swollen, white, and corroded; but not much of the glottis could be seen. The girl was then in a state of collapse; the face was pale, the lips rather livid, and the feet and hands cold. She was sensible, apparently, when spoken to, but did not seem to feel much pain. Death took place at 8 P.M., or about ten hours after taking the poison.

A *post mortem* examination was made by Dr. Kelly about twenty hours after death. The body was well nourished, and there were no external marks of injury. The mucous membrane of the mouth, fauces, pharynx, and œsophagus, was of an ash-grey colour, and the epithelial coat could be easily stripped off, leaving a red injected surface beneath. The stomach was distended, and contained undigested food mixed with a dark-brown grumous fluid; the mucous membrane was quite black,

but not destroyed; the colour was due to the intense injection of the vessels and the action of the acid upon the blood. There was no perforation of the stomach, and the cardiac end was the part most injured. There was no injury beyond the pylorus, and the rest of the intestines were quite healthy. On opening the thorax, about a pint of fluid was found in the left pleura, mixed with a few flakes of recent lymph. The mucous membrane of the larynx, trachea, and bronchi, was much injected, and lined with some soft purulent fluid. The small bronchi were so full that air could have only entered with some difficulty. The lungs were otherwise healthy. The uterus was about three inches in length, and contained a small ovum. The left ovary contained a recent corpus luteum of large size. All the other organs were healthy.

ANEURISM OF THE AXILLARY ARTERY: LIGATURE OF THE SUBCLAVIAN.

(Under the care of Sir W. FERGUSSON.)

MR. H. J. ROPE, the House-Surgeon, has kindly furnished us with the notes of the following case.

George M., a sailor, aged 53, was admitted into King's College Hospital, under the care of Sir W. Fergusson, on January 18th, 1871, suffering from an aneurism of the right axillary artery.

On September 13th, 1870, as he was trying to reach something by stretching his arm through the meshes of a rope-ladder, he fancied he felt something give way. He took but little notice of this at the time. The next day, as he was ascending the rope-ladder, his foot slipped, and his arm, being above one of the cross-trees, was brought down upon it with great force, nearly the whole weight of the body being supported by the arm. Later on in the day he noticed, for the first time, that there was a pulsating swelling, high up on the inner side of the right arm, almost in the axilla; the swelling was about as large as a walnut. During the next fortnight he lost nearly the whole power of movement over the hand and fore-arm. Flexion and extension at the elbow became very weak; the power of extending the wrist and fingers was wholly lost, but slight power of flexion remained. Pronation and supination were impaired, though not wholly lost. The man experienced a dull aching pain in the ends of his fingers, but none in the seat of the aneurism. There was loss of sensation in the little finger and the inner side of the ring finger. On admission, the aneurism could be seen and felt on the inner side of the right arm. It projected about an inch and a half below the lower border of the pectoralis major, this part alone being visible, but strong pulsation could be felt through the muscle as high as to within half an inch of the clavicle. The tumour could not be felt above the clavicle. The pulse at the wrist was all but imperceptible. Pressure on the subclavian stopped the pulsation in the tumour, but it was difficult to compress on account of the man keeping his shoulder raised.

February 7th. There was little or no change in the aneurism; if anything, it was rather larger and more painful.

Operation.—February 8th. The patient having been placed fully under the influence of chloroform, Sir William Fergusson made an incision about four inches long about half an inch above the clavicle, and parallel with that bone through the skin, superficial fascia, and platysma. The external jugular vein then became apparent, and was drawn aside; by careful dissection, the omo-hyoid muscle was then exposed, loosened from its attachments, and drawn upwards and outwards by a blunt hook. At this time there was a little venous hæmorrhage, which somewhat obscured the structures. After carefully dissecting a little deeper, chiefly with the handle of the scalpel, the margin of the anterior scalenus muscle was exposed, and then about half an inch of the artery. Sir W. Fergusson now passed the needle from below upwards, and, after trying its effect upon the aneurism, tightened the ligature upon the vessel. The wound was closed by sutures and dressed with dry lint. The pulsation in the aneurism was completely stopped. Not an ounce of blood was lost during the operation. On account of the great depth of the vessel, it was found necessary to enlarge the original incision twice during the operation, in a crucial manner.

March 1st. Up to the present time, the patient has not had a bad symptom; the tumour has become hard and more solid; the radial pulse is not yet perceptible; the ligature has not yet come away, but the wound is in a great part healed.

FEMORAL ANEURISM: LIGATURE OF THE EXTERNAL ILIAC.

(Under the care of Mr. HENRY SMITH.)

EMMA S., aged 32, married, was admitted into King's College Hospital under Mr. Smith on January 24th. The patient had worked very hard as a laundress since 11 years of age. She had been in the habit of resting one end of a stick, with which she removed the clothes from the

boiler, on her right groin. Six months ago she noticed a swelling about the size of a marble in this spot. She did not observe any pulsation in it till four months later, when it had attained the size of a hen's egg. On admission, there was a large pulsating tumour in the right groin, extending about an inch and a half above Poupart's ligament, and three or four inches below it. She refused to undergo any operation, and was discharged, at her own request, on February 12th. Four days later she returned, the tumour having increased in size and become much more painful and inconvenient. On February 18th she was placed under chloroform, and Mr. Smith made the usual incision, divided the muscles and fasciæ, and turned aside the peritoneum and exposed the artery, which was found perfectly healthy. A ligature was applied, which completely stopped the pulsation. The wound was closed by sutures, dressed with dry lint, kept in position by a spica bandage, and the patient sent back to the ward.

Mr. Henry Smith, in addressing the pupils, stated that the case was almost exactly like the one they had seen him operate on some little time since, and where the aneurism also involved the common femoral and external iliac arteries, and was of such large size that he had so planned his incisions as to tie the common iliac, if needful. In the present instance the tumour had increased very much, and extended so high up above Poupart's ligament as to induce him to believe that he should have to tie the artery high up, and thus he had planned his external incision accordingly. The operation itself was very simple. He, however, must warn them against believing that it was always so; for the tying of the external iliac might be attended with great difficulties, in consequence of the artery being surrounded by large glands or other complications. He had seen two instances where, from this cause, great difficulties were encountered in completing the operation. It was also possible, if the surgeon were not very careful, to turn up the artery along with the peritoneum. This mistake, however, would be avoided by very gentle manipulation.

February 28th. This patient has gone on uninterruptedly well since the operation.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

MORBUS COXÆ: CONVULSIONS: PARALYSIS OF OCULAR NERVES: ACUTE TUBERCULOSIS: DEATH IN FOURTEEN DAYS.

(Under the care of Mr. WARREN TAY.)

THE following case is of interest as furnishing an instance of acute tuberculosis occurring in connexion with a purulent collection in one hip-joint. It is also worthy of note that the pain in the hip and the apparent deep fluctuation entirely disappeared on the accession of the urgent constitutional symptoms. In connexion with the cerebral symptoms, one would have expected to find evidences of neuritis of the optic nerves, but none such could be detected. The doubtful history obtained from the father, of discharge from one ear, did not seem, after death, to have any connexion with the tuberculosis.

C. G., aged 3, was admitted into hospital on November 12th, 1869, for disease of the right hip-joint. His father said that he had had a slight injury to the hip about twelve months before, and had complained of pain in the knee and hip for about six months.

On admission, he was apparently suffering from incipient disease of the joint, and there was some swelling about the great trochanter, which communicated a doubtful feeling of fluctuation. A tonic was administered, and the child was kept in bed. The hip appeared to improve, till (on November 23rd) he vomited his dinner. The hip seemed more swollen, and a poultice was ordered. The next day the vomiting was repeated. No further symptoms were noticed, however, for a week, when his cheeks were observed to be flushed, and his nights became restless. He frequently screamed.

On December 3rd, at 8 A.M., he had a "fit". The nurse said he "struggled, and his wrists were bent right up". His eyes "looked to his nose, and he was not conscious". He became quite blue. The fit lasted about two minutes and a half; he then screamed violently, and after awhile went to sleep quietly. He was very restless during the night, and at 2 A.M. he had a second slight fit. At 11 A.M. his temperature was 99.3 deg., his pulse not rapid, but variable. At 8 P.M. he was lying on his back, screaming occasionally as if in pain. His right upper eyelid drooped, and he was not seen to lift it, but was said to have done so during the day a little. On opening the eye, the pupil was found widely dilated and fixed. The globe was not seen to move inwards, but did so occasionally outwards, and then returned to the middle line, and also moved slightly upwards and downwards. The conjunctiva was sensitive. The left globe moved well inwards, but in no other direction. The lids were not affected, nor the pupil. He could shut both eyes well. He could hear well, and was quite sensible, putting out his

tongue when told, grasping a halfpenny put near his hand, and calling it "money". He tried to look always where desired, but his head always moved instead of his eyes, except that he looked towards his nose with the left eye. The pain in the right hip had quite disappeared. He moved it freely; the swelling was not perceptible, and he could stand on it when out of bed. The pulse varied from 90 to 120, and his temperature was the same as in the morning (99.3 deg.)

December 5th, 8 P.M. His pulse was 136; his cheeks were more flushed. There was no evidence that he could see; the paralysis remained the same.

December 6th, 6 P.M. His pulse was 144, his temperature 100 deg. A decided weakness of the left arm was noticed; he could not hold the halfpenny, and never moved the limb voluntarily.

December 8th. He had four fits in the course of the morning, but was said to be sensible during them.

December 9th, 7 P.M. He seemed able to see large objects more definitely than previously. He took a halfpenny in the left hand after a little trouble, and held it, though feebly; he afterwards passed it over to the other hand. He complained of pain in the hip again, and kept it flexed, crying out when it was moved. His pulse was 132, and very irregular.

December 10th. The weakness of the left arm was again more marked. The father told the nurse that the lad had been subject to a discharge from the right ear since the age of eight months. He had always been out of sorts whenever the discharge stopped. There had been the merest trace only of discharge since admission.

December 11th. He occasionally moved his right hand to rub his lips. He never moved the left hand voluntarily; but now and then there was a sort of convulsive movement of it, and now and then of the right also. He moved his head when either conjunctiva was touched, but apparently more quickly as regards the right eye than the left. On December 13th he died.

At each visit the eyes were carefully examined, but no changes indicating neuritis could be detected. He had had no fits since the 3rd December.

At the *post mortem* examination, the lungs were found to be extensively adherent, and both of them were studded with the small sago grains of the so-called miliary tubercle. At the base of the brain the arachnoid was also dotted all over with miliary tubercle, and the nerves were matted together, but not more on one side than the other, and all the nerves appeared uniformly affected. There was no disease of the petrous bone. There was no disease within the abdomen. On examining the hip-joint, there was no abscess external to the joint; but, on laying open the capsule, the joint was found filled with a cheesy, curdy material, probably inspissated pus. The head of the bone was eaten away, the ligamentum teres destroyed, and on the anterior aspect of the neck of the bone just external to the capsule, in a small cavity, was a fragment of necrosed bone of the size of a pea; this was quite loose. The specimen is preserved in the London Hospital Museum. A very similar one was obtained from a young boy who died of pyæmia, empyema, etc., under Mr. Hutchinson's care, after a blow on the hip.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

CASE OF ANEURISM OF THE AORTA: ADHESION OF THE HEART AND PERICARDIUM: TEMPORARY IMPROVEMENT UNDER THE USE OF IODIDE OF POTASSIUM.

(Under the care of Dr. BRADBURY.)

R. M., aged 58, married, tailor, but formerly in the navy, was admitted into Griffith Ward on August 3rd, 1870, having been ill for three months. The patient was somewhat emaciated, and his complexion was slightly sallow. He had never suffered from rheumatism, gout, syphilis, or any other serious disease, neither had he been intemperate. There was no arcus senilis, and no history of any injury. On admission, his only complaint was of pain in the right side of the chest, in the right shoulder, and down the right arm, which prevented him from sleeping at night. On stripping him, however, the right side of the chest, in the infraclavicular region, was found to be more prominent than the corresponding portion of the chest on the left side; and to the right of the sternum, in the second intercostal space, there was a distinct pulsation. The apex of the heart beat between the sixth and seventh ribs. The sounds of the heart were normal, being unaccompanied with any *bruit*; and over the course of the aorta no morbid sound could be heard. On one occasion, however, a friction-sound was heard at the base of the heart to the left of the sternum. There was dulness on percussion over the part of the chest where the pulsation was visible. The pulse at each wrist was quite regular, and there was no perceptible difference between the two. There was no inequality in

the pupils of the eye. The patient was at times harassed by a cough, but there was no expectoration, nor any complaint of paroxysms of dyspnoea. There had been some little difficulty in swallowing, but there was no history of hæmoptysis or hæmatemesis. The man's appetite was very good, but his bowels were usually costive.

He was ordered to lie in bed, to have full diet, without beer, and a liniment, consisting of equal parts of linimentum opii et belladonnæ, was applied to the painful part of the chest and shoulder. His bowels were also regulated by an aperient pill. At the end of a week there was no diminution of the pain; a bag containing ice was ordered to be kept constantly applied to the pulsating part, and with decided relief. On the third of September, at a time when Dr. Bradbury was taking his holiday, the man again became worse, and Dr. Latham prescribed for him a pill, containing two grains of acetate of lead and half a grain of opium to be taken three times a day, which gave relief for a time, but which had to be discontinued, owing to the constipation and colic which it induced. On September 21st, the pain was so severe as to prevent the man from getting any sleep, and Dr. Bradbury prescribed twenty grains of hydrate of chloral at bedtime, but without any amelioration of the symptom. The man became dissatisfied at his slow progress, and wished to leave the hospital. Before allowing him to do this, however, Dr. Bradbury thought it advisable to have a consultation with his colleagues, with a view of obtaining, if thought expedient, their sanction to the trial of electro-puncture, which has met with much success in the hands of an Italian physician, Dr. Decristoforis (*vide Practitioner* for August 1870, p. 99). The result of the consultation was, that one of his colleagues thought it by no means conclusive that the case was one of aneurism, but probably an intrathoracic tumour; his other colleague, however, so far concurred in his diagnosis as to regard the case as one of dilatation of the aorta, but hesitated to recommend electro-puncture, on the ground that there might be no sac, but merely an uniform dilatation. Under these circumstances, Dr. Bradbury concluded, on October 6th, to try iodide of potassium, a drug which has met with considerable success in the hands of various physicians in cases of aortic aneurism (*vide BRITISH MEDICAL JOURNAL*, 19th and 26th July, 1862; January 24th, 1863; and *Edinburgh Medical Journal*, July 1868). The salt was administered in five-grain doses thrice daily, and the relief from it was very remarkable; indeed, so decided was the diminution in the pain and pulsation, and the subsidence of the swelling, that one of Dr. Bradbury's colleagues again questioned the accuracy of his diagnosis, and he began to wonder whether, after all, his colleague might not be right and he wrong. It was not found necessary to increase the dose of the iodide, and the man felt so much better that he left the hospital on November 15th. Dr. Bradbury wished him to be an out-patient, but he did not think this necessary. Nothing more was heard of the patient till February 7th, 1871, when Dr. Bradbury was kindly asked by Mr. Knowles, who had seen the man once or twice, to assist him at the *post mortem* examination. Previously to making the autopsy, Dr. Bradbury learned that the man became worse a week before Christmas, complaining, as before, of pain in the right side of the chest and down the right arm. During the last two or three days of his life, he had pain also in the left side of his chest, and during the last twenty-four hours there was pain on this side only. The tumour on the right side had increased to about the size of an orange. During the last fortnight, he continually had slight epistaxis, and five minutes before his death he brought up a pint of blood. For the last month he had had severe paroxysms of dyspnoea, and also some dysphagia. Dr. Bradbury was unable to ascertain what changes, if any, had taken place in the character of the pulse at the two wrists, in the pupils, and in the sounds audible over the heart and great vessels.

AUTOPSY, twenty-three hours after death.—On opening the thorax, there was seen pressing against the second rib, on the right side, at a point a little to the right of the junction of the rib with the cartilage, an aneurismal dilatation of the aorta, of about the size of half an orange. The sac was adherent to the rib, which had been considerably wasted by the pressure of the aneurism. On more careful examination, it was found that the sac, which was nearly filled with concentric layers of fibrin, was connected with the convexity of the arch of the aorta, at the junction of the ascending and transverse portions, and that it did not involve the arteria innominata. On attempting to open the bag of the pericardium, it was found to be universally adherent to the heart, but more closely on the anterior surface. The pericardium was considerably thickened. The walls of the heart were flabby, especially on the right side, easily tearing on being pressed by the fingers. The heart itself was enlarged. Besides the sac already described, there was also a considerable dilatation of the whole concavity of the arch, encroaching upon its anterior surface, and being separated from the other sac by a portion of vessel which was not dilated, producing the appearance

of a constriction between the two sacs. This second sac extended downwards towards the base of the heart, overlapping the pulmonary artery, and resting upon the base of the left ventricle. In the left sac the fibrin was less in quantity, and confined to its lower half, the upper part being free. The extreme left of this sac pressed upon the left bronchus, considerably diminishing its calibre. The right sac pressed upon the superior vena cava, which passed down behind it. The aorta, for some distance into the descending portion, was atheromatous. Clots of blood were found in the œsophagus, into which the left sac of the aneurism had burst, for an opening was found in the œsophagus, through which a probe could be passed into the sac.

REMARKS.—The above case is instructive in showing (1) that extensive atheromatous disease may exist in a subject in whom there is no antecedent history of gout, rheumatism, syphilis, or intemperance; (2) the difficulty of making a positive diagnosis of an aneurism of the ascending aorta and the arch in its earlier stages; and (3) the great improvement which sometimes take place during the administration of iodide of potassium.

MEATH HOSPITAL, DUBLIN.

CASE OF ANEURISM OF THE AORTA SIMULATING PERMANENT PATENCY OF THE AORTIC VALVES: WITH AUTOPSY.

(Under the care of Dr. STOKES.)

THE following case is condensed from the notes by Mr. William Reed Murphy, Clinical Clerk.

James O'Hara, aged 31, by occupation an itinerant fiddler, was admitted on January 18th, 1871. He gave the following history. He had been for the last ten or twelve years a man of most intemperate habits. Six years ago, he was treated for what he called heart-disease, but was, he said, cured, and remained perfectly well until last Christmas (about three weeks prior to his admission), when he drank heavily for many days in succession, and was much exposed to cold and wet. His breathing then became very short, and his feet and abdomen swelled rapidly. He put himself under medical care, and was treated by mercury so as to produce profuse salivation. Becoming much worse, he sought admission into Hospital. His state then was as follows. His face was œdematous and blue from venous congestion; the veins upon the forehead and the external jugulars stood out prominently. The body generally was very anasarous, the lower extremities and scrotum being greatly swollen, and the peritoneum distended with fluid. There was almost entire suppression of urine. His dyspnoea was extreme, amounting to partial orthopnoea, and he was greatly inclined to sleep heavily. Upon examination, there was found semi-dulness over the back of both lungs, with large crepitus, evidently due to pulmonary œdema. The area of cardiac dulness was increased; the heart was enlarged, its impulse diffused, the apex-beat being felt below and to the left of the nipple. On laying the hand over the præcordium, a very distinct fremitus was at once perceived at the base of the heart, but it could not be felt at the apex. *This fremitus immediately followed the impulse of the heart.* Upon auscultation, three murmurs were heard; two at the base, and one at the apex. The two at the base were, first, a loud rough systolic *bruit de râpe*; and, secondly, a badly marked, indistinct, diastolic murmur. On tracing downwards from the base, these murmurs became gradually less and less distinct; but at the apex there was another murmur of a different character, being soft and blowing, and systolic in time. The basic murmurs were heard, but for a very short distance, along the course of the aorta, and could not be heard in the carotid or subclavian arteries. There was no interscapular *bruit*. There was some visible pulsation of the arteries, but it was not very evident, except in the carotids. The collapsing pulse was certainly present, though not well marked. Under the use of diuretics, stimulants, and free dry cupping over the lungs, he rapidly improved; the secretion of urine became very copious, the anasarca diminished until it almost entirely disappeared; his breathing became normal, and in about six days he was able to leave his bed. During this time, the *diastolic basic bruit* had become more and more distinct;

and in proportion as it did so, the feeling of collapse in the pulse became less and less marked, until it was at last imperceptible. He continued well for about a week, until one wet evening, when he insisted upon going home, and could not be prevailed upon to remain in Hospital. He succeeded, however, only in reaching the gate, when he had a kind of syncopal attack, and had to be brought back. He became very much worse during the night. The urine again became suppressed, the body generally anasarous, and the dyspnoea extreme. All diuretics failed for a few days, during which he became rapidly worse, until the inhalation of the oil of juniper was tried; it was given in doses of forty minims twice a day, and acupuncture of the feet was practised. Under this treatment he improved somewhat, and remained better for about eight days, when the secretion of urine began again to fail; the anasarca increased immensely; the lungs became more and more œdematous; and he died on the 17th of February. His face for some hours previous to death had become quite livid. About ten days prior to his death, it was suddenly found one morning that the fremitus had entirely disappeared; that the basic systolic *bruit* had become soft and of a blowing character; and that there were now two murmurs heard at the apex; one systolic in time, rough, and with a peculiar metallic ring; the other diastolic in time, and of a softer character. This change continued for three days, when the former condition was again suddenly restored.

The *Necropsy* was made eight hours after death. Rigor mortis had not commenced at this time. The kidneys were quite healthy, but congested; the liver was small and contracted, and of a dark colour. The lungs were greatly congested and very œdematous. The pericardium contained about four ounces of fluid. The heart was enlarged, weighing seventeen ounces. The right side of the heart was greatly distended with dark fluid blood; its cavities were healthy, the ventricle perhaps a little dilated. The left ventricle was considerably hypertrophied and firmly contracted. The left auriculo-ventricular opening was of normal size, and the two curtains of the mitral valve were perfectly healthy. The aortic opening was also of normal size; the semilunar valves were competent, though somewhat thickened. The aorta, immediately above the ventricle, was much dilated and atheromatous. From its anterior wall sprang a true aneurism, a little larger than a hen's egg; this aneurism came forwards, pushing aside the pulmonary artery and right auricular appendix. It communicated on its posterior wall with the cavity of the *right* ventricle, by a rounded smooth opening, through which a goose-quill could be easily passed. The regurgitation of the blood through this opening into the cavity of the right ventricle, was probably the cause of the fremitus felt at the base of the heart, *following* the impulse. There was no coagulum in the aneurism, the sac of which lay within the pericardium.

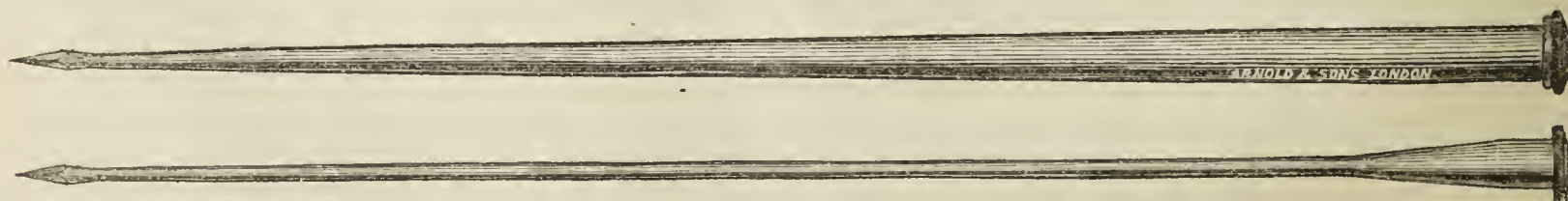
REPORTS AND ANALYSES

IN

MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

IMPROVED BLOWPIPE.

AN improved form of blowpipe for dissecting purposes has been devised by Mr. H. A. A. Nicholls, and is manufactured by Messrs. Arnold and Sons of West Smithfield. The object in view is to obviate the blocking up of the end of the instrument, which is liable to occur in that in ordinary use. The pipe is fitted with a stilette having a trocar-point, which removes obstructing material, and by means of which, for instance, the blowpipe may be introduced through the abdominal wall for the purpose of inflating the abdomen. The instrument—if not used for dissection—may also be employed as an ordinary trocar and cannula.



MR. H. A. A. NICHOLLS' IMPROVED BLOWPIPE.

CHALYBEATE LEMONADE.

MESSRS. A. MAY-DAVIS AND CO., Esher Street, Westminster, have introduced a really admirable chalybeate lemonade, which will be likely to be largely used in private practice. The one objection to chalybeates is the strong flavour of "flat-irons." Not only is this entirely overcome in the very agreeable lemonade which they have produced, but the beverage is most enticingly pleasant. Each bottle is warranted to contain five grains of citrate of iron; and of the chalybeate saline lemonade each bottle contains also twenty grains of citrate of potash. Medicine is here not merely disguised, but transformed. We think many a prescriber will be glad to know of a preparation which is an undoubted boon to patients. The lemonade sells at 4s. a dozen, or 3s. 6d. in larger quantities. This gives an average price of 3½d. to 4d. a bottle. An ordinary six-ounce mixture, with citrate of iron and syrup of orange-peel, costs about 1s. 8d., or 3½d. a dose. The money balance, therefore, is not much in favour of the mixture, and the point of flavour is largely in favour of the lemonade.

GRANT'S MAIDSTONE MORELLA CHERRY BRANDY.

UNDER the title of "Cherry Restorative", this liqueur has been introduced into use in some of the large London hospitals. Mr. Whitfield, the Resident Medical Officer of St. Thomas's Hospital, and Dr. Jackson, Resident Medical Officer of the London Hospital, speak of it in very high terms, as possessing "considerable advantage where other astringents and stimulants have failed, particularly in irritable conditions of the alimentary canal, or great debility and exhaustion after long protracted disease, when it is difficult for the stomach to retain food or medicine;" and as being not too stimulating. We do not know whether it has occurred to many professional men to test the use of this certainly highly agreeable tonic and stimulant. We are disposed to think that they would be very well satisfied with this addition to their therapeutical resources. There is only one misgiving in our mind: it is almost too agreeable a medicine.

GAUZE BANDAGES FOR STUMPS.—"In dressing stumps, compound fractures, and burrowing abscesses," says Dr. Washburn, "I often found it difficult (as, I presume, has every surgeon) to prevent, by the ordinary bandage and compress, accumulations of pus, without at the same time running the risk of closing the orifices; or, when attempting to avoid this, I would generally have the wound and a certain portion of the adjacent flesh bulging disagreeably through the openings left in the dressing to allow of drainage. To avoid this, I was induced to make use of bandages of *mosquito-netting*, which I found I could apply directly over a wound without interfering with its discharge. I prepare the bandage by cutting new mosquito-netting into long strips of from three to four inches in width, and rolling it upon small strips of wood, so that it can be handled as an ordinary roller-bandage. It seemed to me, upon trial, that the mosquito-net bandage accomplished much more rapidly the closing of stumps, etc., than the methods I had previously employed, and was, besides, neat in appearance. As the majority of stumps heal by granulation, they may be nicely compressed and supported by bandages of this material. Where the material is not strong enough, it may be used double, or the roller passed twice over the same place. After the bandage has been applied, a cloth dipped in water or spread with cerate may be laid over the openings, to exclude the air and prevent the pus drying, and so closing the wounds. I have no doubt but that a better material than mosquito-netting could be found or manufactured for the purpose; but, in the absence of a better, it answers exceedingly well." (*New York Medical Gazette*, vol. vii, No. 4.)—Professor Roser of Marburg says, in the *Archiv für Klinische Chirurgie*, vol. xii, p. 716, that for several years he has been in the habit of using gauze bandages in cases of amputation, and has found them very convenient. The bandage is dipped in water, or, still better, in a watery or oily solution of phenylate of soda, and is applied to the stump in such way as may be thought fit. It is well not to be sparing of the quantity used, as a protective covering is afforded by it. A hole or thin place may be left at the lower part. Dr. Roser says that this kind of bandage is likely to be useful when the patient requires removal; he has found the short transport from the operating-theatre to the ward rendered easier by it. The gauze bandage can easily be split up or penetrated by scissors; it is easily moistened by a solution of phenylic acid; it allows the secretions from the wound to escape. In 1868 he had to perform amputation of both upper arms in a man who had been injured by a threshing-machine. The patient was able to sit up at the end of the second week, the bandage affording a light and at the same time firm support. He has also used it successfully in cases of high amputation of the thigh, of Pirogoff's amputation of the foot, etc. The parts were brought together partly by sutures, partly by means of the bandage.

WE shall feel indebted to correspondents who will forward us local papers containing reports of proceedings of Boards of Guardians and Boards of Health, Medical Appointments and Trials, Hospital and Society Meetings, important Inquests, or other matters of medical interest.

BRITISH MEDICAL JOURNAL.

SATURDAY, MARCH 4TH, 1871.

MEDICAL REFORM AND THE BRITISH MEDICAL ASSOCIATION.

THE Medical Reform Committee of the British Medical Association have, in the short period which has elapsed since their interview with Mr. Forster, as the representative of the Government in the absence of Lord De Grey, lost no time and spared no pains in the fulfilment of the duty entrusted to them by the British Medical Association at its annual meeting. The official intimation of the Government which was then made known—that it would not undertake any measure of medical legislation this session, and the distinct intimation from Mr. Forster that, while the Government adhered to its propositions of last year, it would give its best consideration to the question of direct representation, in favour of which, he admitted, there was much to be said—seemed to leave it incumbent upon the Committee to seek the best means of securing for the profession that the subject of medical reform should be introduced in the legislature, and in such a way as should afford a probability of the proposed measure being law. At the general meeting at Newcastle, at the special meeting of the Association so largely attended in London, in the meetings of the branches, and by the profession generally, the Government Bill of last year, as it came down from the Lords, was generally approved, with the exception of the omission of the eighteenth clause, which it was declared ought to be reinstated; and with the cardinal exception that it omitted to make any provision for direct representation of the profession in the General Medical Council. The main features of medical reform which the Association and the profession have endorsed, are:—the one portal, compulsory registration, improved examinations, effective punishment of illegal impostors, and the direct representation of the profession in the Medical Council.

The Medical Reform Committee have been in active communication with many most experienced and able members of the Legislature, and especially with the Right Hon. T. E. Headlam, whose great services to, and historic connexion with, the cause of medical reform, no less than his excellent parliamentary position, designate him as the fittest champion of medical reform on this occasion. It is, of course, known to all persons of experience, at the outset, that private members encounter the greatest difficulties in carrying through large measures of this kind; and although it is possible to get measures of almost any character introduced into the House by gentlemen who are sufficiently content to put their names on the back of a bill, however certain of ignominious rejection—it is, on the other hand, impossible to conduct serious parliamentary efforts after this fashion. To ensure for any measure a possibility of success, its framers must shape it so that it may obtain a valued endorsement in the first instance, and a satisfactory support and intelligent backing in its further stages. The Committee have therefore been in earnest conference with

their parliamentary advisers, to ascertain to what extent it would be advisable to go in carrying out the combinations which have been suggested in order to give effect to the expressed wish of the profession that, with the other features of medical reform which last year received universal assent, should be combined that of direct representation. It is, of course, easy for three or four gentlemen in a back room, to sit down and anonymously draft a document which they declare to express the wishes of the profession; it matters nothing to them how impracticable it may be, or how utterly hopeless an array of hostilities it would provoke. A Committee of known and responsible persons, acting upon a public commission, and conferring with experienced members of the Legislature, must face the facts, and so act as, while carrying out the principles entrusted to them, not to sacrifice every prospect of success, or, indeed, of commencing the real effort to succeed, to questions of secondary importance, or matters of detail which may be left to subsequent arrangement. The programme of the Association is broad, clear, and liberal, as to direct representation. There are certain details connected with the numbers of the Council which the Committee would wish to see carried out; and which in any case they will struggle to obtain. What they have declared to be *sine quâ non*, in accordance with the instructions which they have received from the Association, are:—one portal, compulsory registration, a satisfactory penal clause, and direct representation of the profession in the Council to the extent of one-fourth. These are all included in the scheme of the Bill which the Right Hon. T. E. Headlam has given notice, and of which we shall at an early date be able to lay further details before our readers.

VACCINATION ARRANGEMENTS.

THE present epidemic of small-pox challenges the attention of the Government, the public, and the profession—especially the members of the Poor-law Medical Service. A Select Committee of the House of Commons is appointed to inquire into the working of the Compulsory Vaccination Act. To what cause is the present epidemic due? Certainly not to the defective power of vaccination, but chiefly to the system and the way in which it is worked. Want of organisation, division of authority, and antagonism of interests, are the fruitful causes of failure here as in various departments of life. From the central offices of the Privy Council and Poor-law Board downwards, through the several boards of guardians, vestries, and asylum boards, and ramifying even into the various offices of vaccinator, registrar, and prosecutor, each and all act without unity of purpose.

The Privy Council have advised guardians in the metropolis, in the face of an epidemic of small-pox, to dismiss their several district vaccinators and to appoint only one. This recommendation was carried out in St. Marylebone. Five district medical officers were deprived of their vaccination appointments; and one vaccinator was appointed for a parish with a population of 163,000 and a birth-rate of 5,426. In St. Pancras, a parish twenty miles in circumference, and containing a population of 250,000, the same course was recommended. This arrangement, however, was here not approved of. The President of the Poor-law Board was communicated with, and, in his reply, he stated that he was not aware of any proposed alteration in the existing arrangements for vaccination, and requested to be informed of the nature and extent of the proposed change.

The interpretation of the compulsory clauses of the Vaccination Act, and the advice of the two boards thereon, do not at all agree. At Yarmouth, the magistrates refused to convict a man for not having his child vaccinated on the ground that vaccination might injure its health. The Poor-law Board have actually written to the guardians to say that this is an exceptional case, and have recommended the Board of Guardians

to be very careful how they proceed with prosecutions, lest they should raise prejudice. The common excuse of those opposed to vaccination is the mistaken fear that it may injure the health of the child. If the above be the real opinion of the Poor-law Board, there is an end to compulsory vaccination. Disunion and opposite directions from headquarters naturally produce the greatest confusion among subordinates, and the most distressing results to the community. How can we expect that boards of guardians and vestries should carry out the Vaccination Act under such an anarchy of central sanitary authority. In spite of an enormously expensive machinery of inspection and gratuities, and through the want of organisation and the consolidation of the offices of registrar, vaccinator, and Poor-law medical officer, failure is stamped on the vaccination-department of this country. The ludicrous ignorance of the lay Poor-law inspectors on the subject of vaccination is such, that in their recent efforts to argue with the Board, they have often been utterly routed, and until lately they never attempted to persuade the guardians to carry out the law.

The first essential to full protection of the nation is, that every child should be vaccinated and every adult revaccinated within certain well ascertained limits. The first step to secure this *desideratum* is to ensure the compulsory registration of every child; and this registration should be in the hands of the vaccinators. This may be obtained by following the system which has worked so admirably in Ireland by the amalgamation of the offices of registrar, vaccinator, and dispensary-physician. The results in Ireland appear to be in exact opposition to those observed in England. While London is suffering from an epidemic the most severe that has been known for the past thirty years, Dublin has been saved the scourge. While Ireland is almost fully protected by efficient vaccination, England has villages in which small-pox has been endemic for three years. The Poor-law Commission of Ireland, in their Annual Report, point out how much, in their opinion, the success of the Compulsory Vaccination Act was due to the combination of the two offices of registrar of births and public vaccinator in the person of the medical officer of each dispensary district. In the few cases in which the public vaccinator is not the registrar of births, difficulty and uncertainty ensue. The Commissioners are anxious that every dispensary medical officer hereafter appointed should undertake to assume and retain the registrarship of births and deaths; and they will take steps accordingly under their general power of approval of appointments when made by the dispensary committees.

The recent alteration in the arrangements in the metropolis, resulting in the dismissal of Poor-law medical vaccinators and the appointment of one vaccinator to a district twenty miles in circumference and with a population of 250,000, is the scheme recommended by the Privy Council to effectually stamp out an epidemic of small-pox. What was the plan adopted in Ireland under a similar circumstance? The Report of the Irish Commission says: "The very satisfactory state of the vaccination of the poor at which we have arrived has not been attained at a single step, nor without discouraging fluctuations. By the Medical Charities Act of 1851, gratuitous vaccination was for the first time provided for the whole population in every district in the country; the thirteenth section of the Act imposing on the medical officer of each dispensary district the duty of vaccinating all persons brought or applying to them for that purpose. Owing to apathy and want of faith in vaccination, and the distance of the dispensaries and the residences of the medical officers from a very large portion of the population, the average number of vaccinations (if we except the year ending September 30, 1856), under the Medical Charities Act alone, was somewhat below 50,000. The exceptionally high number of vaccinations in 1856 was caused by an epidemic of small-pox which prevailed over all Ireland, and induced parents to bring their children for vaccination in greatly increased numbers. An important advance was made under Lord Naas's Act of 1856, by which a fee of £1 was awarded to the dispensary medical officer for every twenty cases of successful vaccination, and the Dispensary Committee of Management were required to divide their districts into two or more subdistricts

with a vaccination station in each, thus bringing the benefit of vaccination within easy reach of the poor everywhere. The effect of this enactment was to produce an average number of vaccinations, from 1859 to 1863, more than double the previous average. The last, and by far the most important, step towards the very satisfactory condition of vaccination in Ireland was made by the enactment of Sir Robert Peel's Compulsory Vaccination Act of 1863. This Act took effect on Jan. 1st, 1864; and in the first nine months of its operation, together with the last quarter of 1863, 191,810 had been vaccinated, that is, 85,300 above the number of the year before; of these, no fewer than 166,456 were persons not coming under the compulsory provisions of this Act, owing to a misapprehension that the compulsion applied to all persons, whether born before or after the 1st Jan. 1864. The number of vaccinations belonging to this class has, as we anticipated, diminished in succeeding years so as to have fallen to 12,813 in 1868; while, on the other hand, the infant vaccinations have uniformly increased from 97,160 in 1865 to 118,613 in 1868."

From the annual report of the Registrar-General of Births and of the Poor-law Commissioners, it appears that the total number of children born in Ireland in 1869 was 145,912; and of this number over 125,672 were vaccinated by the Poor-law medical officers, leaving but 20,000 children unaccounted for, many of whom were vaccinated by private practitioners, and many died. Dr. Lyons, in a lecture on the small-pox panic delivered in Dublin, testified to the full and efficient manner in which vaccination has been carried out in Ireland by the Poor-law medical officers; and he believes that, in consequence, the country will be free from any serious invasion of the disease, "that, even if the disease should come, it is not likely to spread very widely, or to produce a very large mortality, or to leave behind it in the survivors much disfiguring effect."

The recent alterations in the vaccination arrangements in the metropolis are supposed to offer the following advantages.

1. By having large districts, to secure a large number of cases to select lymph from and ensure arm-to-arm vaccination.
2. In large towns, to secure a large stock of lymph in order to supply more sparsely populated districts.
3. To have fewer vaccine stations to inspect.

The difficulties to be overcome by the above arrangements are—

1. The difficulty in inducing poor people to leave their work in order to attend a station on a particular day and hour at a distance from their homes. This was found to be a practical obstacle in Ireland, and by direction of the Irish Commissioner was obviated by not insisting on stational vaccination.

2. The appointment of one vaccinator for a parish of 150,000 or more inhabitants removes the facilities for domiciliary vaccination and revaccination in times of epidemic.

3. The deprivation of Poor-law Medical Officers of the office of vaccinators is a hardship to them, and is not calculated to afford equal facilities for universal vaccination, revaccination, and the stamping out of small-pox.

4. The Poor-law medical officers possess the earliest knowledge of the existence of small-pox in their respective districts, and could immediately vaccinate or revaccinate, as might be deemed necessary. If vaccination is to arrest an epidemic of small-pox, the Poor-law medical officers have it in their power to do it. It is not fair to expect them to add to their duties, for which they receive a very small and inadequate stipend, the duty of vaccinating gratuitously. Where the vaccinator is the medical officer, he receives a small fee for vaccination or revaccination of those who are liable to small-pox, and he has opportunities of doing this which no other man can possibly have. His local and personal knowledge is of the highest importance in overcoming the ignorant and popular prejudice existing against vaccination.

5. The question of selected lymph and continuous arm-to-arm vaccination is not altogether dependent on numbers; quite as much depends on the skill and arrangements of the vaccinator. In the city of Dublin there are thirteen vaccine stations; the vaccinators

attend twice a week; there is not a case of small-pox in the district, and an eminent dispensary medical officer writes: "With regard to the supposed difficulty of obtaining lymph, I may say that any person may be vaccinated at any of the dispensary stations, and that it rarely occurs that a plentiful supply of lymph cannot always and most obligingly be obtained there from any of my brethren."

Small-pox might be stamped out if the offices of vaccinator, registrar, and Poor-law officer were united in the same person, and if Boards of Guardians prosecuted recalcitrants. Where Boards neglect to prosecute after receiving notice of defaulters from their officers, it ought to be competent and imperative on the health-officer to take up the prosecution, and mulct the district in the expenses. There is little doubt that, if a consolidated system were brought into operation, and the officers fairly remunerated, there would be no further necessity for building gigantic small-pox hospitals.

ELIZABETH GARRETT-ANDERSON, M.D., has, since her marriage, taken her seat at the Metropolitan School Board unchallenged.

A SECOND anonymous donation of £1000 has been announced in aid of the funds of the Lock Hospital; and a like donation to the West London Hospital.

WE understand that the announcement made by a contemporary that Mr. Arnott is a candidate for the vacant Assistant-Surgeoncy to St. Thomas's Hospital, is incorrect.

DR. GEE will to-day (Friday) commence his Gulstonian Lectures, on the Heat of the Body, at the Royal College of Physicians. The lectures will be published in this JOURNAL.

WE believe that, at the recent examination for assistant-surgeons in the navy, four candidates failed to pass. The candidates who passed examination for the navy will, it is reported, go to Netley for further training.

A MEETING of the Social Science Association will be held on Monday next, March 6th, at eight o'clock, when a paper on "Legislative Measures for Preventing the Adulteration of Food and Drink", by Dr. Letheby, Medical Officer of Health for the City, will be read and discussed.

TO-NIGHT (Friday) Mr. Fairlie Clarke will read his paper on the Medical Aspects of Pauperism at the Metropolitan Counties Branch, Charing Cross Hotel, 8 P.M. The subject is one of considerable importance in State Medicine, and we hope there will be a good attendance to discuss it.

WE called attention lately to the scandalous neglect of the South Shields guardians in carrying out the vaccination laws, and their *nonchalance* and selfishness when the first cases of small-pox were recorded in their district. This district is now suffering from an intensely severe epidemic of small-pox, for which the inhabitants have to thank the authorities.

DR. BURROWS is succeeded by Mr. Curling as President of the Royal Medical and Chirurgical Society. Dr. Burrows has recognised qualifications for the office which he has filled so well. Mr. Curling is, we think, not less highly qualified; and the Society may be congratulated on their new list of officers. Dr. A. P. Stewart, whose long services to the Society as Librarian deserved a grateful recognition, has been elected Vice-President.

THE NAVAL AND MILITARY SCHOOL AT NETLEY.

THE changes at Netley to meet the requirements of the naval medical officers who are henceforth to be trained there, with their colleagues in the army, will not be very extensive. A Professor of Naval Hygiene will be appointed, but he is not expected to be appointed for the ensuing session. Dr. MacDonald, R.N., F.R.S., is named as the most probable recipient of the appointment, and, we believe, correctly; but there are other highly qualified and eminent officers whose names have been mentioned.

WE understand that the next meeting of the Hunterian Society at the London Institution, Finsbury Circus, on the 8th instant (at eight o'clock), will be devoted to a general discussion on the subject of Small-pox and Vaccination. Members of the profession interested in the subject are invited to attend.

DR. H. CHARLTON BASTIAN will read a paper on "The mode of origin of Bacteria, and on the bearings of this question upon the Science of Medicine", at the next meeting of the West Kent Medico-Chirurgical Society, to be held at the Royal Kent Dispensary, Greenwich Road, on Friday evening next, March 10th, at 8 P.M. The attendance of medical men and others interested in the subject of spontaneous generation is invited.

HOSPITAL OUT-PATIENT ADMINISTRATION.

A MEETING of the Committee appointed to inquire into Hospital Out-patient Administration, will be held at the Hospital for Women, Soho Square, on Monday evening, March 6th, at eight o'clock, to receive the final report.

THE ROYAL MEDICAL AND CHIRURGICAL PROCEEDINGS.

THE Royal Medical and Chirurgical Society has, we think, decided wisely in pausing before it resolved to abolish the publication of its *Proceedings*. Properly managed, the *Proceedings* should certainly not be without value, for the record of short papers, of papers not published in full, and of President's addresses. They should, in fact, fulfil the functions which the *Proceedings* of the Royal Society fulfil for that Society. Mr. Brodhurst's letter of last week in our JOURNAL, referring to an unpublished paper which appeared in the *Proceedings* but not in the *Transactions*, is an example of the historical value which the *Proceedings* acquire under certain circumstances.

THE CLINICAL SOCIETY.

AT the last meeting of the Society, considerable interest was raised by the President's remarks on the subject of the diagnosis of syphilis and other diseases by the sense of smell, a subject to which he had paid some attention, and which, he believed, opened up a field for much future inquiry. Numerous medical writers have casually touched on this interesting subject; and it may be interesting to note that, so long as thirty years ago, Dr. Stokes of Dublin called attention to the valuable aid which he believed the sense of smell would be found to afford in the diagnosis of disease—in fact, he expressed the opinion that the nose might, from the mere odour of the surface of the body, be able to detect the difference between pneumonia and bronchitis. The subject is one of much interest, and will, no doubt, at some early date receive the attention of scientific physicians.

NAVAL MEDICAL AFFAIRS.

DR. F. J. BROWN's pamphlet on Naval Medical Reform appears in a second and amended edition. Already something has been gained since the publication of the first edition. The number of good-service pensions has been somewhat increased; and we hope that the further claims which Dr. Brown puts forward for his late colleagues, our brethren in the navy, will receive prompt satisfaction. The principal change in these claims is, that it is now requested that, after twenty-five years of active service, surgeons shall retire with the rank of deputy inspector-general. This only restores the original state of things. Since the promulgation of the new scheme of promotion of 1870, several surgeons in the navy have retired after twenty-five years' active service without the honorary rank of deputy inspector-general. Only last week two army medical officers retired, and both received this honorary rank. It was an omission not to have asked for it before. The other changes in the claims are very slight, and equally commend themselves to the common sense of those who will take the trouble to look into the matter at issue. A just request is preferred that the head of the department shall be brought up to the level of the sister service; and it is asked that similar dignities should be gra-

ciously awarded. It is proposed that the tenure of the office should be quinquennial, not triennial. It is quite a mistake to suppose, though we have seen it stated, that the proposed scales of pay and retirement show in every case a falling off from former scales. The increase is soberly calculated and moderately restrained, but this is the surest course. In no case is there any diminution suggested.

THE POOR-LAW BOARD ON SMALL-POX.

THE Sunderland Board of Guardians had, up to the commencement of the month, failed not only to take steps to carry out the law by enforcing vaccination where it had been omitted, but had failed even to obtain the lists upon which they were to take action. They were reprimanded by Mr. Hedley, the Poor-law inspector; but really the Poor-law inspectors ought to receive some memorandum on the subject to enable them to talk rationally and convincingly on the subject. Mr. Hedley, who is not a medical man, cannot perhaps be expected to know the facts sufficiently; but, as it is part of his duty to exercise moral suasion on the guardians, he should be properly instructed in the facts; and for this purpose we suggest to the Poor-law Board that it should issue a brief memorandum demonstrating the benefits of vaccination, and refuting the common errors on the subject which pervade boards of guardians. Mr. Hedley's chief argument appears to have been, that one does not now see so many people "pitted" as used to be seen thirty years ago. This is very true, but not very forcible.

THE MEDICAL ARRANGEMENTS AT THE BRIGHTON REVIEW.

As the Easter Monday Review approaches, volunteer surgeons are naturally anxious to know whether the War Office intends to take any steps to make the medical arrangements on the occasion resemble somewhat more the substance of an organisation than has yet been the case. Hitherto the inquiries of the Senior Volunteer Medical Officer of the district have met with little encouragement at Pall Mall: they have either been unnoticed, or orders have come down at so late a time as to render it impossible to obtain proper supplies in time from the principal medical officer in the district. We presume that Staff-Surgeon Cordy Burrows, the popular surgeon to the Brighton Artillery Brigade, will be appointed surgeon in charge, a position which he has filled with much energy and acceptability to the volunteers on several former occasions. Should Mr. Burrows be appointed, everything will, no doubt, be done on his part to render the arrangements as efficient as possible. We understand that Mr. Burrows intends this year to offer the same hospitable reception as last year to the volunteer medical officers, and entertain them to breakfast on the morning of the review.

THE HISTORY AND FUTURE OF MEDICAL REFORM.

ON another page we present a brief history of medical reform, showing the phases through which it has passed during the last thirty years, and recalling the history of the great part which the British Medical Association has played—one equally honourable to the Association and beneficial to the profession and the public. In preparing that summary, we have received the aid of some of the older members of the Association who were associated in the struggle and identified with the triumph. It refers to the remarkable triumph which Mr. Headlam secured with the aid of the British Medical Association in 1857, which proved to be the turning-point of medical reform, when, in spite of factious opposition on the part of the managers of the same medical journal who are now endeavouring to create a fictitious semblance of hostile feeling to the Association scheme, the second reading was obtained by a majority of 225 to 78, and the success of a beneficial measure of reform was secured. This is of happy omen for the present occasion. The Association is faithful to the same principles now as then, and aims only at the crowning of its work. The following extract, for which we are indebted to Dr. Waters, from a leader in the *Morning Post*, commenting upon the debate on Mr. Headlam's Bill at the second reading, aptly recalls to mind how thoroughly it was then understood that the Medical

Council ought to be composed of representatives of the profession at large; the difficulty was that there was as yet no Register, and therefore no facilities for defining the constituency.

"The Select Committee were in favour of the Council being chiefly composed of the representatives of the medical profession; but the question was, how were they to be chosen? Pending the settlement of that question, it was deemed wiser to vest the nomination in the Crown, taking care that the Council should be responsible to public opinion through its chief having a seat in Parliament. We hold medical representation to be a good and a proper element to introduce into the Council, as soon as it can be obtained; but it must be real representation. We also hold that the public, as well as the medical profession, ought to be represented in the Council."

The Register of medical practitioners now defines the constituency; this difficulty no longer exists therefore. The Association is true to the original understanding and to the principles of medical reform, in requiring that direct representation of the profession should no longer be omitted from any large measure of medical reform.

THE BROMPTON HOSPITAL.

DR. J. WICKHAM LEGGE and Dr. Frederick T. Roberts are candidates for the appointment of Assistant-Physician to the Brompton Hospital, which becomes vacant in consequence of the resignation of Dr. J. Burdon Sanderson.

THE WESTMINSTER HOSPITAL.

MR. HILLMAN has, we understand, resigned the office of Surgeon to the Westminster Hospital. Mr. Francis Mason, the Senior Assistant-Surgeon, will now become full Surgeon. For the vacant appointment of Assistant-Surgeon, Mr. Richard Davy, the present Surgical Registrar, is a candidate, and will probably receive the support of the governors.

THE LONDON HOSPITAL.

WE hear that the members of the staff of the London Hospital have arranged to hold monthly meetings amongst themselves, for the purpose of utilising as much as possible the vast amount of material which is to be found at all times in the wards of that hospital. Cases or facts of interest which may have occurred during the month will be thus more or less systematically brought before the notice of every member of the staff, and increased facilities will be afforded by mutual aid in carrying out observations in the wards. Should the staff decide to recommence their annual reports, these meetings will go far to render future volumes even more valuable than their predecessors.

SOCIETY OF ARTS.

THE third course of Cantor Lectures at the Society of Arts for the session will be delivered by Dr. Spencer Cobbold, F.R.S., and will treat of "Our Food-producing Ruminants, and on the Parasites which reside in them." The course will commence on Monday, April 17th, and will be continued on subsequent Monday evenings till completed. These lectures are open to members, who have also the privilege of admitting two friends to each lecture.

ST. THOMAS'S HOSPITAL.

ON the unanimous recommendation of the Medical Council of St. Thomas's Hospital and Schools, the Grand Committee have this week unanimously elected Dr. Leibreich Ophthalmic Lecturer at that institution. They have also concurred in resolving to propose him as Ophthalmic Surgeon at the General Court of Governors on the 9th instant. In this appointment, they have indicated principles which are of the first importance to the success of a great hospital and school, and have reflected honour on the profession in this country. The appointment is one evidently based upon a pure regard to the pre-eminent services to science and practical clinical ability of their new colleague; and they have honourably disregarded the small parochial considerations which could impede such a decision. It has been publicly suggested that, if it were once known that a foreign surgeon—of no matter what eminence, and under no matter what circumstances—could be accepted

as a member of the staff of a London hospital, we should be immediately flooded by a rush of foreign aspirants of sufficient eminence and consideration to give them paramount claims. If it were likely that our metropolitan appointments could indeed attract the most eminent teachers from all parts of the world, and give us the choice in our schools of the very flower of the whole intellect and experience of Europe, we do not know that such a circumstance could fairly be considered as an unmitigated misfortune, although no doubt it might be so regarded by some interested persons. But such a case is wholly supposititious and absurd, as the present circumstances are wholly exceptional. The circumstances which, at the close of a terrible war, bring amongst us a colleague of the highest eminence, driven by enduring animosities from a capital in which he had won the first place in science and in practice, are such as are not likely often to recur, and certainly do not justify the always pitiful cry of protection for native talent.

KING'S COLLEGE HOSPITAL.

THE thirty-second annual meeting of Governors was this week held at the Hospital; Mr. E. Moore, Q.C., Vice-President, occupying the chair. The report, read by Mr. R. W. Waldron, the Secretary, stated that in the year 1870 the hospital relieved 1,597 in- and 35,045 out-patients, whilst 635 cases of midwifery were attended at their own homes. The out-patients represented distinct cases, and the great majority attended on numerous occasions before they were finally relieved. The receipts for the year from subscriptions were £2,085; from donations, £3,935; from legacies, £644; and from other sources, £2,191; in all, £8,855, as compared with £12,828 in 1869. The decrease was due to a cause which had largely affected all metropolitan charities; but it was hoped it would not long interfere with the supplies required to meet the continual and urgent needs at home.

HOSPITAL SUNDAY IN LIVERPOOL.

THE sum of £4,500 which was realised by collection on Hospital Sunday in Liverpool, is to be distributed in the following proportions:—Royal Infirmary, £1,440; Northern Hospital, £720; Southern Hospital, £630; Dispensaries, £495; District Nursing Society, £405; Ladies' Charity and Lying-in-Hospital, £270; Infirmary for Children, £225; Eye and Ear Infirmary, £135; Homœopathic Dispensary, £90; Consumption and Chest-Diseases Hospital, £22: 10; Cancer Hospital, £22: 10; Stanley Hospital, £22: 10; Dental Hospital, £11: 5; Dispensary for Skin-Diseases, £11: 5.

THE MIDDLESEX HOSPITAL.

THE annual general meeting of this charity was held this week at the Hospital; General Turner in the chair. During the last year 2,120 in-patients had been admitted, and 22,443 out-patients had been relieved. The annual report regretted the disparity between the annual subscriptions and the necessary yearly outlay. During 1870 the subscriptions had amounted to £2,371: 7: 10, being an increase of £59: 16: 6 on the previous year; while the outlay was £17,658: 3: 6, a decrease on last year of £1,167: 3: 2. A sale of stock was the consequence of this state of things, and the publicity of this sale in the newspapers elicited a considerable response. The Rev. Sir E. Repps Jodrell not only gave the munificent donation of £1,000, but doubled his subscription, when he read of this sale in the papers. Since the commencement of the year, "D.T.S.," the anonymous benefactor of many charities, had presented a third donation to this institution of £1,000. The nursing in the hospital had been most efficiently conducted during the last year, notwithstanding a reduction of £152: 12: 1 under the head of cost for "extra nurses." The report concluded by congratulating the governors on the satisfactory manner in which every department of the hospital was carried on, but additional annual subscriptions were urgently required. The report was adopted, and the Marquis of Cholmondeley elected a vice-president of the hospital. A vote of thanks to the Chairman terminated the proceedings.

ROYAL COLLEGE OF SURGEONS.

AT a meeting of the Council yesterday, the 2nd instant, a letter was read from Mr. Solly stating that, although his health was much improved, he felt that he would be unable to take part in the ensuing examinations, and therefore resigned his seat in the Court, retaining that in the Council. Mr. Solly was elected on the Council in 1856, and on the Court of Examiners in 1867.

THE EPIDEMIOLOGICAL SOCIETY AND SMALL-POX.

SMALL-POX will form the subject of discussion at the meeting of the Epidemiological Society on Wednesday next. Dr. Seaton, President of the Society, will comment on the present epidemic; and Dr. Grieve will produce an analysis of eight hundred cases observed in the Small-pox Hospital at Hampstead during the present epidemic. The attendance of all who take a special interest in the subject is invited.

THE CONJOINT EXAMINING BOARD..

AT the meeting of the Council of the Royal College of Surgeons on Thursday last, specially summoned to consider the new conjoint board scheme, the same was, on the motion of Mr. John Simon, referred back to the subcommittee for further consideration, on the ground that it was not so comprehensive as that of last year, or as the original commission of the subcommittee warranted. This we have already been at pains to point out; and we think that the profession will consider that the Council of the College of Surgeons has done itself honour in adhering to its wish for a larger scheme, which should provide not merely a convenient conjoint license for general practice, but an uniform minimum test on the part of the English examining boards, which should be an essential preliminary to all forms of practice. We heartily trust that the College of Physicians will show an equally liberal consideration of professional and public requirements in its further dealings with the scheme; and that the Universities will be invited and consent to join in what may be made a great measure of practical reform.

PROSECUTIONS UNDER THE VACCINATION ACT.

AT a Petty Sessions, held at Tavistock on March 1st, William Buckingham was prosecuted for not complying with the provisions of the Vaccination Act. The information was laid by Mr. Richard Sleman, the public vaccinator of the Tavistock District of the Tavistock Union. In it were alleged two offences, viz. :—1, not taking the child upon the same day in the following week for inspection; 2, not permitting matter to be taken according to the 17th Section of the Vaccination Act. The offences having been admitted, the prosecutor requested the Bench to deal leniently in the case, as no proceedings had been taken at Tavistock under the Vaccination Act for many years. The Bench, having duly considered the recommendation, inflicted a small fine, and stated that in future persons violating the law would be dealt with differently. The Rev. J. H. Morshead, J.P. (Chairman of the Tavistock Board of Guardians), thanked the prosecutor for bringing the case before the Bench; and he hoped that the other medical officers would follow the example.

SCOTLAND.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

WE understand that a *conversazione* is arranged to be held in the Faculty Hall on the 24th of the present month. A similar entertainment was given three years ago, and we presume that the success which was manifest on this occasion has induced the Fellows to repeat the experiment.

FEVER AND SMALL-POX IN GLASGOW.

THE following are the numbers reported at the beginning of the present week. There are 768 cases of fever, inclusive of typhus and relapsing fever, and of these 697 are in hospital. Of the latter, 457 are in the fever-hospitals belonging to the Corporation, and 120 in the Infirmary, the rest being in parochial hospitals. The proportion of cases

of typhus and relapsing fever in the City Fever Hospital and the Infirmary is noted as 73 of the former and 504 of the latter. There are 149 cases of small-pox reported in addition, and of these 121 are in the City Fever Hospital, 13 in the Infirmary, and 15 at home. On comparing these numbers with those given a fortnight ago, it will be seen that, while the cases of typhus and relapsing fever are reduced by 116, those of small-pox are increased by 59. In connexion with the increase of small-pox, it is to be noted that the authorities have resolved to establish four vaccinating stations in the city, where vaccination or revaccination will be performed gratis.

IRELAND.

THE Dublin Poor-law guardians are adopting the practice of sending the drugs and medicines supplied for the use of the in-door paupers to a chemist for analysis. It has been discovered that certain samples forwarded for the purpose were of an adulterated or very inferior quality.

ROYAL COLLEGE OF SURGEONS OF IRELAND.

TWO gentlemen, who have several times sought for the lower rank of Councillor without success, now seek the Vice-Presidency. It is surely desirable that some standing and experience on the Council should be required for so distinguished an office.

ARMY MEDICAL EXAMINATION.

THE success of the following Irish candidates has given much satisfaction. The place obtained is stated after each :—McCracken, 3rd; Irving, 4th; Cleary, 6th; Molloy, 9th; Fawcett, 10th; W. Joynt, 13th; Moylan, 14th; Tobin, 16th; McNamara, 17th; Robinson, 19th; Charlton, 20th; Martin, 21st; Joynt, 23rd; Palmer, 25th; Finlay, 26th; Sullivan, 31st; Ward, 35th.

THE CONNEXION BETWEEN CERTAIN DEFECTIVE SANITARY CONDITIONS AND DISEASE.

IN a paper read before the Surgical Society of Ireland, Dr. Charles F. Moore points out the difficulties attending investigations into the causes of a given case of disease, though it is a well established fact that certain conditions favour the development of zymotic and other disorders. Less frequent respiration, followed by permanent amendment, occurred on improving the ventilation of the bedroom of a child sick with a gastric febrile attack. Dr. Leyden's recent experiments show that the increased excretion of carbonic acid aids the solution of the case just mentioned, and justifies experience on scientific grounds. Dr. Moore alluded to the injurious effects of contamination of the air of dwelling-houses, factories, etc., by imperfect arrangements in the use of firing, gas, etc.; and gave cases where *scamping* in the construction of sewers produced serious illness, mentioning many forms of imperfect drainage to which grave results owe their origin. Typhus in a fatal form occurred in a house saturated with sewage-matters. In another instance, gastric fever, scrofulous and bronchial affections, haunted a house almost similarly circumstanced. Overcrowding, deficient ventilation, want of cleanliness, and close proximity to a rag-store, are the leading features of a house in Dublin with nearly one hundred inhabitants, that acts as a focus of disease, in which seven children have died in less than as many months. An important case, similar in some respects to one that was related before the Chemical Section of the Glasgow Philosophical Society some time since, and resembling another mentioned by Mr. S. J. Barber, is recorded from Dr. Moore's practice, in which corrosion of the lead trap of a water-closet was due to the action of carbonic acid, generated by decomposing organic matter, according to Mr. C. R. C. Tichborne's opinion, who corroborated Dr. Moore's analysis of the injured lead. Inhalation of sewer-gases, as generally experienced, produces disease in different forms, according to the condition of the sufferer as to age, sex, and strength; and also varies with the climate, locality, season of the year, etc.

THE ASSOCIATION AND MEDICAL REFORM.

THE present conjuncture appears peculiarly opportune for giving a summary of the action of the British Medical Association in connection with Medical Reform. The Association is now in the thirty-ninth year of its existence. In its second year, the address on medical Reform, which was delivered at the annual meeting, was printed and freely circulated amongst the profession, as well as amongst the members of the Association. A general interest in Medical Reform was thus aroused, and the attention of the legislature attracted to it. In 1840, Mr. Hawes brought in his Medical Bill, in which it was proposed to elect all the members of the Council by the votes of the medical practitioners. Direct representation was also recognised by the Government to a certain extent in the Bill of August 1844, and in those of March and of May 1845; though in Sir James Graham's Bill of July 28th of the same year it was altogether abandoned, and a "Council of Health" proposed, all the members of which were to be nominated by Her Majesty, with the advice of the Privy Council. Year after year the Association continued to struggle for Medical Reform; at the instance of the Association, minister after minister, as well as private members, brought forward bills and abandoned them in despair. Sir James Graham, Mr. Craufurd, Lord Elcho, and Mr. Brady alike failed. Universities, Colleges, and Licensing Boards gave no valid help; all professed more or less desire for reform, but each required such a measure as would redound to its own special advantage—in some instances, rather of a pecuniary than of a truly elevating character. The Association, however, never flagged. Mr. Headlam received the support of Sir Charles Hastings and the Association, and on July 1st, 1857, contrary to general expectation, triumphantly carried the second reading of his Bill by a majority of 147. In consequence, however, of the late period of the session, the Bill did not pass beyond this stage. Towards the end of the year, the medical corporations agreed on the principles of a Bill, essentially the same as that which became the Medical Act. The Committee of the Association on taking the proposed measure into consideration, judged it best to co-operate as far as possible with the corporations; because, though the Bill did not embody all the principles which the Association had supported, it yet contained such improvements as rendered it a fair instalment of Medical Reform. Mr. Cowper, who had in 1857, as Home Secretary, intimated his intention of dealing with the question, introduced the Bill in 1858. He had, however, gone out of office in consequence of a change of ministry. Mr. Walpole, then Home Secretary, supported the measure on the part of the Government; and on July 29th, 1858, the MEDICAL ACT became law. In the discussions with the framers of the Bill, preceding the passing of the Act, it was agreed to forego the principle of direct representation of the profession in the formation of the General Medical Council, in consequence of there being at that time no register of the qualified medical practitioners; but it was understood by the Association that this provision would be carried into effect by subsequent enactment after the passing of the Bill.* The experience gained by the Association has naturally rendered it chary of allowing any future Act to pass which does not embody this provision.

No further decided action was taken by the Association until the General Medical Council deemed an amendment of the Medical Act necessary, and were addressing themselves to the Government for the purpose, when the Committee of Council of the Association on July 5th, 1867, appointed a Subcommittee, consisting of Dr. Edward Waters, Mr. Husband, Dr. H. Simpson, Mr. Southam, and Mr. Nunneley, "to consider what alteration shall be recommended in the mode of electing the Council of Medical Education, so that the great body of the profession shall be more fairly represented." The Subcommittee made a report, which was approved by the Council of the Association, embodied in the annual report of Council, and submitted to the members gene-

rally at the annual meeting held in Dublin, August 1867. The proposals of the Subcommittee were again confirmed with only two avowed dissentients, and the so-called "Direct Representation Committee" was reappointed. In their report, the Subcommittee stated that, having carefully considered the matter submitted to them, they were of opinion: "1. That eight members, to be elected by the registered members of the profession, should be added to the Council. 2. That four should be elected for England, two for Scotland, and two for Ireland. 3. That the election should be by voting papers, to be distributed and collected by the Registrars of the Medical Council in the respective countries. 4. That the tenure of office should be the same as that of the members of the Council appointed by the Crown. 5. That every candidate should be nominated by at least twelve registered members of the profession resident in the division of the kingdom for which he is to be elected; and he shall also signify to the Registrar, in writing, fourteen days before the day of distributing the voting papers, his willingness to serve if elected."

On June 30th, 1868, this Committee, accompanied by the President of the Council (Dr. Sibson) and the General Secretary, waited on the General Medical Council, and urged the adoption of the resolutions on their acceptance, but without receiving any definite answer.

On August 4th, at the annual meeting held at Oxford, the resolutions were again affirmed unanimously, and the Committee was reappointed, with the addition of five members, viz: Dr. Heslop and Dr. Russell of Birmingham, Mr. Cordy Burrows of Brighton, Dr. Davey of Bristol, and Mr. Gamgee of Birmingham. They were requested to take the earliest opportunity of bringing the subject before the Government and the legislature.

The Committee, on October 28th, 1868, drew up an Address "To the Members of the British Medical Association and Profession", which was approved by the Committee of Council, and published in the BRITISH MEDICAL JOURNAL (p. 506, Nov. 7th, 1868), and in the other journals; it was also printed for general distribution. In the address, the following grounds were put forth for the claim for direct representation in the Medical Council:—that the profession as a body was wholly unrepresented; that the expenses of the Council were defrayed from a fund formed of the registration fees paid by the profession, and not from the bodies represented; that some of the most serious anomalies and evils which existed before the passing of the Act still remained unaltered or defectively amended—such as the insufficient preliminary education of medical students, the variable and defective standard of professional examinations, the deficiency of practical examinations, and the assumption of medical titles by unqualified persons. In answer to the inquiry—How it was that the Council, after ten years of assiduous labour, had not succeeded in remedying these serious and self-evident evils?—the reply given in the address was as follows.

"The Council has endeavoured to improve medical education, to discourage irregular practice, and to strengthen and raise the position of the profession, and protect the interests of the public, but these efforts have been comparatively fruitless.

"What, then, are the causes that have so largely neutralised the efforts of the Council? They are mainly these:—(1) The defective composition of the Council as a representative body; (2) the want of external support; and (3) the want of power.

"1. The composition of the Council in itself neutralises many of the best efforts of the body. Ten universities and nine licensing bodies are represented by seventeen members; while, in addition to these, the Government nominates six. Thus three-fourths of the members are sent from those very bodies that control medical education, and that are, or ought to be, in their turn controlled by the Medical Council. Disinterested as are the individual members of the Council, high as is their general purpose, they yet do unconsciously neutralise each other's aims by their conflicting interests, and by the natural reserve and delicacy with which, as themselves representing corporations, they exercise control over each other. Admirable as are the Government nominees in their individual capacity, yet some of them are so connected with the Bodies already fully represented, that they may not unnaturally incline in a greater or less degree to their interests. Granting, however, that they have every desire to support the interests of the public, and the profession even when at issue with those of the corporations, they are too few in number to control the decisions of the Council, and have behind them too small a force supporting them in their action and impelling them to exertion.

"2. The profession, as a body, take comparatively little interest in the proceedings of the Council as at present constituted; and the quickening powers of public opinion and support are, therefore, lost to them.

"3. It is not needful to speak here of the importance—indeed, necessity—of the possession of increased power and more clearly de-

* Mr. Southam of Manchester, a member of the present Reform Committee, an active member of that of the time in question, is cognisant of the fact here stated.

financed authority by the Council; for it is self-evident that, without such power and definite authority, the Council cannot sufficiently control the licensing bodies, or prevent disqualified or unqualified persons from assuming professional titles and practising under delusive pretences, to the great injury of the public, and to the discredit of the profession to which they falsely pretend to belong."

The remedy, the address stated, was to be found in a new and amended Act which, besides increasing and defining the powers of the Council, should include as its most important provision the direct representation of the profession in the Council.

On March 25th, 1869, the Direct Representation Committee again met, and passed the following resolutions:—

"*First.*—To reprint the Address to the members of the British Medical Association, and to the profession generally, agreed to at the previous meeting of the Committee, sanctioned by the Committee of Council of the Association, and published in the JOURNAL of the Association, and in the other medical journals.

"*Second.*—To prefix to the Address an Explanatory Preface for the information of members of the Legislature, and of the public unconnected with the profession.

"*Third.*—To publish the Address and Preface conjointly in the medical journals, and to have copies of the same struck off for general distribution.

"*Fourth.*—To request the Committee of the Council of the British Medical Association to join the Committee in petitions to the Legislature to grant the prayer of the Association.

"*Fifth.*—To issue similar petitions to the Legislature for signature by the members of the profession generally.

"*Sixth.*—To urge on all the Branches of the Association the advisableness of independent action by petition and otherwise.

"*Seventh.*—To recommend that a Deputation, composed of the Committee, of the President of the Council of the Association, and of all interested in, or friendly to, the movement, wait on the Government at the earliest possible opportunity, with the view of obtaining its support for the Petition.

"*Eighth.*—To recommend that a subscription, to defray the expenses incidental to the movement, be sanctioned by the Committee of Council of the Association, a subscription for that purpose having been commenced by the Committee at its last meeting; and that Dr. Falconer, the Treasurer of the Association, be requested to act as treasurer of the fund to be so raised."

They also prepared an address "To Members of the Legislature and the General Public", explaining the origin and constitution of the Medical Council, and the results of its working, and pointing out the defects in medical education and licensing which still existed, and the remedies for them. This address was printed and issued, in conjunction with the "Address to the Profession". The existing evils were described as being the defective previous education of the medical student; the character of the course of study and the examinations, which were not sufficiently practical; and the number of examinations and examining boards. The proposed remedies, it was stated, were:—

"1. The strengthening the hands of the General Council, so as to enable them to prescribe the standard of studies and examinations with greater independence, and to regulate the examining boards with greater authority. 2. That the Colleges or Corporations shall be required to unite to form one examining board, which shall conduct the minimum examination for licenses to practise medicine and surgery, so that instead of several examinations there shall be but one. 3. The third remedy, which embraces the others, is the immediate object of this movement, the Direct Representation of the Medical Profession in the General Council of Medical Education.

"The value of such representation of the profession in forming a component part of the Medical Council may be thus briefly stated. These representatives would have no interest to serve, except that of improving the education and raising the character of their own profession, and so directly promoting the public good. They would be supported and impelled forward by a large body of men who would not willingly see the continuance of those evils that they so justly desire to have remedied. They would convey important and immediate information from the body of the profession to those members of the Council chosen by the corporations or nominated by the Crown. As a final argument in favour of the direct representation of the medical profession in the General Council, which must tell home to the members of a representative legislature, the registered medical practitioners of the United Kingdom provide the whole of the ordinary funds of the Medical Council; they have surely, therefore, a constitutional right to a voice in the deliberations of the Council. It is the reverse of desirable that the corporations should cease to send members to the Medical Council. The high reputation of such members and their intimate acquaintance

with medical studies and examinations will always render their presence in the Medical Council not only valuable but necessary. What is desired is, that those members shall be present, not in preponderating, but in justly proportionate numbers, so that they shall form one half of the Council, and that they shall be equally balanced by the combined numbers of the nominees of the Crown and the direct representatives of the medical profession."

On July 12th, 1869, a deputation of the Committee of Council of the Association, the Direct Representation Committee, and others interested in Medical Reform, had an interview with the Lord-President of the Privy Council. His Lordship promised to give the subject his full consideration, and stated that he would be no party to an imperfect Bill. These proceedings were referred to in the Report of the Council of the Association, at the Annual Meeting at Leeds; and also in the Report of the Direct Representation Committee, submitted to the Association on July 29th (BRITISH MEDICAL JOURNAL, August 7th, 1869, p. 168).

The Report was adopted; but the Rev. Professor Haughton, while approving of the Report, further proposed—"That the British Medical Association are of opinion that the graduates and licentiates of the universities and medical corporations should have the power of electing their own representatives on the Medical Council." This resolution was carried; and Dr. Haughton and Dr. Sibson were added to the Direct Representation Committee.

Early in the parliamentary session of 1870, a Medical Bill was brought forward in the House of Lords by the Government. It recognised the one portal system, involving a good preliminary education, and the passing of one fair and uniform examination by every one entering the medical profession. It made no provision, however, for improving or modifying the composition of the General Medical Council. In these circumstances, the Bill of the Government having been introduced into the House of Lords, the Direct Representation Committee met in Birmingham on May 5th, and, in accordance with the trust reposed in them by the Association, determined to oppose the Bill, unless the prayer of the Association for direct representation of the profession in the General Medical Council, to the extent of one-fourth of its numbers, were conceded. On May 18th, a Special General Meeting of the Association, numerous attended, was held in London, under the presidency of Dr. Chadwick, to consider the provisions of the new Medical Bill. At that meeting, resolutions were again passed, being for the fourth time at general meetings of the Association, demanding direct representation in the General Medical Council, in the proportion of one-fourth of its numbers, the representatives to be elected by the direct votes of the registered medical practitioners.

On the following day, a deputation waited on the Lord-President and the Vice-President of the Privy Council. They laid before the Government the views of the Association as to the one portal; and as to the extent of the powers to be granted to the Privy Council; and they showed how general was the demand on the part of the profession for direct representation on the General Medical Council. The Committee presented to the House of Lords, through the Marquis of Westminster, a petition embodying the prayer of the Association.

On June 28th, the President and President of Council of the Association, and the President of the Direct Representation Committee, met other members of the Committee in London, in consequence of the Bill having passed the second reading in the Lords, and no notice of amendments in favour of direct representation having been given. Several influential members of the upper house admitted the fairness and justice of the claim of the profession for direct representation; but, at that late period of the session, it was not considered possible to give effect to the demand.

The Earl of Lichfield, however, after the Bill had passed through Committee of the Lords, moved in favour of direct representation, but, at the instance of the Lord-President, withdrew his motion.

The Bill having passed the Lords, the Committee again met in Birmingham, and decided to request, through the JOURNAL, the support of the members of the Association in aid of their efforts in the Commons. On July 13th, the Bill passed the first reading in the House of Commons without the knowledge of the Committee, or, indeed, of the representatives of some of the Corporations, who were in London for the express purpose of watching the progress of the Bill.

Mr. Raikes, M.P. for Chester, presented a petition to the House of Commons, and the members of the Association and of the profession poured in hundreds of petitions, signed by thousands of members, praying for the rejection of any Bill that did not provide for the direct representation of the profession in the General Medical Council.

On July 22nd, in accordance with a suggestion from Mr. Graves, M.P. for Liverpool, a meeting of members took place to consider the steps to be taken. It was decided that, if the Government would ac-

cept the amendments of the Association, the second reading would not be opposed. A deputation accordingly waited on the Vice-President, who declined the proposal, but stated that, if the second reading of the Bill were allowed to pass, he would not oppose the appointment of a Select Committee next session, to inquire into the subject with a view to distinct legislation. The Direct Representation Committee, feeling that by acceding to this arrangement, so uncertain in its future accomplishment, they would be betraying the trust reposed in them by the Association, declined the proposition, and the Bill was withdrawn on the 25th.

During the progress of the Bill it had been made further objectionable to the Association by the withdrawal of one of its clauses; the apparent effect of which withdrawal would be to enable persons to obtain the diplomas of colleges, etc., without having passed through the one portal examination.

The Direct Representation Committee, in concluding their report, of which a summary has just been given, suggested that a Medical Reform Committee should be appointed with an enlarged scope of action, and with full power to secure the adoption of the principles for which the Association has contended.

The presentation of the report was followed by a long debate on an amendment moved by Dr. Acland and seconded by Dr. Embleton—

"That this meeting learns with regret—1. That a Committee of this Association has refused, in the name of the Association, the offer of Mr. Forster, Vice-President of the Privy Council, to grant a Committee of the House of Commons at the commencement of next session of Parliament to inquire into the question of direct representation in the Medical Council. 2. That, in consequence of this refusal, the Government declined to proceed with the Medical Bill, on which Lord De Grey, Lord-President of the Privy Council, has bestowed great labour and attention, in connection with the Council and its Executive Committee containing representatives from England, Scotland, and Ireland. 3. That hereby much valuable time has been lost to the public in the settlement of various important measures affecting medical education, as well as the hearty co-operation of a Government truly anxious to promote the best interests of every branch of the medical profession."

The result was the rejection of the amendment by an overwhelming majority, and the appointment of a new committee, under the title of the Medical Reform Committee, "with full power to take such steps as they deem necessary to secure the adoption of the principles of medical reform advocated by the Association in any Bill which may be brought before Parliament". The Committee thus appointed consists of Dr. Charlton (President of the Association), Mr. Whipple (President-elect), Mr. Husband (President of Council), Dr. Falconer (Treasurer), Dr. Edward Waters, Dr. Chadwick, Mr. Southam, Dr. Sibson, Dr. A. P. Stewart, Mr. W. H. Michael, the Rev. Dr. Haughton, Mr. Heckstall Smith, Dr. Davey, Mr. Hughes Bennett, and Mr. Watkin Williams (General Secretary).

The Committee met on December 27th, and, after careful examination of the Bills and suggestions promulgated by different bodies for the amendment of the Medical Act, resolved to draft a Bill based on the Government Bill of last session, and embodying the one portal, compulsory registration, improved examination, an effective penal clause, the annulling of the granting of diplomas to those who do not pass the single examination, and direct representation of the profession to the extent of one-fourth of the Council. A Subcommittee was appointed for this purpose, consisting of Dr. Waters (Chairman of the Committee), Dr. Chadwick, Dr. A. P. Stewart, and Mr. W. H. Michael, Barrister-at-Law.

The Committee, in deciding on this course, have felt that in the present crisis they could do no otherwise than hold to the principles long and frequently maintained by the Association, while at the same time they disclaim all antagonism to the Medical Council or the Universities and Corporate Bodies.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE II.—Monday, February 20th.

AFTER a recapitulation of the principal matters treated of in the previous lecture, Professor Flower proceeded to speak of the Development of Teeth.

About the end of the second month, a semicircular depression is formed along the margin of the gum. At the bottom of the depression is a collection of epithelial cells, which are the commencement of the so-called enamel-organ. In a short time these cells accumulate at the

points where teeth are to be developed, while the intermediate parts are filled up, the cells here diminishing. Afterwards, a papilla rises from the bottom of the depression into the mass of epithelial cells, by which it is covered. The edges of the enderon at the upper part become united, so that the embryo tooth is enclosed in a capsule; and the bone gradually passes in on each side of the papilla, forming the alveolus.

There is some uncertainty as to the mode of development of the tissues of the tooth, especially the enamel. The dentine first appears as a little cap on the papilla, encroaching on its outer surface. It is ordinarily supposed that cells accumulate at the outer surface of the papilla, forming "odontoblasts", with processes projecting from them. Calcification appears to take place around the cells, which contract, and become the soft fibrils of the dentine.

Enamel is stated by Waldeyer and other recent observers to be formed, not from the pulp itself, but from the mass of epithelial cells. This divides into a layer of columnar cells resting on the pulp, and an outer layer applied to the capsule; with a loose stellate tissue between these layers. According to Waldeyer, enamel is produced by the ossification of the cells nearest the pulp. Huxley, however, believes that the enamel is formed by the pulp itself, outside the dentine. According to the former view, the enamel is of ecderyc origin, and analogous to the lower part of a hair; according to the latter, the whole tooth is ecderyc, and corresponds with the hair-papilla.

Cement is formed by an ossification of the surface of the capsule surrounding the tooth. In the human tooth, it is limited to the parts below the neck; in other animals, it extends over the crown.

The teeth in Mammalia present various modifications. The multiplication of the root into two, three, or four, is peculiar to Mammalia. It is produced by division of the lower part of the pulp. The crown, which in its primary form is a simple cone, may become flattened or chisel-shaped, or may have a number of additional points, known as cusps. There is often a bony ridge at the base of the crown—the cingulum: this is developed, for example, in the Hyæna and the Insectivorous animals, and appears to be intended for the protection of the gum. In the Horse, the enamel is folded in, with the dentine and often a little cement on the inside, so that the appearance of a hole is produced. As the animal advances in age, the involuted parts are gradually worn down, until at last a simple surface may be left. In some cases, as in Galeopithecus, the pulp grows up in a series of separate papillæ, each covered with enamel; the tooth being thus drawn out into separate points or divisions, giving it a pectinated aspect. In the wart-hog of Africa, the molar tooth is divided into a number of columns, lying side by side, and having the pulp united at the base. The molar teeth of the Elephant are formed on the same principle; the pulp expanding in a leaflike manner at the upper part, and the interstices being filled up with cement.

In the Cape Anteater, the teeth, which are confined to the back part of the jaw, appear to consist of a cylindrical mass, without pulp-cavity or anything approaching to ordinary structure. On section, however, small pulp-cavities with fine radiating lines are shown, each cavity representing a denticle, not surrounded by enamel or cement. The tubules appear to pass from one denticle to another, and the pulps to arise separately.

Lateral flutings of the teeth are often present, being produced by growing in of the enamel. This occurs in Rodents, especially the Capibara, in which animal, the indentations extend through the substance of the tooth.

In some Mammalia there is but one set of teeth throughout life; but in most a certain number undergo change—a phenomenon which is confined to Mammals. Owen has classified Mammalia into Monophyodonts (having one generation of teeth), and Diphyodonts (having two generations). Monophyodonts are mostly found among the Cetacea and Edentata—two widely separated groups. It was formerly thought that the teeth of Monophyodonts were very uniform in structure, while those of Diphyodonts presented diversities; hence the application of the terms Homodont and Heterodont as synonyms. But further researches have tended to show that the connexion referred to is not invariable. Some Armadillos (Homodonts) change their teeth; and, on the other hand, certain Heterodonts, as the Wombat, have only one set, and the same is apparently the case in the common Rat.

There are always certain of the back teeth which are not changed. It was formerly supposed that, if any tooth in front of a given part underwent change, all did. In Rodents, however, there is no change of the front incisors. In the Opossum, among Marsupialia, there is one tooth only changed on each side. The milk-teeth, in some cases, instead of being functionally important, are rudimentary, and are shed very early—sometimes even before birth, thus forming a transition between the Monophyodonts and the Diphyodonts.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE annual meeting of this Society was held on the evening of Wednesday last, March 1st; George Burrows, M.D., F.R.S., President, in the Chair.

The abstract of income and expenditure for the year was presented. It showed that the income (including a balance of £98 18s. remaining last year) was £1520 16s. 1d.; and the expenditure £983 9s. 8d.; leaving a balance in hand of £537 6s. 5d. The report was adopted, on the motion of Dr. John Webster, who congratulated the Society on the highly satisfactory state of its finances.

The Report of Council stated that the Society consisted of 665 Fellows, of whom 16 had been elected during the year. There had been fifteen deaths. The library had been increased by the addition of 456 books. The library committee had made their triennial inspection and had reported the state of the library to be satisfactory. In consequence of the increasing want of room for the books, it was in contemplation to build a new reading-room on the site of some unused stables in the rear of the Society's house. It was reported that an Index to the *Transactions* of the Society was in progress. The Report contained also recommendations for changing the time of meetings of the Society, and for the discontinuance of the publication of *Proceedings*. The report was received.

Dr. BARCLAY moved, Mr. R. B. CARTER seconded, the adoption of the following recommendation of the Council. "That in future the meetings of the Society be held on the second and fourth Tuesdays in the month (the fourth Tuesday in December excepted) from the second Tuesday in October to the fourth Tuesday in May, instead of from November to June, as at present." This was adopted; and at a subsequent stage of the meeting the necessary alterations were made in the Bye-laws.

Dr. BARCLAY next moved and Mr. CARTER seconded the adoption of the recommendation of the Council, "that for the future the publication of the Society's proceedings be confined to the volume of *Transactions*, and that the separate publication of the *Proceedings* be discontinued".

A long discussion ensued, in the course of which the withdrawal of the *Proceedings* was opposed by Drs. R. Lee, J. Webster, Pavy, and other members, and supported by Mr. Curling, Mr. Spencer Wells, and others. It was urged, on the one hand, that the *Proceedings* at present contained little more than the abstracts of papers and discussions which appeared in the medical periodicals, and that they had failed in their object of becoming the depositories of short papers; while the opponents of the proposal brought forward the example of the Royal Society, and urged that the intention of the *Proceedings* was not generally known, and that they were capable of improvement.

Dr. JOHN WEBSTER moved, and Dr. PAVY seconded, an amendment remitting the subject to the Council, with the view of considering whether the *Proceedings* could be continued in an amended form. This was carried by a majority of one; 16 voting for and 15 against it. It was then carried as a substantive motion by a majority of four.

The following officers and Council were declared to be elected for the ensuing year. President, T. B. Curling, F.R.S.; Vice-Presidents, H. A. Pitman, M.D., A. P. Stewart, M.D., G. D. Pollock, J. A. Bostock; Treasurers, W. R. Basham, M.D., J. Birkett; Secretaries, E. Symes Thompson, M.D., Thomas Smith; Librarians, T. K. Chambers, M.D., C. Brooke, F.R.S.; Other Members of Council, G. T. Fincham, M.D., R. Greenhalgh, M.D., G. Harley, M.D., F.R.S., W. Marcet, M.D., F.R.S., C. Murchison, M.D., F.R.S., G. G. Gascoyen, J. W. Hulke, F.R.S., A. Noverre, S. J. A. Salter, F.R.S., W. S. Savory, F.R.S.

The retiring President, Dr. Burrows, delivered an address. After some introductory remarks, he referred to the Fellows who had died during the year; viz., Dr. Copland, Dr. Mayo, Mr. Syme, Dr. Chowne, Dr. MacLachlan, Mr. C. H. Moore, Dr. S. J. Jeaffreson, Mr. T. Nunneley, Mr. Arnold Rogers, Mr. John Soden, Mr. J. Badley, Mr. Henry Norris, Dr. J. C. Franz, and Dr. T. Bacon Phillips. Of most of these he gave biographical sketches, acknowledging gracefully his obligations to the medical periodicals for information. Speaking of the amalgamation scheme, he said that, while he regretted its failure, he could not wish it to have succeeded in the face of the strenuous opposition raised against it and the lukewarm support which it received within the Society which originated it. He concluded by thanking the officers and Fellows of the Society for the support they had afforded him during his tenure of office.

Votes of thanks to Dr. Burrows and to the other retiring officers and members of Council concluded the proceedings.

A LUNATIC ASYLUM DURING THE SIEGE OF PARIS.

By DR. BRIERRE DE BOISMONT.

[ADDRESSED TO DR. FORBES WINSLOW.]

AT your request, my dear *confrère*, I propose to give you a short account of my sufferings, as well as those of the patients under my care, during the recent siege of Paris; and I do this the more willingly, as you have for many years given me abundant proofs of your friendship and devotion. I take, as an example, the state of my own asylum, as it will illustrate on a small scale the painful scenes of a family life in a *maison de santé* during the siege.

The house in which I reside and which is under my management is situated at the further end of the Faubourg St. Antoine, and embraces an extent of 12,000 metres. It is composed of gardens and scattered buildings; the cellars are large, well vaulted, and resemble casemates. Formerly, State prisoners were confined here, and it was from this house that General Mallet, who for some hours put the power of Napoleon I in jeopardy, fled on October 22nd, 1812.

Without attaching undue importance to the opinions of persons who pretended to be well informed as to the supply of food in the city, I immediately purchased the provisions necessary to sustain the establishment for several months. Speculation in the necessaries of life considerably enhanced their prices. Fuel of all kinds and many other articles could scarcely be procured. In the early part of October the supply of milk ceased. Those who know Paris will readily believe the privations which my patients suffered from the absence of *café au lait*, this beverage being one of the principal items of the breakfast-table.

One of the events of the siege which I had anticipated occurred, and greatly increased my anxiety. The military engineers intimated to me that my sister's house for convalescents at St. Maude would in all probability have to be destroyed for the defence of the capital. The Minister of the Interior officially informed my daughter, Madame Bivet, of this fact, and requested her to transfer her patients (sixty-two in number) with her attendants and officials into Paris. This raised the number of patients in my asylum to two hundred!

Towards the middle of October an egg was worth a *franc*; chickens and ducks from twenty to thirty *francs*; geese from sixty to seventy *francs*. In the last days of the siege, eggs were sold at two *francs* and a half each. Fowls were hardly procurable at any price. In order to be prepared for this difficulty, I purchased eighty laying hens, and about one hundred pigeons to supply the wants of the weak and delicate individuals in the asylum. In the latter part of October the pork-butchers' shops were closed, and fresh pork, bacon, etc., were not to be had. The butchers' stalls, governed by municipal authority, now substituted horseflesh for beef, mutton, and veal. The quantity allotted to each individual became really insufficient. During the last month of the siege, thirty *grammes per diem* were allotted to each person. Consequences of a very grave nature would certainly have ensued from this insufficient supply of nourishment, had not my constant care for my patients impelled me to search for food in places where I thought it might be concealed. I was thus furnished with horses and mules during the continuance of the siege (killing some of my own); so that, with the exception of two days, my inmates were supplied with this kind of meat.

In spite of all assurances to the contrary from official persons, the rationing of bread took place in January. At first it was made from thirty parts of flour mixed with vegetables, and very soon it was manufactured from badly sifted wheat, bran, oats, and rice. Among other ingredients of which it was composed, were portions of straw finely cut.

On January 13th, there was only to be had a blackish kind of bread, which, when eaten, spread itself upon the tongue like dust, and irritated the teeth. This food prevented my eating anything for two days, and caused me to suffer from extreme vertigo. To counteract the ill effects of this diet, I ordered the use of wine and cocoa, with which I was well supplied. Several of the patients refused to eat the bread; some of them died just as a lamp burns out for want of oil. I procured a quantity of husked wheat, which I caused to be well boiled and seasoned; and this, eaten together with horseflesh, saved us from the pangs of hunger, from which so many others suffered at that time.

In this account I must not omit to refer to the difficulties which I had to encounter in procuring fuel. In consequence of the deficiency of coal, wood, and coke, I was under the painful necessity of discontinuing the baths, and shutting up the stoves in order to enable me to have coals for the use of the kitchen. At a later period of the siege, firewood

was obtained by cutting down the trees in the Bois de Boulogne and Vincennes.

In my dire extremity I made an application to the Ministry of Commerce and Agriculture, and fully detailed to them the peculiar position in which I was placed. They were touched by my statement, and a small supply of coal was allotted to me, but only a sufficient quantity to be used in the kitchen. Notwithstanding my critical position, all my subsequent appeals to obtain a further supply of fuel were useless. During the frightful cold of November and December I was obliged to erect stoves in all the principal rooms and corridors of the asylum, but no wood could be procured from those who usually supplied it, notwithstanding the two woods to which I referred. In consequence of this absence of fuel, I had to cut down twenty large trees in my own grounds. You can well understand, my dear friend, having beautiful trees of your own in the grounds attached to your own asylum, the anguish of mind this destruction caused me; for these trees during the hot months of summer formed a shady retreat for my patients.

It is impossible for me to describe to you all the miseries to which the siege subjected us. The defective supply of nutriment caused among my patients great emaciation, profound debility, disordered respiration, and sleeplessness, particularly among those of advanced age. As the effect of want of food, I was reduced to a state of great exhaustion (having lived for four months on horse-flesh and horrible municipal bread), and many of my patients suffered in the same way. Living on horse-flesh, and being deprived of milk, fish, vegetables, etc., seriously affected the health of my patients, particularly a great number of my elderly ones, who died in a short time, but whose existence would have been prolonged had they been supplied with delicate food suitable to aged persons. In November and December the mortality among the patients was very great. Diarrhoea and dysentery, and the consequent exhaustion caused by these maladies and the want of food, led to many deaths, several of my patients dying in the course of one day. In this sad condition we continued until packages of provisions opportunely arrived from London; and the food thus obtained may be said to have been the means of saving my own life, as well as the lives of several of my patients.*

The mental disorders that occurred during the siege were characterised, as in 1848, by great exaltation and depression, but the terrible despair that fixed itself on the imagination was much more marked than at the former convulsion. The insane had two things to contend with, viz., an intensely exalted imagination caused by morbid conditions of the brain, combined with the painful physical and mental sufferings consequent upon defective nourishment and all the horrors accompanying the siege. What greatly intensified the state of my insane patients was their almost chronic condition of insomnia, the effects of the bombardment. Under these circumstances it was almost useless for patients to retire to bed, for no continuity of sleep could be obtained. Every evening at half-past ten, as if the enemy grudged even a moment's repose, the bombardment commenced and lasted without intermission until five o'clock in the morning. My poor patients were very much tormented by it, and great cries issued from a dormitory, where thirty or more were assembled together. The lamentable effects of this war, and particularly of the siege of Paris, will, I fear, not soon pass away. Generations yet to come will be the sufferers from so terrible a calamity. The whole of society appears to be disorganised. Fathers, husbands, and sons have disappeared most mysteriously from the scene of life. Men of fortune have been ruined, and desolation and despair are everywhere to be met with. I pointed out in the *Union Médicale* in 1848, the sad effects of political revolutions on the mental health, but the cases then detailed will in amount be insignificant as compared with what this frightful social and political convulsion must eventually produce. As to the effect of the siege on the general mortality of Paris, I will merely state that the death-rate rose from 1,300 to 1,400 (the ordinary weekly average) to 4,670, for this number of persons died in Paris during the last week of the siege. If things change, I propose to send you a detailed account of the effects of this political crisis in the production of insanity.

* The contents of these packages were cheese, hams, tongues, preserved milk, venison, mutton and beef roasted, potatoes, tea, biscuits, Bath chaps, soup and bouilli, beef and vegetable stew.

DR. GEORGE BUCHANAN has been presented with a handsome clock in bronze and marble by the students attending the Popular Anatomy Class in Anderson's University, Glasgow. The clock, which is surmounted by the figure subject Michael Angelo's "Thinker," bears the following inscription: "Presented to George Buchanan, Esq., M.D., by the Students of his Popular Evening Class, Anderson's University, February 1871."

ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT MEDICAL MEETINGS.

THE March meeting of members of the above District will be held on Wednesday, March 8th, at 3.30 P.M., at the Sussex Hotel, Tunbridge Wells: CHARLES TRUSTRAM, Esq., in the Chair.

Gentlemen willing to contribute papers, etc., will greatly oblige by letting me know at their earliest convenience.

Dinner will be provided at 5.15 precisely. Charge 5s., exclusive of wine.

FREDK. CHAS. MUDD, *Honorary Secretary*.

Albion Villa, Uckfield, February 7th, 1871.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE next general meeting of the above Branch will be held at the Midland Institute, Birmingham, on Thursday, March 9th, at 3 P.M.; THOMAS UNDERHILL, Esq., President, in the Chair.

T. H. BARTLEET, *Honorary Secretary*.

Birmingham, March 1871.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting of the members of the above District will be held at the Pavilion Hotel, Folkestone, on Thursday, March 16th, 1871, at 3 o'clock: Dr. BOWLES, of Folkestone, in the Chair.

Dinner will be provided at 5 o'clock precisely. Charge, 5s., exclusive of wine. All members of the South Eastern Branch are entitled to attend, and to introduce friends.

Papers have been promised by Dr. Bowles, Mr. Bateman, Dr. Wilkin, and Mr. Osborn.

Gentlemen who intend to be present at the dinner, are particularly requested to inform me on or before Tuesday, the 14th instant.

CHARLES PARSONS, M.D., *Honorary Secretary*.

2, St. James's Street, Dover, February 28th, 1871.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE following office-bearers for 1871 have been elected:—*President*: George Padley, L.R.C.P., Swansea. *Members of Council*: Pearson R. Cresswell, Esq., Dowlais; E. Davies, Esq., Swansea; T. J. Dyke, Esq., Merthyr; W. T. Edwards, M.D., Cardiff; J. C. Hall, Esq., Swansea; Gwynne Harries, M.D., Pembroke; G. Jones, Esq., Aberdare Dock; J. Paddon, M.B., Swansea; H. J. Paine, M.D., Cardiff; John Russell, Esq., Neath; W. Taylor, M.D., Cardiff; D. Yellowlees, M.D., Bridgend. *Honorary Secretaries*: Andrew Davies, Esq., Swansea; Alfred Sheen, M.D., Cardiff.

CORRESPONDENCE.

THE SUBCUTANEOUS DIVISION OF THE NECK OF THE THIGH-BONE.

SIR,—In Mr. Brodhurst's letter, published in the *BRITISH MEDICAL JOURNAL* of the 25th February, in reply to mine of the 18th February, he has still left unanswered the questions which I put to him as necessary to the establishment of his claim to priority in the operation of subcutaneous division of the neck of the thigh-bone.

Mr. Brodhurst's operation, in the year 1865, on which he rests his claim in his work on *Deformities*, p. 152, was, by inference, assumed by me to have been performed on the hip-joint, since it was placed in juxtaposition with my hip-joint operation, and used by Mr. Brodhurst in his argument as being of a similar character.

As the joint operated upon was not stated, I begged, in my letter of the 18th February, that we might be favoured with this information, as well as with other details. Mr. Brodhurst, however, has not given this information, but in his reply states, "this operation was not at the hip, but it was done on account of considerable deformity, which occasioned lameness." I think, however, I can supply your readers with the information which Mr. Brodhurst declines to give, and state that the operation in question was performed on the *great toe* of a gentleman, a portion of the metatarsal bone being removed from what Mr. Brodhurst describes as a considerable deformity. In this region I have no doubt

that the "button-hole" aperture was amply large enough to admit of his using "a very small saw" with ease, especially as Mr. Brodhurst, alluding to the relative merits of large and small incisions, remarks, "I have now operated in several cases of a similar kind, and I prefer to make such an incision as shall afford ample room for the protection of the soft structures." Although we are not told either of the precise nature, or the result of this case, we are informed that "the wound took much longer time to heal" than an operation on the hip-joint, with which it was compared, so that the progress of the case was not in accordance with the results of subcutaneous surgery.

On the above case, on which Mr. Brodhurst has based his claim, I am sure I need make no further comment than to ask any of your readers whether such an operation as this, performed by Mr. Brodhurst on the great toe, can be compared with the subcutaneous division of the neck of the thigh-bone, as performed by myself, or even correctly described as one of a *similar character*.

In Mr. Brodhurst's letter, however, as if fearing that the operation of 1865 might upon inquiry break down, he has imported a fresh operation, upon which he now, for the first time, bases his claim to the subcutaneous division of the neck of the thigh-bone as far back as the year 1861.

Mr. Brodhurst observes, "But in 1861 I cut through the neck of the thigh-bone subcutaneously, in a case where bony ankylosis had taken place at the hip-joint; and in the following year I brought the details of the case before the Royal Medical and Chirurgical Society, hoping they were of sufficient interest and importance to gain a place in the Transactions of the Society. . . . This paper, however, was not published, and a slender record alone appeared in the Society's *Proceedings*. . . . In my communication to the Society this operation was treated of as subcutaneous osteotomy."

Let us now see what the operation really was, according to the abstract of the paper published in vol. iv of the *Proceedings* referred to (p. 97), premising that such abstracts, as a general rule, are supplied by the author himself. The title of the paper is as follows, "Further Observations on Ankylosis, with an Account of a New Operation for the Restoration of Motion, when Articular Inflammation has resulted in Synostosis."

The case was one of hip-joint disease of many years' duration, occurring in a young lady æt. 25. Abscesses had formed, and bony ankylosis is said to have ensued with the limb in a deformed position. "It was determined to divide the neck of the thigh-bone, to remove the necrosed portions of bone, and to form a false joint. The operation was commenced by making an incision two and a half inches in length, which commenced one inch and a half above the great trochanter, and which was carried downwards, and outwards to the outer side of the trochanter itself. The upper portion of the incision was extended upwards and inwards for two and a half inches, until it fell into a suppurating sinus immediately below Poupert's ligament. The neck of the femur was sawn through, and the sharp edges of the bone were removed, as well as the necrosed bone of the acetabulum."

Neither in the title of the paper, nor in the text, is the word *subcutaneous* even used; nor is any allusion whatever made to subcutaneous osteotomy; neither is any such allusion made in his work on *Deformities*, p. 150, where this case is also alluded to, and placed in juxtaposition with one of Dr. Barton's for establishing a false joint in ankylosis; so that putting this operation in the class of subcutaneous operations has been clearly an after-thought of Mr. Brodhurst's.

Now, Sir, if operations of this magnitude, with large external incisions—in the present case stated to be two and a half inches in length, and then extended to five inches (from the great trochanter to Poupert's ligament)—admitting the free use of the saw, chisel, and gouge, for the purpose of dividing bone, and removing necrosed bone, are to be called subcutaneous operations, then I must confess myself to be entirely ignorant of the principles and practice of subcutaneous surgery, the very essence of which consists in the small size of the external wound, and the entire exclusion of air from the divided structure, whether tendon, muscle, nerve, or bone; by which means we ensure a more simple and more perfect reparative process than in open wounds, as well as freedom from suppuration, with all its attendant dangers.

If Mr. Brodhurst expresses surprise that I should still claim originality for my operation of subcutaneous division of the neck of the thigh-bone, I might well be excused using stronger language in condemning the attempt made by Mr. Brodhurst to appropriate my operation upon such evidence as he has adduced, and which I have now fairly analysed, leaving his claim to be decided by the further criticism and judgment of the profession.

I am, etc.,

WILLIAM ADAMS.

5, Henrietta Street, Cavendish Square, February 28th, 1871.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN AND IRELAND.

THE Poor-Law Commissioners have declined to sanction a proposed arrangement for the relieving officers of the Woolwich Union to act as Vaccination Inspectors; and consider that some person should be appointed specially for that duty.

MEDICAL ORDERS FOR FOOD IN SICKNESS.

SIR,—I am extremely sorry that Mr. Bush should have insinuated that I might have been influenced by some personal animus in addressing the Poor-law Board on the subject of the discretionary power of medical officers in ordering extra food, stimulants, etc., for the poor under their charge, and beg to inform him that I have attended the poor of the Wenlock district, which is in the Madeley Union, for forty years, during which time I have never had a single dispute with the guardians, overseers, or relieving officers. For the guardians, individually and collectively, I entertain a great respect, and do not blame them or their officials for acting in conformity with the law in refusing my orders, even when I regard their execution as essential to the recovery of my patients, if they entertain a contrary opinion. I find fault with the law, and not with the executive under the law. Nor do I blame Mr. Bush for the expression of his opinion, if he really thinks that medical officers ought in such cases to defer to the judgment of relieving officers and overseers. It is a question for the consideration of medical officers generally. The continuance or abandonment of such a regulation cannot be of any consequence to myself, but will affect the position and efficiency of future medical officers as well as the comfort and recovery of the sick poor. I am, etc., W. P. BROOKES.

Much Wenlock, February 27th, 1871.

VACANCIES.

- BELFORD UNION, Northumberland.—Medical Officer for the East District (£25 per annum, and extra fees): applications, to Wm. Johnson, Clerk to Guardians, Alnwick, 6th; election, 8th.
- BIRMINGHAM, Parish of—Five District Medical Officers (£200 per annum each, and fees for visiting, etc., pauper lunatics): applications to W. Thompson, Clerk to the Guardians, 15th; election, 22nd; duties, 25th.
- DARLINGTON UNION, Durham—Medical Officer for the Barton District (£28 per annum, and extra fees).
- DURSLEY UNION, Gloucestershire—Medical Officer and Public Vaccinator for District No. 3 (£80 per annum, and fees): applications, to George Wenden, Clerk to Guardians, 15th.
- FALMOUTH UNION, Cornwall—Medical Officer for the Constantine District: applications to the Vicar of Constantine: vacancy, March.
- KNARESBOROUGH UNION, Yorkshire—Medical Officer and Public Vaccinator for the Knaresborough District (£55 per annum, and extras): applications, 7th, to Edwin Smith, Clerk to Guardians; election, 8th.
- KNIGHTON UNION, Radnorshire—Medical Officer and Public Vaccinator for the Bampton Brian District (£20 per annum, and extra fees): applications, to Edwin H. Deacon, Clerk to the Guardians, 15th; election, 16th.
- NEATH UNION, Glamorganshire—Medical Officer and Public Vaccinator for the Briton Ferry District (£25 per annum, and extra fees); Medical Officer and Public Vaccinator for the Glyncoerrwg District (£10 per annum, and extra fees): applications, to Howell Cuthbertson, Clerk to Guardians, 6th; election, 7th.
- ST. IVES (Hunts) UNION—Medical Officer and Public Vaccinator for the District of Somersham (£70 per annum, and extra fees): applications, to Edward A. Wallingford, Clerk to the Guardians, 20th; election, 22nd.
- THORNBURY UNION, Gloucestershire—Medical Officer and Public Vaccinator for the Almondsbury District (£60 per annum, and extra fees): applications, to R. Scarlett, Clerk to the Guardians, 16th; election, 17th.
- WIGAN UNION, Lancashire—Medical Officer and Public Vaccinator for the Wigan District (£80 per annum, and extra fees): applications, to Henry Ackerley, Clerk, 7th.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

POOR-LAW MEDICAL-INSPECTORSHIP.

WE are happy to state that the Poor-law Commissioners (Ireland) have, in accordance with the resolution lately passed by the Poor-law Medical Officers' Association and the remarks that we considered it to be our duty to make on the subject, appointed a member of the Service—Dr. Burke of Westport, Galway—to be Poor-law Medical Inspector, in place of the late Dr. Hill. This is another proof that union is strength; and if the Poor-law medical officers of Ireland and England also do not unite for mutual co-operation in redressing their grievances, they have but themselves to blame.

COMPULSORY VACCINATION ACT (IRELAND).

WE have frequently drawn attention to the perfection of vaccination in Ireland, to which is due the present immunity of that country from small-pox. We are glad to perceive the manner in which the Dublin papers have almost without exception directed attention to a trial, under

the Compulsory Vaccination Act, which occurred in that city on Saturday last in the police-court. This case is interesting to the public, who will do well to take every precaution, both of vaccination and re-vaccination (as recommended both by Dr. Kennedy and Dr. Lyons in their lectures and letters, to which we have already alluded), to prevent the spread of this disease. The ventilation of this trial by the public press of Dublin has, we are informed, already almost doubled the number of vaccinations during the last week, and will have a most beneficial effect in staying the progress of small-pox. With regard to its professional interest, it has, we think, established a precedent for the payment of medical men who may be obliged to attend at the bench or police-court as witnesses in such cases. Hitherto boards of guardians have in some instances objected to pay their medical officers in such cases, and the Poor-law Commissioners have not always taken their usually enlightened view of this question; but the perfect vaccination of the inhabitants of a district, which may be looked upon as the perfect preventative of the occurrence of small-pox in that district, unless imported as at present, is paramount to all questions of payment of fees, and expenses, and so forth, which might in certain instances interfere with the proper carrying out of this invaluable Act.

On this occasion, Dr. Maunsell, Secretary to the Poor-law Medical Officers' Association of Ireland, applied to the magistrate (Mr. Barton) for the fee—one guinea in each case—and expenses for carriage-hire, searches in registration-books, etc., under the 13th section of the Compulsory Vaccination Act (Ireland), from which, as many of our readers may not be aware how they can legally obtain payment for their services, we give an extract.

"If the justice or justices before whom such proceedings are heard certify that such expenses ought to be allowed, such amount shall be payable out of the poor-rates of the union in which the neglect or default shall have arisen."

Mr. Barton remarked that he would at once certify for the doctor's fees and expenses; and he further added that he frequently felt pained that he was unable to order a fee for a medical gentleman (Dr. Speedy, Treasurer to the Association) who was then sitting beside him on the bench, who was obliged to devote a large amount of his valuable time, and who also gave him invaluable assistance in the committal of dangerous lunatics, "without fee or reward", owing to an Act lately passed on that subject. We shall take an early opportunity of drawing attention to the working of this Act.

THE IRISH POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

WE have much pleasure in publishing the report of a very important meeting of the medical profession in the Downpatrick Union. The views taken by these gentlemen on the subject of the formation of the Poor-law Medical Officers' Association of Ireland, are in strict accordance with those promulgated in the programme of the Association; and we have no doubt that their chairman and very active secretary will fully carry them out. In so doing, they cannot fail to ensure success.

A meeting of the members of the medical profession resident in Downpatrick Union was held in Downpatrick on Saturday, February 18th, to take into consideration the advisability of forming a District Branch of the Irish Poor-law Medical Officers' Association. Dr. White having been called to the chair, and Dr. Filson having been requested to act as Secretary, the following resolutions were agreed to.

1. "That, while we fully recognise the good services rendered by the Irish Medical Association to the interests of the medical profession, and are prepared to continue to it our individual support; yet, believing that those interests require every possible agency for the furtherance of their welfare, we gladly avail ourselves of the organisation of the Irish Poor-law Medical Officers' Association, and recommend the formation of a Branch in the Downpatrick Union consisting of all medical men residents therein.

2. "That Dr. White be appointed Union Representative.

3. "That the Secretary be requested to communicate with the medical officers of the other unions in the country with a view to immediate organisation and appointment of representatives.

4. "That the next meeting be held in Downpatrick on Saturday, March 25th, at one o'clock P.M., to consider any replies to these communications, and any other business that may be brought forward."

VACANCIES.

BALTINGLASS UNION, co. Wicklow—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Rathvilly Dispensary District (£100 per annum, and fees): applications to F. H. De Montmorency, Secretary; election, 14th.

ENNISTYMON UNION, co. Clare—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Ennistymon Dispensary District (£100 per annum, and fees): applications to Francis O'Brien, Secretary, Smithstown, Ennistymon; election, March 8th.

TULLAMORE UNION, King's County—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Kilbeggan Dispensary District (£90 per annum, and fees): applications to Mathias McManus, Secretary, Kilbeggan; election, 13th.

OBITUARY.

JOHN ADDINGTON SYMONDS, M.D., F.R.S.E.,

VICE-PRESIDENT OF THE BRITISH MEDICAL ASSOCIATION.

THIS highly eminent and esteemed member of our profession died on Saturday last, at the age of sixty-three, after a long illness; and was buried on Thursday. We have, while preparing to go to press, received from two of his medical brethren in Clifton some very interesting information respecting him; with the aid of which we shall endeavour in next week's JOURNAL to present to our readers a sketch of his professional and public career. In the meantime, we cordially endorse the summary of his character given by one of our correspondents, who says that Dr. Symonds "was in the highest sense a scholar, a philosopher, and a Christian gentleman, and endowed with qualities which commanded the esteem and won the affection of a very large number of friends of all classes and of all opinions."

JOHN HATTON, M.D.

AN old and much esteemed member of the British Medical Association has lately been removed from us by death. The late Dr. Hatton was a pupil of Mr. Jordan, a veteran practitioner of Manchester; and, on the completion of his medical novitiate, commenced practice in that city. Distinguished by great mental activity and energy, combined with social qualities of no mean order, and a sense of professional honour, he soon acquired a very respectable position amongst his medical brethren. For many years he filled the office of Surgeon to the Chorlton-upon-Medlock Dispensary, on his retirement from which he was presented by the Board of that institution with a handsome testimonial in recognition of his services. For a period of fourteen years he fulfilled the duties of Secretary to the Lancashire and Cheshire Branch of our Association, to the interests of which, both scientific and social, he ever devoted himself with unflagging zeal. Rarely did he absent himself from our annual gatherings; and many and enduring were the friendships which these reunions enabled him to cultivate; in testimony whereof we need only appeal to the estimate formed of him by some of our most distinguished members. Continued ill-health compelled him to relinquish his more active duties in connexion with the Association, his reluctant withdrawal from which was followed by the presentation of a handsome service of plate from his associates of the Lancashire and Cheshire Branch. The stern requirements of complicated physical disorder now necessitated his withdrawal from active practice, and led him to fix his residence at Belvedere, North Kent. Here he continued to dwell, attending as often as failing health permitted the annual gatherings of the Parent Association. During a recent visit at the house of one of his oldest friends and patients, he expired somewhat suddenly on January 26th, 1871, and was interred in the parish church of Bowdon, in Cheshire.

MAXWELL F. REILLY, L.R.C.P. EDIN., WIGAN.

DR. REILLY, whose premature death we grieve to record, was cut off very swiftly by a malignant fever caught in the discharge of his duties at Wigan, where he had medical charge of the union workhouse. He was twenty-seven years of age, and full of life and spirits, and had been married barely five months. He showed an early aptitude and love for study. He entered young into the Dublin University; but, after a time, circumstances occurred which compelled him to choose between literature and medicine, and he embraced the latter. His first start was to a district on the coast badly infected with cholera, where he threw himself without fear among the poor, rendering to them what assistance he could. He was pronounced by one of the Roman Catholic clergymen of the district to be a "fearless adventurer". He afterwards proceeded to the North of England, where he was highly esteemed and made many friends. A year and a half ago, he removed to Wigan, where he was appointed to the Poor-law Union. Here he gained much esteem and good-will, and by his kindly manner con-

ciliated even those who had been most opposed to his election. Here he fell a victim to fever, contracted in the discharge of his duty. The deepest sympathy has been expressed in the town. Surrounded by a weeping multitude of rich and poor, his body was conducted to the train, to be borne to Dublin for interment. His Wigan friends have signified their intention of erecting a tablet in the parish church to commemorate his memory. His professional brethren, Messrs. White and Roocroft, attended him in his last illness with affectionate care, and testified feelings of good-will and respect which have been deeply appreciated by his sorrowing relatives.

REPORTS OF SOCIETIES.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, FEB. 15TH, 1871.

J. H. BENNETT, M.D., F.R.S.E., in the Chair.

DR. GEORGE W. BALFOUR showed a patient labouring under Innominate Aneurism. Under treatment, which consisted of rest, with iodide of potassium in half-drachm doses three times a-day, and the external use of the iodine liniment, the tumour had diminished from the size of a small orange to that of a walnut, and all the symptoms were greatly alleviated.

DR. P. H. WATSON showed the parts removed from a case of Cancer of the Breast, in which a T-shaped incision had been required, and in which the axilla had been carefully cleared out of its contents.

DR. ARGYLL ROBERTSON showed—1, an Eye removed after injury from a piece of metal, in which the fragment was found imbedded behind the iris; 2, an Eye removed in consequence of containing a gliomatous tumour.

DR. MATTHEWS DUNCAN read a note of a Rare Malformation. It occurred in an eight months' foetus otherwise healthy, which survived its birth about forty-eight hours. In it there was entire absence of the urinary and generative systems. There was not the slightest indication even of a perineal raphe, nor any external trace of organ except a tubercle of the size of a pea, which was found on examination to contain no structure except skin and fat. The rectum was full of meconium, and ended abruptly in the pelvis; not a trace of bladder or ureters existed. Small bodies, which were probably the suprarenal capsules, were found in the natural position; but these could not have been rudimentary kidneys, as there was no trace of pelves. There was no cystic degeneration. Two little bodies like peas containing a vestige of tubular structure were found in the inguinal canals. The chest-organs were healthy.—Dr. DUNCAN remarked on the extreme interest of this case, not only from its rarity, but also in a physiological point of view, in its bearing on the question of the excretion of urine during foetal life. It contrasted with the rare case of hydronephrosis, which last year he had brought before the Society.—A short discussion, in which the question of congenital calculi was introduced, followed the reading of this most rare and interesting case.

The SECRETARY read a paper by Dr. R. TURNER and Dr. R. S. TURNER, of Keith, on Cases of Poisoning by Carbonic Acid Gas, with remarks. Four healthy adults were shut up in a close room in which there was a fire of peat, and suffered in consequence from symptoms of greater or less severity. All recovered. Three other men under similar circumstances died in the same district not long before. The treatment in the successful cases, and the *post mortem* examinations of the fatal cases, were given in considerable detail.—A discussion followed, in which many members took part, and the opinion seemed general that the toxic agent was most probably carbonic oxide and not carbonic acid, but that the cases were of great interest and value.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS OF IRELAND.

WEDNESDAY, JANUARY 18TH, 1871.

ROBERT LAW, M.D., in the Chair.

DR. HENRY KENNEDY read a paper on the views of Niemeyer regarding Phthisis, from which the author differed in many essential points. He thought that the German professor could have seen only one of the forms, and that an exceptional one, under which phthisis declares itself, namely, where chronic indurations of the lungs were found associated with more or less tuberculous matter, a state of things which led to the idea that pneumonia was the starting point of the disease. But there were some facts which were entirely opposed to this hypothesis. Thus, pneumonia of any kind is very rarely located in the upper lobe of

the lung; whilst, on the contrary, tubercle was in by far the greater number of instances met with in this situation, and was also very commonly found without the coexistence around it of any induration. Dr. Kennedy maintained that the earliest signs of phthisis were not those of pneumonia, for there was neither crepitus nor expectoration at this stage of the disease in question. Speaking of the late Dr. Addison's views, he could not but think that they did not coincide with those of Niemeyer, as many had stated, for the former author ended his paper with the words—"Inflammation is the great instrument of destruction in phthisis"—a sentence which bore quite a different meaning from Niemeyer's views, and yet one from which Dr. Kennedy thought that very few would be found to dissent. In fine, the opinions advanced by Niemeyer did not seem to be supported, in the majority of instances at least, by such data as could be relied on as facts; and, even allowing the morbid state of the lungs, as described by him, to be essentially correct, another and a perfectly different interpretation could be assigned to them.—Dr. HAYDEN, though disposed to differ from Niemeyer in many respects as to his views on phthisis, yet felt bound to defend him as regarded his statements respecting hereditary diathesis in that disease.—Dr. GRIMSHAW, wishing to remove a possible misapprehension of Niemeyer's meaning, stated the sequence of events in the development of tubercular deposits. In the first instance, inflammatory processes occurred in the lungs; next, caseous deposits took place; and, as a result of these, tubercle was developed.—Dr. FINNY further vindicated Niemeyer from the charges brought against him by Dr. Kennedy.—Dr. JAMES LITTLE protested, among other things, against the confounding of ordinary sthenic pneumonia with the "pneumonic processes" of which the author spoke.—Dr. KENNEDY having replied, the meeting adjourned.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, March 2nd.

MEDICAL REFORM.—On Tuesday last, the Right Hon. T. E. Headlam gave notice of motion for leave to bring in a Bill to amend the Medical Act of 1858. The first reading was fixed for Thursday evening, but, owing to the length of the previous debates, it could not be brought on.

MEDICAL NEWS.

THE OBJECTS OF MEDICAL REFORM.

IN an editorial article in the *Pall Mall Gazette* on the subject of medical reform, the statement which has already been made in another leading paper was repeated, that the British Medical Association aims at an amendment of the Medical Act with a view to the regulation of fees, medical etiquette, and such extraneous matters. This was authoritatively contradicted on the following day; and, subsequently, a correspondent of the *Gazette*, writing under the name of Scrutator, having reassumed that the proposed Medical Acts Amendment Bill promoted by the British Medical Association would contain clauses to that effect, Dr. Waters of Chester, as Chairman of the Reform Committee of the Association, has addressed the following letter to the *Pall Mall Gazette*, which is published in its number of March 1.

"In answer to the letter of 'Scrutator' in your issue of to-day, allow me at once to state that the proposed Medical Acts Amendment Bill of the British Medical Association, which is about to be introduced in the House of Commons, will not contain any clauses regulating fees, medical etiquette, or such other extraneous matters, nor has it ever been proposed to do so. It seeks to establish in the manifest interests of the public a good preliminary education, and a sound, general, and practical examination as the 'onc portal' through which every candidate must enter the profession; to prevent the fraudulent assumption of medical titles by impostors, and also to secure for the registered medical practitioners direct representatives in the General Medical Council to the extent of one-fourth of its numbers, in order to neutralise the existing preponderance of the representatives of the corporations."

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, February 23rd, 1871.

Bradley John Perry, Birmingham
Drew, liam Thomas, Stow-on-the-Wold
Fordham John William, Stepney

Moore, Arthur Jackson, Debenham, Suffolk
Reed, James, Stoke, Devonshire
Williams, Henry, Gloucester

The following gentleman also on the same day passed his first professional examination.

Spencer, Edward Richard, University College

As Assistants in compounding and dispensing medicines.

Margetson, James Francis, Aylsham, Norfolk
Turtle, James Henry, Chatham, Kent

UNIVERSITY OF DUBLIN.—At the Hilary Term Examinations, 1871, for the degrees of M.B. and M.Ch., the following candidates passed in the order assigned to their names.—Bachelors in Medicine.

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| 1. Courtcnay, Edward M. | 5. Stoney, Hugh B. |
| 2. Crooslè, Francis C. | 6. White, William R. |
| 3. Floyd, Thomas S. | 7. Lloyd, Rickard E. |
| 4. Thompson, Edward Charles | |

Masters in Surgery.

- | | |
|----------------------|------------------------|
| 1. White, William R. | 2. Crooslè, Francis C. |
|----------------------|------------------------|

At the Spring Commencement, held on Shrove Tuesday, February 21st, in the Examination Hall, Trinity College, the following degrees in Medicine and Surgery were conferred by the Right Hon. Sir Joseph Napier, Bart., Vice-Chancellor of the University.—Bachelors in Medicine.

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|--------------------------|-----------------------|
| Hatchell, Ebenezer John | Lloyd, Rickard Edward |
| Crooslè, Francis Clement | Morgan, John |
| Thompson, Edward Charles | Stoney, Hugh Baker |
| White, William Rogerson | |

Masters in Surgery.

- Crooslè, Francis C.

White, William R.

Doctors in Medicine.

Ellis, John

Morgan, John

MEDICAL VACANCIES.

THE following vacancies are announced:—

BRADFORD (Yorkshire) INFIRMARY and DISPENSARY—Resident Medical Officer to visit Out patients (£110 per annum, with board and residence): applications, to Charles Woodcock, Secretary, Sun Bridge, Bradford, 10th; election, 17th.

GENERAL HOSPITAL, Birmingham—Assistant Dispenser (£40 per annum): applications, 9th, to F. Fowke, House Governor and Secretary; election, 17th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton—Physician: applications, to Henry Dobbin, Secretary, 8th.

KENT COUNTY OPHTHALMIC HOSPITAL, Maidstone—Consulting Surgeon: 18th.

LONDON FEVER HOSPITAL—Assistant Physician: applications, to the Secretary, 7th.

MEATH HOSPITAL, Dublin—Physician.

ST. BARTHOLOMEW'S HOSPITAL—Casualty Physician: applications, to Wm. Henry Cross, Clerk, 11th; appointment, 14th.

ST. GEORGE'S HOSPITAL—Visiting Apothecary: applications, to Charles L. Todd, Assistant Secretary, 8th.

ST. MARY'S HOSPITAL MEDICAL COLLEGE—Professor of Chemistry and Practical Chemistry: applications, to J. G. Wilkinson, Secretary, 6th.

SWANSEA HOSPITAL—Resident Medical Officer (£100 per annum, with board, furnished apartments, coal, gas, and attendance): applications, to John Wm. Morris, Secretary, April 12th; election, 20th; duties, May 1st.

WESTMINSTER HOSPITAL—Surgeon.

WEST NORFOLK and LVNN HOSPITAL—Physician; Surgeon: 14th.

YORK DISPENSARY—Resident Medical Officer: applications, to Secretary, 4th.

[For Poor-law Vacancies see Poor-law Department.]

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BOUTFLOWER, Andrew, Esq., late Senior House-Surgeon to the Manchester Royal Infirmary, elected Honorary Surgeon to the Salford Hospital.

JOHNSON, R. Locke, L.R.C.P.Ed., appointed Physician to the Infirmary for Consumption and Diseases of the Chest, Margaret Street.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

CLARK.—On February 13th, at Dunster, Somerset, the wife of *Thomas Clark, M.D., of a son.

HARDY.—On February 23rd, at Fitzroy Square, the wife of H. Nelson Hardy, Esq., Surgeon, of a daughter.

MONCKTON.—On February 22nd, at Brenchley, Kent, the wife of William Monckton, Esq., Surgeon, of a son.

NUGENT.—On February 23rd, at Colchester, the wife of H. Nugent, Esq., Army Medical Staff, of a son.

VEALE.—On February 20th, at Hampsthwaite, Yorkshire, the wife of R. S. Veale, M.D., of a son.

WARREN.—On February 17th, at Prince's Risborough, the wife of *Thomas Warren, Esq., Surgeon, of a son.

THE TAUNTON and SOMERSET HOSPITAL has become entitled to £2,000 under the will of Mrs. Scott Gould of North Curry.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY .. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY}... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.

SATURDAY St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. H. Royes Bell, "Enchondroma of the Thumb"; Mr. John Gay, "A Case of Stricture, with Specimen"; Mr. John Pennefather, "Obstruction of the Eustachian Tube"; Mr. W. F. Teevan, "Remarks on Stricture."—Entomological Society.—Anthropological Institute, 8 P.M.

TUESDAY.—Pathological Society of London, 8 P.M. The following specimens will be exhibited:—Mr. Marcus Beck, Spindle-celled Sarcoma connected with Posterior Tibial Nerve. Dr. Greenhow, Cancer of Oesophagus with Opening into Trachea. Dr. Dickinson, Spinal Cord in Tetanus. Mr. Weeden Cooke, Medullary Sarcoma of Cranial Bones, associated with Scirrhus of Breast; Scirrhus of the Brain, associated with Scirrhus of the Breast. Dr. Dickinson, Mesenteric Tumour. Mr. Reeves, Tumour of the Thigh. Dr. Hawkes, Rupture of Aorta and Tumour of Brain. Dr. Whiphram, Dissecting Aneurism of Aorta. Dr. C. T. Williams, Aneurism of Aorta bursting into Oesophagus. Dr. Powell (for Dr. Quain), Caries of Vertebrae, with Dislocation of Axis. Dr. Payne, Cancerous Growth in Veins and Endocardium.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Drs. Braxton Hicks and Phillips, "Remarks on Tables of Mortality after Obstetric Operations" (continued); Dr. Brunton, "A Case in which the Ovum was born entire, and the Child rescued alive fifteen minutes after."—Hunterian Society. 7.30 P.M., Council Meeting. 8 P.M., Dr. H. G. Sutton, "On Small-pox."—Royal Microscopical Society, 8 P.M.—Epidemiological Society, 8 P.M. Dr. Seaton (the President), "On the Present Epidemic of Small-pox"; Dr. Grieve, "On Analysis of Eight Hundred Cases of Small-pox observed in the Hampstead Hospital during the Present Epidemic".

THURSDAY.—Royal Society.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Tilbury Fox, "Three Cases of Tinea Circinata communicated from the Horse"; Mr. H. Lee, "Case of Removal of the Tongue for Cancer"; Dr. Duffin, "Case of Roseola Variolosa"; Mr. Christopher Heath, "A Case of Complicated Stricture of the Urethra treated by Mr. Syme's Operation for Impermeable Urethra."—Royal Astronomical Society.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

OUR attention has been called to a statement in the *Lancet*, referring to a letter from Dr. Balbirnie. We have to make the following statements in contradiction of all that is there alleged. 1. It is contrary to the truth that Dr. Balbirnie's letter was, as stated, refused admission to the JOURNAL. Dr. Balbirnie was informed that his letter appeared to indicate a want of acquaintance with the facts and history of medical reform, but that if, after reading the historical summary to be published in the JOURNAL, and acquainting himself with the facts, he should still wish his letter published here, it should appear. 2. It is contrary to the truth that Dr. Balbirnie was, as stated, a member of the British Medical Association at the time of writing his letter. 3. It is contrary to the truth that any other letters whatever on the subject have, as stated, been received here. The Bill in question has received the most complete condemnation which an utterly indifferent silence on the part of the profession could pronounce.

DR. GREENE (London).—1. Duly received. 2. The existence of contagious disease in a centre of population is not fit matter for "a confidence".

VOMITING IN PREGNANCY.

SIR,—Can any of our members help me with a remedy or palliative for an obstinate case of nausea and vomiting in pregnancy?
I am, etc.,
A COUNTRY PRACTITIONER.

MEDICAL ASPECTS OF THE FACTORY ACTS.

SIR,—Thanks to a "Certifying Surgeon" for bringing this very important subject before the profession, through the medium of our widely spread JOURNAL. I quite concur with your correspondent's common-sense view of the matter. It might appear, from what Mr. Redgrave states, that certifying surgeons are really of no use, because their certificates are no proof of a child's age. This is true; and, if certificates be granted for no other purpose, the sooner the services of medical men are dispensed with the better. So far as I can conceive the meaning of the Act, this is not the only object why surgeons are employed to grant certificates. The wording of the certificate itself is sufficient to need no comment. I defy Mr. Redgrave, "or any other man" (whatever the extent of his experience), to tell a child's or young person's age by the development of either dental or personal appearance, within four or six months.

Mr. Redgrave says nothing in reference to the introduction of contagious diseases into mills and workshops. I have frequently in my district drawn the attention of the mill-owners to this visible fact, and withheld certificates until the health has been re-established. If medical inspection and their certificates are to be done away with, who is to judge of the nature and character of the various forms of skin and other diseases common to humanity, which are brought before the notice of the certifying surgeon? These are important items in the programme, if the *physique* is to be taken cognisance of, which Mr. Redgrave seems to think has "not improved in any perceptible degree"—an opinion from which I beg most respectfully to differ. I think that the physical condition of the mill operative is considerably improved, and might be rendered more so by paying strict attention to the proper ventilation and sanitary condition of the mills and workshops, some of which in my district, I am sorry to say, are in a most disgraceful state, which requires Government interference. Well, as regards the non-improvement of the mind and morals of the mill operative generally, if Mr. Redgrave think he can improve either by coercive Acts of Parliament, he will find himself mistaken. The great object, in my opinion, to effect an improvement in this respect, is to *lead* the mill operatives to *see* and feel their position in the world, and what society requires of them, and not to *drive* them by Acts of Parliament to do things from which their ignorant nature revolts. You may by kindness *lead* a Lancashire clodhopper, but you cannot *drive* him against his will. Mr. Redgrave, from his experience of the Lancashire operative, knows this as well as I do.

February 13th, 1871. I am, etc., ANOTHER CERTIFYING SURGEON.

PRIZES.—R.—1. The Prizes of the Royal College of Surgeons. Inquire of Mr. Stone, at the College.—2. The Hastings Medal of the British Medical Association. Apply to Mr. T. Watkin Williams, 13, Newhall Street, Birmingham.—3. The Fothergillian Prize of the Medical Society of London. Inquire of the Registrar of the Society, 32a, George Street, Hanover Square, W.—4. The Baly Medal of the Royal College of Physicians.—There are also various foreign prizes, particulars of which can be obtained by communicating with the Secretaries of the various Academies. Many of them will be found noticed in the back numbers of the JOURNAL.

PROPAGATION OF DISEASE.

SIR,—I think I never heard of so arrant and unpardonable act in the propagation of disease as the following. On January 30th, Georgina Jemmett, of Egham, went to service in Tothill Street, Westminster. She was there allowed to occupy a bed which had been vacated a week before by her predecessor, who was sent home, on account of ill health, to Staines, where she died of small-pox. On February 9th, G. J. felt ill, and complained to her mistress, who sent her to the doctor. He prescribed rest and a mixture. On February 13th, she again visited the doctor, who told her she had small-pox. Her mistress sent her home to Egham that day. She was driven in a cab to Waterloo Station; she took a second class ticket, and travelled hither in company with others in the same compartment. Upon arriving at Egham Station, she walked home; and, at 2.50 P.M. the same day, I saw her with the papules of variola all over her body.

Surely such gross neglect of all sanitary laws deserves punishment. Is there no means of avoiding such risk? Is the railway company to be blamed for conveying her? or is the mistress to be reprimanded for allowing her servant, with the eruption of small-pox about, to travel in the company of healthy persons a distance of twenty miles or more? I am, etc., H. WILLAN JACKSON.

Egham Hill, Surrey, February 20th, 1871.

* * If Mr. Jackson be correctly informed, the persons who hired the cab and who took the ticket are liable to indictment and punishment under the Sanitary Act 1866, and ought to be so punished. If Mr. Jackson were to communicate with the Home Office, or with the Medical Officer of the Privy Council, on the subject, he would render a service. Such acts ought to be stopped.

THE UNIVERSITY OF ST. ANDREW'S.

SIR,—At a time when the common-sense of the public and the profession is irresistibly bringing us to a sound unification of medical licence, the effort of the St. Andrew's Medical Association to extend the privilege granted their University, is of all recent medical schemes the least likely to be successful, and, it being so, their effort is in the highest degree inexpedient. What claim has St. Andrew's to extraordinary privilege? If she have no medical school, and scarcely a medical element, except that at her examinations drawn from other Universities, this is *not* a reason for *increasing*, but the justification of law in having diminished her medical authority. There can be no question that professional ambition should not be bounded by the competent examination intended for the general licence, which should be a *sine qua non* to medical practice, nor should a medical man be obliged to leave his home long when desiring to prove his qualification for any subsequent degree—it would be often ruinous for him to do so; but already there is no necessity, since the London University permits examination without residence. Why, then, should extended privileges be granted to St. Andrew's? I see no cause to doubt that the imposed examination would be a good one. Still, if it approached in stringency that of the London University, as under the proposed condition it must, who, I ask, would go to St. Andrew's? I make these remarks in no insolent nor partisan disparagement of her present and past medical degrees. I have no interest that can sway me. My view is favourable rather than otherwise to the conditions of examination at St. Andrew's, to the extent of the examiners being eminent men chosen from other Universities, and unknown to the candidates. It is utterly unlikely that such men would pander to the unjust award of medical degrees. I entirely believe in an ample medical examination at St. Andrew's; but as medical knowledge and even a moderate amount of scholastic learning are not always companions, many men have been enabled to obtain the degree who are laughably, sorrowfully, or contemptibly deficient in scholastic education; and in what Dr. Henry R. Wright says on this subject I entirely concur; and, in its own especial way, the same is fully implied in B. J. C.'s letter. I believe, though,

it is true that ant of enforced primary education applies, or has till very recently applied, to *all* medical degrees obtained in Scotland, and to some of them much more than to that of St. Andrew's; but it is not now likely that any great scope in medical degrees will be granted to an University having no internal medical element; and, even in awarding the present anomalous privilege to St. Andrew's, the Government have clearly not forgotten the extreme service she has rendered during four hundred years to education in Scotland. Let St. Andrew's use her ample resources for the higher preliminary training in letters and natural science of young men intended for the medical profession, but let not the preceding success of her advocates excite a hope which surpasses the bounds of all reason.

February 21st.

I am, etc.,

PROBE.

A SUGGESTION TO MEDICAL REFORMERS.

SIR,—With the proposed reconstruction of the General Medical Council, it will become a representative body of the whole profession; and, as such, will naturally be entrusted with powers much greater than those it now possesses; but, strangely enough, and, I think, unconstitutionally, it has been proposed to give the power of appeal from the General Medical Council to the Privy Council, a body, I need not say, totally unconnected in any way with the medical profession, and, as at present constituted, surely incompetent to form a correct judgment on delicate and disputed points of medical polity. In any broad and statesmanlike scheme of medical reform, some provision ought to be made for the better representation of the profession on the Privy Council; I would therefore venture to suggest that, as in ecclesiastical appeals, an Archbishop, as a Privy Councillor, sits on the Committee of Council appointed to hear such appeals, so the President of the General Medical Council, being constituted in virtue of his office a Privy Councillor, should be a member of the committee appointed to hear medical appeals and decide in sanitary matters. This plan, I think, would remove the many objections there are to giving extensive appellate powers to the Privy Council, and would at the same time avoid placing the whole profession under the control of the medical officer of the Privy Council. If you think this letter worthy of attention, will you kindly give it place in your columns? I am, etc., MEDICUS.

Ripon, February 20th, 1871.

SIR,—Your Dublin correspondent is incorrect, when he states in your last issue that "about six cases of mild varioloid have appeared in Dublin", and that the contagion may have been conveyed from Liverpool. Small-pox, or varioloid if you wish, has been for some time in this city, and I fear that more cases have occurred than are publicly known or recognised. I had a severe case of small-pox as far back as January 16th last. It was the cohering form, and occurred in a gentleman who had been vaccinated, but whose cicatrices were scarcely visible. The only modification about the case was the absence of secondary fever: all the other symptoms, including delirium and salivation, being present; the eruption also ran its regular course. A gentleman living in the same house with him, a short time after returning from Leeds, got a modified form of the disease, which the medical attendant termed a "blind pock". When asked whether it was contagious, he replied that adults might go near the patient without any danger of taking the disease; but children were not to be allowed to do so. The consequence was, that my patient sat reading to his friend with the "blind pock", and caught it; and, though the latter admits that his friend's case was one of small-pox, he will not admit that his friend caught it from him, such faith has he in his doctor. What, therefore, can be expected from an ignorant public, in checking the spread of contagion, when men of superior attainments disseminate such illogical and dangerous information? It is high time for a Medical Act with an "one portal" system.

February 20th, 1871.

I am, etc.,

VARIOLOPHOBIC.

A QUESTION OF ORTHOGRAPHY.

SIR,—A lady asked me the other day why medical men say small-pox, and spell the latter word *p-o-x*; and, also, why they say cow-pocks, and spell this word *p-o-c-k-s*. How shall I reply to this question? I am, etc., ONE PUZZLED.

* * The synonym of vaccinia is not always spelt as our correspondent describes. Drs. Aitken and Tanner, in their works on Medicine, both use the word cow-pox, spelling the word with *x*. In strict etymology, *pocks* is correct; but custom has sanctioned the conventional use of *x* to represent the terminal consonants of the word.

CORONERS' INQUESTS.

SIR,—Would you kindly, through the medium of your valuable JOURNAL, inform me as to the law in the following case?

Mrs. H., wife of a powerloom weaver, left her house on January 11th for about half an hour, to purchase some necessities for dinner, leaving at home her two children, aged respectively nine years and three. In her absence, the clothes of the eldest, a girl, while she was doing something about the fire, ignited; and, before assistance could be had, she was rather severely burnt about the back and arms. I was called in immediately, and dressed the burns with a solution of carbolic acid in forty parts of olive oil, and left the child pretty well. She continued to improve daily; the sloughs separated, leaving healthy granulating sores, one on the back, and smaller ones on each arm. She continued to improve until January 25th, on which day tetanus set in; and notwithstanding the liberal administration of chloral hydrate, milk, beef-tea, both by mouth and enemata, she gradually became worse, and expired on the morning of Saturday the 28th. I filled up a certificate for the Registrar, putting in as causes of death, "Accidental Burning, duration seventeen days; Tetanus, four days"; and as the mother was within a few days of her confinement, and in great distress about her child, I added a note to the Registrar, stating that, as I had seen the child from day to day, and that as death resulted from the tetanus, it was not, in my opinion, a case requiring an inquest. He accordingly gave a burial certificate, and the child was interred on February 1st. A day or two afterwards, it came to the ears of one of our local constables, who immediately called on me to see why he had not been consulted on the matter; and the replies evidently not being satisfactory, he threatened to report the case to the coroner, which I told him he was at liberty to do. The result was an order from the coroner for the exhumation of the body, and an inquest, which was held to-day. In the course of my examination, I was informed by the coroner, that "where a death results directly or indirectly from accident, no medical man *dare* sign a certificate"; that in the present instance I had "clearly broken the laws of the country"—a thing which I certainly had no intention of doing—and on that ground I was not entitled to a fee; nor did I get one. These being the facts of the case, may I ask—(1) When should there be, and when should there not be, a coroner's inquest? (2) Is a medical man *bound* to give evidence at an inquest when called upon to do so? (3) In death resulting indirectly from accident, is it illegal to sign a Registrar's certificate? and (4) in such a case, is it the business of the medical attendant to inform the police or coroner of the death?

Apologising for occupying so much of your space,

I am, etc.,

M.

QUEENWOOD COLLEGE, HANTS.—Several medical men educated at this establishment have taken the highest honours at the University of London, and the College can now boast of having had, as one of its students, the Senior Wrangler of the present year at Cambridge. John Hopkinson was a student for five years with the present principal, Mr. Willmore. In 1865, he entered Owen's College, Manchester, where he held in succession the junior and senior doctor scholarships. In 1867, he matriculated in honours at the University of London, and took the degree of Doctor of Science in 1870. He gained at Cambridge the Senior Mathematical Scholarship, a Foundation Scholarship, and the Sheepshanks Scholarship. In 1869, he gained a Whitworth Scholarship. He is in his twenty-second year.

DILUTION OF LYMPH.

SIR,—Mr. J. P. Baker, in a communication on vaccination, observes, that for some years past he had been in the habit of diluting the lymph with one-third of glycerine. I have followed this plan for some time, and I am satisfied of its advantages over dry lymph. I have diluted the lymph to a larger extent than one-third, and the success of my vaccinations and revaccinations is as great as when I used undiluted lymph. As a rule, I dilute the lymph with about ten parts of glycerine, and from one glass I have performed twelve successful revaccinations. My impression is—the lymph is preserved by the glycerine, and it may be diluted much more than ten times without perceptible loss of energy.

Redcar, February 25th, 1871. I am, etc., GEORGE OLIVER, M.B.Lond.

THE BABES OF COLSTERWORTH.—*I*de BRITISH MEDICAL JOURNAL, Feb. 25th.

In sixty-five
Was then alive
At Colsterworth, James Dickson;*
And let us hope
It is no trope
That he was not old Nick's son;
And that he did not scotch or leaven
The good work done by Priest and Heaven.

F. R.

February 25th, 1871. *L.R.C.S. Edin., L.S.A. Glasg.

A CURIOSITY IN MEDICINE.

SIR,—Seeing a paragraph in your last week's JOURNAL headed as above, I send you particulars of a somewhat similar case. On January 28th, I was called to see a lady whom I had previously attended for a severe bilious attack about eighteen months ago. Her symptoms were much the same as at the time when I was first consulted, excepting that she did not vomit bile, but had severe retching. On the following day (I quote her own words), "she told me that she had read of a horrible case of small-pox in the newspaper; that she read part of it and felt faint; that, 'woman-like', she took it up again, and then felt sick and ill. On the following morning, she told her husband that she should have small-pox badly; and that it would go hard with her." On the 29th, I noticed an eruption on the forehead; and, on the 31st, she had small-pox eruption over the whole body. She had made up her mind to die, and did so on February 2nd. This case I think interesting, as the patient had not been into any house for six weeks, and is the only case of small-pox that has occurred in the house in which she was living. I think there are many ways in which this disease is propagated, and amongst them I will name three: 1. Fright; which I believe to have been the cause of her taking the disease: 2. Sending bed and bedding to a public auction room; which would have been done had I not prevented it: 3. Sending infected clothes to the laundress.

If you think this case worthy of report, I shall feel obliged by your inserting it.

I am, etc., GEOFFREY VEEL COOPER.

3, George Street, Euston Square, February 20th, 1871.

INCONTINENCE OF URINE.

SIR,—I should be greatly obliged if any of your readers could help me to a remedy for incontinence of urine in a lad aged nine years. Urine runs from him continually, both night and day. He has no stone, or adherent pressure, or local abnormality. I have tried all sorts of tonics and the reputed stimulants, such as tincture of cantharides, and also chloral, but with no improvement. I should say he is of struinous stock.

I am, etc., G. H. S.

MEDICAL POLEMICS.

SIR,—It is obvious that the JOURNAL is regularly analysed by the editor of a contemporary, who is alternately stung by "British Medical Assurance" and "British Medical Quiescence"; and is as much rejoiced at the analysis of a printer's error, as he is frenzied by the contemptuous silence of the JOURNAL. Your rival laments over the barrenness of his weekly labour of analysis. Will you allow me to endeavour that your rival may find his work this week productive? I would make a suggestion in the interest of a much neglected section of the medical public. I propose that all articles, correspondence, and writing of any sort, which bear on the political agitation of the moment, should be printed as an appendix, and issued in a separate form with each copy of your contemporary. Those who purchase medical papers for the sake of the professional and scientific matter which they contain, would thus be able to put the appendices in the fire, and preserve only that which is presumably of value to them. Those, on the other hand, who find polemical writing, of whatever complexion, especially to their taste, would be able to shelve the science for future binding, and surfeit themselves with controversy at their leisure. To a man of quiet, though in these times I fear mistaken, tastes, it is irritating to be disturbed with the views of this journal upon the conduct of that; awful denunciations of all guilds; pictures of the utter degradation which is reserved for the profession if somebody's scheme be not eagerly supported, and somebody else's as heartily down-trodden. It is more irritating to find such disputation systematically intercalated with the text, so to speak, "Renovat pristina bella, nec potest quiescere." The British medical public is to be congratulated that such is not the motto of at least one medical paper.

I am, etc., X.

Newcastle-upon-Tyne, February 27th, 1871.

DENTAL PUFFS.

SIR,—Allow me to call your attention to the enclosed paragraph from the *Standard* of February 10th, headed "Improvements in Dental Surgery." Much has been done by the influence of your JOURNAL to purify the papers by persuading them to exclude the advertisements of obscene quacks and of baby-farmers. The danger from such puffs as those above is less in degree and different in kind: but can you not complete the service by protesting against the insertion in respectable papers of professional puffs of the most unblushing character, under the mask of pseudo-editorial articles?

I am, etc., HENRY SEWILL.

** The paragraph enclosed is a long, fulsome, and discreditable puff of an advertising dentist, which appears as an editorial article in the *Standard*. The conductors of that paper must certainly have been caught nodding when its insertion was obtained.

DR. ASPINALL (Haslingden).—Held over, with thirty other pages of printed matter, from pressure on space.

WHAT'S IN A NAME?

SIR,—If the "Babes of Colsterworth" are blessed, what must the patients of St. Thomas's have been in 1854, when the three dressers on duty were *Brake, Wrench, and Slaughter*, all of whom afterwards entered the army and navy?

February 28th, 1871.

I am, etc.,

JACOB.

DR. DAVID MICKLE (Ripon).—The authors of the work have been struck off the lists and register, and have disappeared from the locality named.

SMALL-POX REGULATIONS.

SIR,—During the prevalence of small-pox last year in the town of High Wycombe, a Committee was formed to administer support to those suffering from the disease, and I was requested to draw up a code of rules, which were printed on cards and given to each patient suffering from small-pox. I enclose you a copy of the rules, and I can only say the plan answered admirably, and by strict attention to the rules the small pox soon left us. An inspector had to visit each house every day, and gave his orders to his subinspectors, who carried the necessary food and medicine to each house; and when the house was clear of the disease, it was thoroughly fumigated with oxide of manganese, chloride of sodium, and sulphuric acid, then the next day whitewashed. In using the fumigation, all the windows and fire-places were tightly closed. I had the rooms in the Union House fumigated in this way, after a case of small-pox, and not a single case afterwards happened there. If these suggestions are of any use, I shall be glad if you will insert them in your JOURNAL.

I am, etc., R. M. BOWSTEAD,
Medical Officer to the Wycombe Union House.

High Wycombe, February 28th, 1871.

Rules to be observed by those suffering from Small-pox. (By order of the Committee.)—1. The house shall be closed to all intercourse with neighbours, and none of the inmates shall leave the premises without the permission of the medical attendant.—2. Whenever a sheet, towel, handkerchief, or any other article of clothing is removed, it shall at once be put into a tub or bucket of water disinfected with chloride of lime or McDougal's powder, which will be supplied by the inspector.—3. Regularly every day some chloride of lime or McDougal's powder shall be sprinkled about the room, and the room shall be swept every morning.—4. Whenever the bed-pan or other utensil is used, a little chloride of lime or McDougal's powder shall be put into it.—5. Whenever a patient uses a knife, spoon, or fork, it shall afterwards be well washed in hot water.—6. If a garden be attached to the premises, a hole shall be dug, and the contents of the bed-pan or other utensil shall be thrown into it, and then sprinkled over with a little mould.—7. Cleanliness is to be observed as much as possible.—8. No neighbour shall be admitted into the house, nor shall any inmate go into a neighbour's house.—9. All orders for nourishment or medicine for the day shall be given to the inspector when he comes round, and he shall direct his assistants to bring them to each house.—10. Ventilate the room twice or thrice a day, when fine, by opening the windows, and leave the patient well covered, to prevent taking a chill.—If these rules are strictly attended to, the Committee will assist all as much as possible, and if they are infringed the Committee will withdraw their support.

R. H. C.—We do not think that a physician of the present day can be regarded as breaking any conventional rule if he vaccinate patients whom he is in the habit of regularly attending.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, Feb. 11th; The New York Medical Record, Feb. 16th; The Boston Medical and Surgical Journal, Feb. 16th; The Madras Mail, Dec. 19th; The Shield, Feb. 25th; The Philadelphia Medical Times, Feb. 15th; The Waterford Mail, Feb. 20th; The Essex Times, Feb. 25th; The School Board Chronicle, Feb. 25th; The City Press, Feb. 25th; The North Wilts Herald, Feb. 20th; The Oswestry Advertiser and Montgomeryshire Mercury, Feb. 22nd; The Birmingham Money News; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. George Harley, London; Dr. Sheen, Cardiff; Mr. H. R. Swanzy, Dublin; Dr. Greene, London; Mr. Orton, Bedworth; Dr. Clarke, London; Dr. Fairless, Bothwell; Dr. W. Kennedy, Canisbay; Messrs. Fannin and Co., Dublin; Dr. H. P. Kraus, Vienna; Mr. Sargent, London; Dr. James Ross, Elgin; The Secretary of the Pathological Society; Dr. Phillips, London; The Secretary of the Obstetrical Society; Mr. H. C. P. Masser, Coventry; Mr. A. Boufflower, Manchester; Dr. Aspinall, Haslingden; Mr. E. F. Weston, Stafford; Mr. Henry Rope, London; Mr. George Lawson, London; Mr. J. Lister, Edinburgh; Dr. Weddell, Preston; The Secretary of the Clinical Society; Mr. G. V. Cooper, London; Mr. J. W. Burman, Exminster; Dr. Clifford Allbutt, Leeds; Dr. E. Waters, Chester; Mr. C. Holmes, Slough; Mr. Benson Baker, London; Mr. W. H. Spencer, Newcastle-on-Tyne; Mr. Fairlie Clarke, London; Mr. J. F. Evans, Sheffield; Dr. T. B. Bott, Bury; Mr. W. P. Brookes, Much Wenlock; Dr. Savage, Alston; Dr. J. Hill, Belfast; Mr. E. J. Chapman, London; Mr. H. Hughes, Blackheath; Dr. C. Parsons, Dover; Dr. Littleton, Plymouth; Dr. Gibbon, London; The Secretary of the Social Science Association; etc.

LETTERS, ETC. (with enclosures), from:—

Mr. Campbell De Morgan, London; Dr. G. Buchanan, Glasgow; Mr. Erasmus Wilson, London; Mr. T. H. Bartleet, Birmingham; Mr. Wm. Mac Cormac, London; Mr. H. Smith, London; Dr. C. Handfield Jones, London; Our Edinburgh Correspondent; Dr. Robert Barnes, London; Mr. Wm. Adams, London; Our Dublin Correspondent; Dr. Bradbury, Cambridge; Dr. Joseph Bell, Edinburgh; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Mr. Waren Tay, London; Dr. G. H. Philipson, Newcastle-upon-Tyne; Dr. A. Mackintosh, Callington; Mr. J. Cross, London; Dr. T. K. Chambers, London; Dr. Purvis, Greenwich; Mr. E. J. Worth, West Anderton, Millbrook; Mr. G. F. Hodgson, Brighton; Mr. J. P. Baker, London; Mr. Watkin Williams, Birmingham; Dr. Forbes Winslow, London; Dr. George Johnson, London; Mr. Jebb, London; Mr. Berkeley Hill, London; Dr. Forbes Winslow, London; Mr. E. Y. Johnson, Syracuse Mission; etc.



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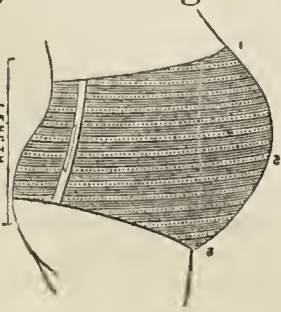
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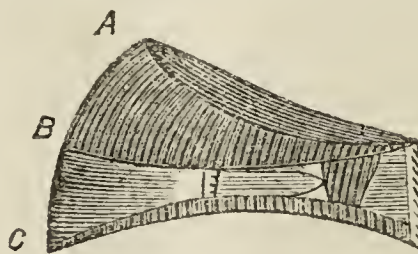
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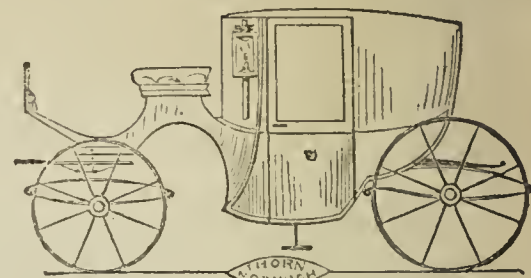
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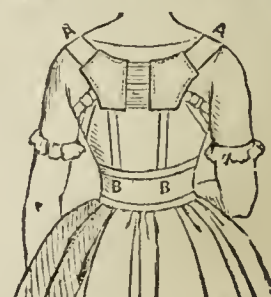
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GULSTONIAN LECTURES ON THE HEAT OF THE BODY.

DELIVERED AT
The Royal College of Physicians, London,
MARCH 1871.

By SAMUEL J. GEE, M.D., F.R.C.P.,
Assistant-Physician to St. Bartholomew's Hospital and to the Hospital for Sick Children.

LECTURE I.

MR. PRESIDENT,—Sir, when yourself and the Censors of the College honoured me by a request that I would undertake the Gulstonian Lectures for this year, my mind at once turned to the topic of Fever. I did not forget that it is only sixteen years since Dr. Parkes, upon the same occasion as the present, chose that very theme, and handled it in a manner which still lives, I doubt not, in your memory. And when I began to think of what might be fairly looked for from him who should profess to set that subject forth in a fashion at all worthy of our present knowledge; when I considered how fever, which includes almost the whole pathology of animal heat, is itself only a portion of the physiology of animal heat; when I saw how the physiology of animal heat had always been a reflex of the current doctrines concerning heat in general: led on in this way from medicine to pathology, from pathology to physiology, from physiology to chemistry and physics, the horizon of my subject spreading ever wider and wider, I became, I must confess, afraid of it. But just as the difficulty of the subject, so is its importance. That "heat is the source of life", was taught by philosophers of extreme antiquity, before the physical sciences can be said to have existed; and we, after the experience of nearly three thousand years, seem likely to recur to an opinion not very dissimilar. Be this as it may, that which most concerns us as physicians—the doctrine of fever—is now, always has been, and always will be, one of the most attractive branches of pathology. For these reasons, I determined not to forsake my earliest purpose, hoping that I might be able to give such a view of the present state of science on this behalf as would not be altogether unworthy the attention of a learned assembly like that which I now address.

I have just spoken of the difficulties which are due to the largeness of a subject, from which, indeed, we may wander on almost every side into infinity; but throughout these lectures I shall earnestly seek to ask your attention to those topics alone which may be strictly deemed to belong to the knowledge of a physician. And, having said this, I now, Sir, feel less loath to delay our entry into the physiology of animal heat until we have made a short inquiry as to what physics have to say upon the subject of heat in general. And this, haply, may be more needful, inasmuch as the last thirty years have seen doctrines, which dated back to the very beginning of knowledge, finally given up. The old or the material theory concerning the nature of heat, born in the earliest age of Greek philosophy, lived on, under various guises, until the year 1842. Fire was a form of matter—matter in its most attenuated state: a conception which would be found less difficult by the ancients, because they did not associate necessarily matter and weight. Fire, though a substance, need not have weight—being, in the speech of fifty years ago, an imponderable element. Doubtless those four first qualities of things which were supposed to mould the universal substance into its elementary forms—the hot quality and the cold, the moist and the dry—were a kind of foreshadowing of the modern doctrine of forces. Nay, the very word, *δυναμεια*, seems to have been applied to those prime properties. Nevertheless, the material notion of heat was always uppermost. And no wonder, for of the eternity and mutability of matter the Greeks had attained to clear ideas. The eternity and mutability of force it was reserved for our own age to develop. The phlogiston of Stahl and the caloric of Lavoisier (the matter of fire, *matière de feu*, Wärmestoff) were merely the old fire under new names.

Physicians, Sir, must always feel deep interest in the modern theory of heat; for it was first worked out by a physician. Dr. Julius Robert Mayer, practising in the little town of Heilbronn, in the kingdom of Würtemberg, first unfolded the modern or dynamical theory of heat.

Mayer's earliest publication, *On the Forces of Inorganic Nature*, appeared in 1842. In 1845, he brought out a treatise upon *Organic Movement*; and this is, for our purposes, his most important work. You will remember that, about the same time, Dr. Joule of Manchester, working at a part of Mayer's argument, came, by way of experiment, to the very same conclusions concerning the mechanical equivalent of heat at which Mayer had arrived from the opposite direction. Mayer's process was wholly *à priori*. He starts, in his first tract, from the axiom that the cause is equal to the effect; and of his second book the fundamental fact is simply this, that nothing can come of nothing. And in both these treatises of Mayer's there is not a single experiment, scarcely a single observation of his own; so that Joule's empirical method came as a most timely support to the much more comprehensive scheme of Mayer. To be sure, the dynamical theory of heat had been vaguely hinted before Mayer's time—notably by Lord Bacon in the *Novum Organon*. But the indestructibility of force is Mayer's real thesis, of which the dynamical theory of heat is only a portion.

We are now to look upon heat as an accidental state of matter, a mode of motion—molecular motion: in fact, a form of force. We are to regard power as indestructible, but as existing under different forms—forms which are interchangeable, and which, just as was said about the elements of old time, run a perpetual circle, multiform, and mix and nourish all things. One fact which we shall have continually brought before us hereafter is this: that any kind of force may exist in two conditions—the tension-force and the living force of Helmholtz: tension-force, the *vis inertiae*, the force which lies latent in the *status quo*, the force present in the spring of a watch which has been wound up, the force present in a quantity of gunpowder which has not been exploded, the force present in a Leyden jar which has not been discharged: and next, living force, *vis viva*, the force made manifest by change of state—as, for example, in the cases just alluded to, the force which is set free by the uncoiling of the watch-spring, by the explosion of gunpowder, by the discharge of a Leyden phial.

There is no mistaking the great influence which this theory has exerted upon physiology. It will, I trust, be an useful clue to the whole remainder of our subject, if I read a passage from the beginning of a small paper upon fever, which Mayer published in 1862. "Let us set before our eyes", says he, "a strong and active man of middle age, whose bodily frame we may conceive to keep upon the whole a constant state, through all the changes of life, for days, weeks, months, and years. The body of this man is continually producing heat, heat which is given up to the surrounding things of lower temperature than he; but at the same time this man is performing, day by day, a certain amount of mechanical work by setting free the living force of movement. This mechanical power, however, changes into heat by friction, impulse, compression of the air; and the heat, thus indirectly generated, is the equivalent or measure of the work performed. Let us reckon together the heat directly given off from his body and the heat produced indirectly by metamorphosis of work, and the sum total will be the equivalent or measure of a chemical process which has been going on in his body at the same time. The lungs take up electronegative oxygen; the stomach, on the other hand, takes up electropositive matter in the form of food and drink; and the final result of a succession of vital processes is that these substances are thrown out again, but with a change of form and loss of force. They were taken up in a state of chemical isolation; they are thrown out in the combined or burnt condition."

It is my purpose to deal, first, with the production of animal heat; next, with its loss; and, in the third place, with the balance struck between these two processes, namely, the temperature of the body. The last topic will be most interesting to us, as physicians, bringing along with it, as it does, a discussion of the theory of fever. And, therefore, to the subject of the temperature of the body I shall devote the second and third lectures.

Let us, then, proceed to an examination of the sources of animal heat. Three theories concerning its origin have at sundry times held sway; namely, the theory of innate heat, the mechanical theory, and the chemical theory.

And, first, of the theory of innate heat, which shall not detain us long, and yet which I am loath to pass altogether by; for do we not sometimes hear it said that the old expression, augmented innate heat, reflects our modern notions of pyrexia? In a few words, then, I will endeavour to recall to your mind the nature of the ancient conception of innate heat. It has all the look of being the offspring of some such meditation as engendered the fable of Prometheus, or the old Persian faith. Ancient physiology, however, and with it the doctrine of innate heat, first took definite form in the hands of Pythagoras and his immediate successors. And the physiology of Pythagoras is of the same kind as the chemistry of Paracelsus and the geology of Thomas Burnet—a

fruit of the imagination working almost without materials, and almost without the aid of any other faculty; apt for nothing but to breed what Bacon calls vermiculate questions, and best set forth in that famous passage of the sixth *Æneid*, where we read of the spirit or breath which feeds the inward parts, the mind which agitates the mass, whence spring man and beast, and then the nature of that internal vivifying force—

“*Ignæus est ollis vigor et cœlestis origo
Seminibus.*”

Beyond this physiology the Greeks and Romans did not advance, except in a few directions. Hippocrates, indeed, separated medicine from philosophy; but no Hippocrates arose to do the same good service for physiology. Hippocrates himself shunned physiological questions; the other writers of the Hippocratic treatises were of the Pythagorean school. Let us glance for a moment at the little books, on the Heart, on Fleshes, and on the Nature of the Bones. Heat is immortal, and the source of all life. The heat of the body is innate or connate, born with us. The blood is the hottest of all the humours, because the innate vital heat is seated in the blood, “where life and life’s companion, heat, abideth”; hence the chest is the hottest part of the body, and the heart the hottest part of the chest, because containing most blood. The heart is the fountain of the blood and the source of the arteries, the liver being the source of the veins; and just as the vital heat of the liver tempers food into blood, so is the air, which is drawn into the heart during its diastole, tempered by the heat of the left ventricle into the animal spirits, which are dispersed through the whole body during the heart’s systole. Doubtless it would not be difficult to discover in all this a dim foreboding of great truths.

The theory of innate heat survived, little changed, until the middle of the seventeenth century. From 1550 to 1650 many books upon this topic were published, written by those who were the last of their race. I have looked over four or five of these treatises—read them I cannot say, for no reading, possibly, could be more stale and unprofitable—the old, old quotations from Galen and Aristotle, hashed up for the hundredth time, and seasoned by some monstrous new hypothesis. Metaphysical physiology was run quite upon the lees; but Harvey had already appeared.

Two theories grew up to fill the void left by the death of the innate heat hypothesis, namely, the mechanical and the chemical; and, for reasons which are not far to seek, the mechanical theory was earliest ripe: nevertheless, it will be most convenient if we deal with the chemical theory first. The chemical theory of animal heat dates from the year 1777, but it had been anticipated many centuries before. I must ask you to accompany me back to the first experimental physiologist—I mean Galen. His book on the *Use of Breathing* will enable us to ascertain his views concerning animal heat. He declares that the chief use of respiration is to maintain the innate heat. He alludes to the common comparison between the heat of the body and that of a flame. “Now if”, says he, “we could only find out why flames are extinguished for lack of air, perhaps we should also discover what it is which animal heat finds useful in respiration. When I see a furnace going out because it could not breathe, and then, when opened, to expire much smoke and inspire much pure external air, and, both these acts performed, to give a bright flame, I argue that it is no small use of expiration to evacuate that which in the blood corresponds to smoke; for we are a spark, and smoke and all excess of burnt material of this kind put out a fire just as water does; wherefore, they are most to be believed who teach that animals breathe for the sake of their internal heat. Now, fanning and cooling in moderation are both useful, for they both seem to increase the internal heat; and it is also necessary to expel the fuliginous matter, so to speak, which is in excess by reason of the burning of the blood. Wherefore, from fanning the source of the internal heat, and next, from moderate cooling of it, and thirdly, from the evacuation of all that which is like unto smoke, from these we collect one sum, which is the preservation of natural heat.” I feel sure that I need not apologise for reading these remarkable passages. We moderns call fanning oxidation, and smoke carbonic acid.

Let us return to the middle of the seventeenth century, and there we find a young man of honourable memory, John Mayow of Oxford, with a spirit of scientific prophecy worthy of Galen, discussing the nature of oxygen exactly one hundred years before oxygen was discovered. I am tempted to string together a number of propositions, wonderfully acute, drawn from Mayow’s book, but I forbear. What more remains but that chemists should prepare these things which have been so long foreseen?

Black led the way by the discovery of fixed air in 1754, and the chemical theory of animal heat at once became more precise. Black himself revived the forgotten doctrine of Galen, that the air, by passing through the lungs, undergoes the same changes as by supporting combustion; and he added the important fact that fixed air, or carbonic acid gas,

is evolved. Inflammable air was discovered by Cavendish in 1766; and, lastly, in 1774, Priestley made the greatest discovery, of dephlogisticated air.

Priestley discovered oxygen, but Lavoisier discovered oxidation. In a succession of *Mémoires* which appeared between 1777 and 1789, Lavoisier maintained the following propositions. First, the oxidation which goes on in the body suffices to account for the heat produced, or at least for the greater part of that heat. He put a guinea-pig into a calorimeter, and found that in ten hours the animal had set free heat enough to melt 341 grammes of ice at the freezing point. He collected the carbonic acid expired during the same time, and found that it corresponded to a quantity of carbon which would, by combustion, evolve heat enough to melt 326 grammes of ice: 341 parts of heat were produced, and 326 of these were accounted for by the combustion of carbon. Next, Lavoisier found that of 100 parts of oxygen inspired, only 81 parts were expired in the form of carbonic acid—that is, 19 per cent. of the oxygen is disposed of some other way; and he suggested that it went to the combustion of hydrogen, so as to form water. And in his last *Mémoire* he summed up his doctrines thus: “The animal machine is chiefly governed by three regulators; respiration, which burns carbon and hydrogen, and furnishes heat; transpiration, which increases or diminishes according as it is necessary to get rid of more or less of this heat; and, lastly, digestion, which gives up to the blood as much as it loses by respiration and transpiration.”

Lavoisier’s theory we still accept as fundamentally true. In the words of Mayer, “the sole source of animal heat is a chemical process, in specie an oxidation process”; that is to say, a process by which complicated substances containing much tension-force are taken up by the body, and other simpler substances containing much less tension-force are cast out: the loss of tension-force being equal to the sum of force which the animal sets free. And this living or free force is, in the case of an animal at rest, of one kind only, namely heat.

You will have anticipated me when I go on to remark that the oxidation-theory is not so simple as at first it seems. Explanations and reservations must be made; to which I now ask your attention. We will discuss in order the following propositions: that the combustion-heats of the compounds burnt in the body are not the same as the combustion-heats of the elements of those compounds; that the oxidation of much of the combustible of the body is incomplete: that oxidation will not account for all the heat which the chemical processes of the body set free.

First: the combustion-heats of the compounds burnt in the body are not the same as the combustion-heats of the elements of those compounds. The body does not burn pure carbon and hydrogen; and the heat yielded by oxidation of any kind of food cannot be estimated from the heat yielded by oxidation of an amount of carbon and hydrogen equal to that contained in the given kind of food. Nor, on the other hand, can the total heat set free be calculated from the quantity of oxygen contained in the final oxidation-products, water, and carbonic acid. Hence the chemical problem becomes extremely complicated; neither is chemistry at present able to solve it. Most organic products are already oxidised, and their oxygen seems not to behave like free oxygen. In like manner, carbon and hydrogen, in composition, afford different amounts of heat in different compounds. These facts have been well illustrated by Berthelot. He found that sixteen grammes of oxygen, employed in converting carbon into carbonic acid, carbonic oxide into carbonic acid, hydrogen into water, and formic acid into carbonic acid and water; he found, I say, that the same quantity of oxygen, employed in each case, afforded respectively 47,000 units of heat, 69,000, 69,000, and 96,000. And, reversing the problem, he found that the same quantity of carbonic acid, produced by complete oxidation of carbon, carbonic oxide, formic acid, and marsh-gas, gave 94,000, 69,000, 96,000, and 210,000 units of heat respectively. For physiological purposes this difficulty has been surmounted by Dr. Frankland, in a paper published in 1866. Dr. Frankland experimentally ascertained the heat evolved by combustion of different kinds of food. He mixed about two grammes of a given substance with nine grammes and a half of chlorate of potash and a little oxide of manganese: he then fired the mixture in a calorimeter. The result of these investigations showed that most heat was evolved by fatty and oily kinds of food; next in order came starchy and saccharine matters; and lastly, muscular flesh. At the top of Dr. Frankland’s list stands cod-liver oil, of which one gramme evolves 9,107 units of heat, that is to say, combustion of one gramme of cod-liver oil would suffice to raise more than 9,000 times that weight of water one degree centigrade. Scarcely inferior to cod-liver oil stands the fat of beef. Next come butter and the cacao-bean. Bread, the sundry kinds of meal, rice, and arrow-root form the next series, generating less than half the heat of cod-liver oil—from 4,400 to 3,800 heat-

units. The yolk of egg and sugar stand next. Ham, mackerel, beef, veal, Guinness's stout, and potatoes, evolve from 1,000 to 2,000 heat-units. And last of all come Bass's ale, the white of egg, milk, carrots, and cabbage, rating at not more than one-fifteenth to one-twentieth of the combustion heat of cod-liver oil. All the substances of which I have just spoken were in their natural condition; that is, not dried.

Let us pass to the second reservation required by the oxidation theory: namely, that the oxidation of much of the combustible of the body is incomplete. Complete combustion of nitrogenised compounds results in carbonic acid, water, and free nitrogen. Now, very little of the nitrogen taken in with the food passes off in the form of gas. That is to say, the combustion of nitrogenised matters is incomplete; urea, uric acid, kreatinin, and other substances urinary and fecal, which are still combustible, carry off the nitrogen. And along with the nitrogen they carry off carbon and hydrogen imperfectly consumed. Dr. Frankland has given us information upon this point also. Complete oxidation of one gramme of hippuric acid produces heat equal to 2,280 kilogrammeters, or more than is afforded by dried beef and albumen. Urea gives 934 kilogrammeters; uric acid, 1,108. One-third of the muscle and albumen, taken as food, passes off as urea, imperfectly burnt: an amount of albumen which gives, by complete combustion, say 50 heat units, gives, by combustion in the body, only 42.

Lastly, oxidation will not account for all the heat which the chemical processes of the body set free. This fact has been especially insisted upon by Berthelot. He has referred to the large quantity of heat which hydration sometimes sets free, exemplified by adding water to potash, sulphuric acid, or alcohol; and similar processes may go on in the body. He believes, moreover, that heat is set free when oxygen is absorbed by the red corpuscles of the blood in the pulmonary circulation, a process probably allied to a liquefaction of the gas; for which reason Berthelot estimates the condensation heat of 16 grammes of oxygen at four or five units. A man is said to consume 746 grammes of oxygen in twenty-four hours: this would produce by liquefaction about 200 heat units, equal to 85 kilogrammeters, which after all is a small quantity. The heat evolved when hydrogen is condensed by spongy platinum is an illustration of the case in point. Again, Berthelot has shown that a mere rearrangement of the elements of a compound, without the presence of free oxygen, may generate heat; a fact illustrated by the fermentation of grape-sugar, whereby water, alcohol, and carbonic acid are produced, the carbonic acid escaping in the form of gas. I think that we shall see enough hereafter to make us suspect that some of the chemical processes of the body, whereby carbonic acid is set free, are processes of the same kind. And I will just add that perhaps we may be led to believe that much of the oxygen of the blood is first of all employed in synthesis of the higher animal compounds, which become oxydated indeed, but not thereby burnt, or degraded in their tension force—rather the reverse; the combustion or liberation of tension-force being a subsequent process.

We have now considered all the chemical processes known to go on in the body, by which the tension-force of the ingesta is turned into the living force of heat. I feel that the details, into which latterly I have been compelled to go, may have been wearisome. I hope that this will be less the case with the discussion of a question which now arises—Where do these chemical processes go on? The blood is oxydated in the lungs, and reduced in the rest of the body. Which of these respirations—the pulmonary respiration or the tissue-respiration—is concerned with the production of animal heat? or are both so concerned?

Lavoisier raised the question, but gave not a distinct answer. Yet, throughout his last *mémoire*, it is obviously assumed that carbonic acid is formed both in the lungs and in the general systemic circulation: possibly some carbonic acid, he suggests, is formed in the alimentary canal and introduced into the blood along with the chyle. Spallanzani soon afterwards showed that snails, immersed in nitrogen, continued to exhale carbonic acid; thus affording confirmation of Lavoisier's doctrine concerning the formation of carbonic acid in the body at large as well as in the lungs. Brandis, in an essay upon the *Force of Life*, published in 1795, formulated the Lavoisierian opinion thus: That the animal heat is produced by constant small combustions of the carbonised fibres of the body, and therefore is not produced in the lungs alone; nor are the lungs warmer than the rest of the body; nor, he adds, is heat produced in the blood alone. Blumenbach taught a similar doctrine.

But dissentients were not slow to appear. In 1801, Autenrieth maintained that oxidation went on almost wholly in the lungs; the watery vapour and carbonic acid are formed in the lungs; the heat generated at the same time and place, is distributed by the blood to the rest of the body; the oxygen absorbed by the arterial blood, does, he says, but little. This anti-Lavoisierian doctrine was supposed to be established by the experiments of John Davy in 1814. Davy found the blood in

the carotid artery always warmer than the blood in the jugular vein; he found the left ventricle of the heart always warmer than the right. Becquerel supported Davy; he also showed that the blood in the aorta is warmer than that of the vena cava superior; and from these facts he deduced the more general statement that arterial blood is always hotter than venous blood. The observations were correct, but the generalisation was faulty. As early as 1817, Mayer (not Julius Mayer, but a writer in Meckel's *Archives*) explained that the lower temperature of the blood in the jugular vein was due to its superficiality and feeble current. In 1849, Claude Bernard maintained, what is almost a contradiction of Davy's observation, that the blood which enters the lungs is warmer than the blood in the left side of the heart; a remark tending to show that the lungs cool the blood. But, in 1857, my friend and colleague, Mr. Savory, made some experiments which led him to the conclusion that, when breathing is not interfered with, the blood of the left ventricle is warmer than that of the right. How are these contrary opinions to be reconciled? Apparently by the fact that neither of them is universally true. You will understand that I am now speaking of the heat of the blood on the two sides of the heart. Colin, in 1865, out of a number of experiments, found that twenty times the temperature of the blood within the right and the left heart was equal; thirty times the right was warmer than the left; fifty times the left was warmer than the right. Much depends upon the state of the skin (the chief cooling organ), of the muscles and viscera (great calorific organs). In animals thickly furred, and with large abdominal viscera, the right heart contains hotter blood than the left. The reason of this is clear. Still more recently, in 1868, Jacobson and Bernhardt, experimenting with thermo-electric needles upon living rabbits, found that the left heart was warmer than the right heart by $\frac{1}{4}$ to $\frac{3}{4}$ deg. Fahr.; but the temperature of the heart, and that of the blood in the heart, are not quite the same thing. To sum up: on the whole, there is reason to believe that the blood on the left side of the heart is mostly a little warmer than the blood on the right side. And this is the fact which was depended upon to prove that oxidation and the production of heat go on chiefly in the lungs.

Some opponent of this doctrine has made the poor remark that, if all the animal heat were generated in the lungs, they would be consumed thereby. But Julius Mayer endeavoured to show that, under these circumstances, the blood in the pulmonary veins would not be more than $\frac{3}{4}$ deg. Fahr. hotter than the blood in the pulmonary artery. The data afforded by the most recent physiology would reduce the difference to $\frac{1}{2}$ deg. Let us bear in mind that it is estimated by Volkmann that twenty-one million *grammes* of blood pass through the lungs of an adult man daily. The heat which he would liberate, during the same space of time, would suffice, according to Helmholtz, to raise 2 $\frac{3}{4}$ million *grammes* of water one degree centigrade. So that, supposing the capacity for heat of blood and water to be the same, each systole of the heart would raise the temperature of the blood no more than $\frac{1}{2}$ deg. centigrade, say $\frac{1}{2}$ deg. Fahr. Therefore, there is nothing unreasonable in the supposition that the whole heat of the body might be produced in the lungs, if we assume that the heat is carried off from them as soon as generated.

Anyhow, the formation of heat in the lungs must needs be considerable. The cold air which we inspire is reckoned to carry off from four to eight per cent. of the whole body-heat; to say nothing of the heat lost by the evaporation of water. And yet, as we have seen, the lungs are not cooled by this waste of heat. Heat, then, is set free in the lungs; but how is it set free? I have already referred to the suggestion that the condensation of oxygen in the red corpuscles evolves heat; but we found no reason to believe that the quantity of heat thus produced was anything but very small; and an obvious set-off against this source of heat is the rarefaction of carbonic acid. It is just as hard to believe that oxidation of the lung-tissue can generate much heat. And then there is the friction of the pulmonary circulation, which we may estimate at 44,000 heat-units of a *gramme*. But when all these causes of heat are put together, there remains a deficit which almost compels the conclusion that some chemical change goes on in the pulmonary blood over and above the mere condensation of oxygen.

[To be concluded.]

STATE HONOURS TO MEDICAL MEN.—Dr. Mattei, Professor of Obstetrics at Pisa, Dr. Marcacci, Professor of Pathological Anatomy in the same place, Dr. Fallani, Assistant Clinical Physician of the S. Maria Nuova Hospital at Florence, and Dr. D'Ancona, have been made Knights of the Order of the Crown of Italy. Professor Michelacci, Professor Pellezzari, and Dr. Giacometti (chief of the army sanitary staff), have been promoted to the rank of officer of the same order; and Professor Vannoni of Florence has been made commander.

LECTURES ON DERMATOLOGY.

DELIVERED AT

The Royal College of Surgeons of England.

By ERASMUS WILSON, F.R.S.,

Professor of Dermatology in the College.

LECTURE IV.

UNDER the head of eczematous affections, I include three other allied diseases—scabies, lichen, and impetigo.

Scabies, or common itch, is not unfrequently mistaken for eczema, and especially for that form of the disease which I have described as eczema papulosum. Sometimes, however, it may present certain of the characters of eczema vesiculosum, and sometimes those of eczema pustulosum. That it should be mistaken for eczema is by no means remarkable, when we remember that the pathological lesions of the disorder are identical with that disease; and, under these circumstances, we are obliged to fall back, for the diagnosis of the eruption, upon the discovery of the living cause of scabies—namely, the *Acarus scabiei*.

We are not rich in illustrations of scabies. Nevertheless, we have in the collection eight or ten specimens of the acarus, male as well as female; and a small series of casts, with a drawing and lithograph of the disease. The casts exemplify very accurately the appearance of a well developed instance of the eruption occurring in a child; and we may detect in the casts a ragged state of the epidermis, a numerous crop of papulæ, several vesicles, and, associated with the vesicles, a somewhat tumid state of the surface of the hand.

Lichen is the universally accepted term for the papular element of eczema. From a frequent association with eczema, it is sometimes far from easy to distinguish between eczema papulosum and true lichen; and the distinction, at the best, must be admitted to be both arbitrary and unsatisfactory. In this difficulty, I have ventured to describe as lichen an eruption of papulæ presenting a monomorphic character, as contradistinguished from the dimorphic character of eczema papulosum. Our first illustration of lichen is a further example of the difficulty referred to; it is the representation of the trunk of a man covered with an eruption of papulæ closely crowded together and limited to a portion of the skin which had been subjected to the influence of an irritant article of dress. The eruption is named, in accordance with our present views as to dermatology, “lichen”; but there can hardly be a doubt on the mind of any student of morbid phenomena that, if the stimulant had been more active or more prolonged, the case would have merged into one of ordinary eczema papulosum. In reference to the present illustration, I may call attention to a difference of size of the papulæ, having relation to their more crowded or scattered position; and also to the manner of their distribution. Thus, over the greater part of the back, the papulæ are crowded, and the eruption entitles itself to the denomination of lichen *confertus*; but, if the distribution had been scattered, instead of being crowded, the proper expression would have been *disseminatus*. Then on the arms there is another kind of crowding—namely, in small isolated clusters or bunches; this is the corymbose distribution, which would be named *corymbosus*. And presently I shall have occasion to demonstrate two other methods of distribution; one of these being in rounds or orbiculi, hence *orbiculatus*; and the other in circles or rings, *circinatus*.

The diagnosis of true lichen properly should turn upon the question, whether the papule is an *idiopathic affection of the follicle*, or whether it is merely a part of a general disorder of the vascular tissues of the skin. In the case of eczema papulosum, it is decided that the papulæ are simply a complication of a general affection; and I have already stated my belief that the case of lichen simplex just submitted to examination was an eczema, which had stood still on arriving at the papular stage, in consequence of the early removal of the exciting cause. On the other hand, instances occasionally come before us wherein the papular manifestation remains permanent, without any other signs of eczema being discoverable upon the rest of the skin.

I have already dwelt more than once on the forms assumed by eruptions of the skin, with the view to make apparent that the variety in their form is of an accidental rather than of a specific nature; or, in other words, that it is a necessary consequence of the structure and organisation of the skin. If the cause of the disorder be one which is capable of acting with power upon the whole of the skin, the result will be a general eruption; no part of the structure will escape; follicles and interfollicular surface will alike suffer, and the eruption may be of

the conferted or crowded kind. But, if the same cause be supposed to operate with a weaker degree of power, we may have as a consequence a general eruption, which is corymbose or clustered; and, if it be weaker still, the eruption may be disseminated or scattered. Then, in the next place, with a different influence acting upon the nervous system, the eruption may be partial, instead of being general; it may be partial and extensive, or it may be partial and restricted, or, as we commonly term it, local. Again, in its manner of manifestation, also governed by the nervous system, we may find the patches to be irregular or regular in figure, sometimes diffused, sometimes circumscribed; and of the circumscribed kind we may have circles which are sometimes solid or orbiculate, and at other times open or circinate and annulate. I have called attention to these very conspicuous phenomena in speaking of eczema erythematosum orbiculatum and circinatum, and again in describing eczema papulosum corymbosum and circumscriptum; and I refer to it again for the purpose of showing that these apparent distinctions, though highly interesting physiologically and pathologically, have no bearing whatever on the practical consideration and practical treatment of diseases of the skin. Eczema, as eczema, is the only objective consideration to be kept in our mind; and, although I have travelled through a series of terms—for example, eczema, psoriasis, pityriasis, scabies, and lichen—I am still dealing with eczema, and have not yet got beyond the limits of that important and ubiquitous disease.

It is very reasonably objected to dermatology, that it possesses so great an abundance and variety of names as to render its study repulsive and perplexing. But let us look at the subject in another way. The skin is one of the most important and most highly organised of the constituents of the body. It is interesting to us for its structure and functions. Why should it not be equally interesting to us for its diseases? The answer is obvious. We know something of its structure and organisation; but we know little of its diseases. And yet these diseases are constantly under our eye, constantly within our reach, and are known to constitute in some instances the greatest annoyance and vexation of life. I can fancy such an objector continuing as follows: “Yes, I wish to become acquainted with the diseases of the skin; but I shrink from their investigation, on account of the obscurity with which they seem to be invested.” But my reply would be simple. There is no obscurity to those who dare to make the first advance towards their study. A vast deal of the apparent obscurity has really arisen less from the abundance of diseases or abundance of terms, than from the abundance of teachers. We have had one great teacher in Great Britain in Willan, with his disciple, Bateman. But now I ask you to forego all human teachers, and come to this College to learn from the face of Nature herself, or from as near an approach to Nature as it is possible for man to invent. We will not alarm you with classification: we will only refresh your memory as to the early rudiments of medicine. We will tell you that certain of these diseases—say three—are diseases having a pathological basis; that other three are disorders of function; and that the remaining three are diseases of special apparatuses of the skin. We will ask you to inspect the first eighty-five members of our collection with the aid of our catalogue; and we will say to you, “Behold simple inflammation of the skin, and the curious modifications engendered by structure or by the constitution of the patient. Seventy-five out of those eighty-five preparations illustrate eczema, and the remaining ten a different eruption.” A word more: and, with the exception of those cases of eczema termed scabies, the whole of the remainder are to be treated alike. These are the general principles which Nature will teach, and which medical men, from the very requirements of their education, are always eager to learn. I foresee the day when every medical man, whatever his specialism in other respects, whether physic or surgery, will be nothing unless he be at the same time a dermatologist.

But, it may be asked, why describe minute appearances when they have no bearing on the essentials of the disease? The answer is manifest. 1. They are there, and we only describe what we see. 2. We note them, that we may recognise them when we see them again; and 3. We note them, that we may estimate them at their proper value, and exclude them from exercising an improper influence on our judgment or our principle of management. The immensity in number of the stars does not prevent the astronomer from recognising and individualising the constellations, nor from comprehending the mutual relations of the universal whole.

To return from this long digression, I may observe that, in my judgment, all the forms of lichen which we have just been considering would be more properly transferred to the group of eczema papulosum, than retained as a part of a distinct group. The variety of eruption termed lichen circinatus is not unfrequently the forerunner of eczema, and is very commonly associated with a dry eczema or pityriasis of the

scalp, or with moist eczema behind the ears or in folds of the skin in other parts of the body.

But, while I would transfer the superficial varieties of lichen already described to eczema, it would be necessary to retain under this name at least three forms of the affection—namely, lichen marginatus, lichen planus, and lichen urticatus.

Lichen Marginatus entitles itself to special distinction by being in its essence a chronic inflammation of the follicles, and by its independence of other forms of eczema, although originating in the same way. It is a singular affection, and is evidently an exaggeration of lichen circinatus. It consists of rings having an inflamed and prominent margin, and ranging in size between a few lines and many inches in extent; the rings being sometimes numerous and dispersed, at other times solitary. It may be developed on any part of the body or limbs, but manifests a predilection for the region of the perinæum, often originating from the point of contact of the scrotum and thigh, and thence spreading upwards in front and behind, and giving rise to a series of remarkable curves upon the pubes, the groins, and the nates.

Lichen Planus is a chronic affection of the follicles, giving rise to papulæ peculiar in colour, configuration, and structure. The colour of the papulæ is a dull purplish or lilac red, and would seem to have suggested to Hebra the appellation "*lichen ruber*". The figure of the papulæ is flat, depressed on the summit, and quadrangular at the base. It is very slightly elevated. Its flattened summit is smooth and glistening, like horn, evidently from hypertrophy of the epidermis; and it is umbilicated at the centre, where may be seen the aperture of a follicle filled with dry epithelial exuviae. The eruption is discrete and disseminated at its first appearance, but is apt to congregate into blotches of considerable extent by the aggregation of its papulæ, and their blending by an infiltrated base. In this latter form, the horny coverings of the papulæ and the cuticle of the intervening congested skin exfoliate more or less abundantly, and, with the hard, dry, and greyish excreta of the follicles, give rise to an uneven desquamating surface, surmounting a red and thickened base. Lichen planus is frequently attended with intense and intermittent itching, and, on the subsidence of the papulæ and blotches, very commonly leaves behind it deeply pigmented maculæ.

Lichen Urticatus is an affection distinguished by the eruption of large scattered papulæ, of red colour, and attended with so much tingling and itching as to have suggested a comparison with urticaria; hence its name, lichen urticatus. It is an eruption of childhood, and has no relationship whatever with eczema, although included under the general denomination of eczematous affections. Its proper place very probably would be by the side of urticaria, and to that group it will doubtless be some day transferred.

Impetigo is the last of the examples of eczematous affections. It is a superficial pustule, an offshoot of eczema pustulosum, just as lichen, a pimple, is, as we have already seen, an offshoot of eczema papulosum. The study of eczema pustulosum has prepared us for an idiopathic eruption developing itself like an eczema, with a purulent or mucopurulent secretion; and such an affection we find illustrated in several of the models before us.

OBSTETRIC MEMORANDA.

LABOUR INDUCED BY UTERINE INJECTION.

THE case of Labour Induced by Uterine Injection, related by Mr. Kemp in the JOURNAL of February 11th, reminds me of an almost exactly similar one in my own practice.

E. W., a labourer's wife, a short square built woman, had had eight previous labours at full time, and on every occasion had been delivered by craniotomy—the children having been dead, owing to prolapsus of the cord, with the exception of the last, which was the first with which I attended her. In this case, as in Mr. Kemp's, there was no distortion of the pelvis; but its dimensions were abnormally narrow, so that the head of the child (a large one) stuck fast in the brim. Determined never again to run the risk of having to sacrifice a living child, I told her if ever she were in the family-way again, to give me an early notice, which in about a year she did. At the end of the eighth month of pregnancy, I injected a pint of warm water into the uterus by means of a large catheter and a syringe. As no action followed, I repeated the injection in twenty-four hours, using a pint and a half of water. This was at 11 A.M. At 4 P.M., violent pains occurred in rapid succession, and in two hours the child was born, but dead—the presentation being normal. Although the douche acted sufficiently well in this case, I think that in another I should be disposed to try dilating the os uteri, as it seems to me probable that the child's death was due to the violence of the expulsive efforts of the uterus while the os was still closed.

H. FRANKLIN PARSONS, M.D.Lond.

CLINICAL REMARKS

ON THE

TREATMENT OF HÆMOPTYSIS.

BY A. T. H. WATERS, M.D., F.R.C.P.,
Physician to the Liverpool Northern Hospital.

GENTLEMEN,—I wish to call your attention to the treatment of hæmoptysis. Cases of this affection are very frequently met with in our wards, and will often occur to you in your practice hereafter. There is scarcely any symptom which more alarms a patient, or a patient's friends, than the expectoration of blood; for people have a well-founded belief that it is a very common indication of the existence of pulmonary consumption. Indeed, setting aside those cases in which hæmoptysis is associated with heart-disease, or is of a vicarious character, in a very large proportion of the remainder it is undoubtedly connected with phthisis. I do not mean to say that hæmoptysis always indicates the presence of tubercles in the lungs, for I believe it may occur at a very early period of consumption, and before any tuberculous deposit has taken place—in fact, that, at times, it is the first indication of phthisis, and may determine the development of that disease. The existence of hæmoptysis cannot prove to you that pulmonary consumption has arrived at any particular stage; for just as, I believe, it may take place before there is any tuberculous deposit, so it may occur when the disease is far advanced, and the lung full of cavities.

Considering the frequency of hæmoptysis, it is only in a small proportion of cases that it proves fatal—the patient dying suddenly from the profuseness of the hæmorrhage, and consequent suffocation, or sinking more or less rapidly from exhaustion. A case of rapid sinking occurred not long ago in my practice in the hospital, and I will briefly relate it to you.

H. G., aged 30, was admitted under my care on October 12th, 1869. He was brought from a vessel which had just arrived in the port, and was spitting up large quantities of blood. He was in a sinking state when admitted, and he died in about six hours. He had been under my care in the hospital three months previously. At that time there was dulness, with other signs of consolidation at the base of the left lung, and I considered the case to be either chronic pneumonia, likely to develop into phthisis, or phthisis beginning at the base. On making a *post mortem* examination, we found a large cavity at the base of the left lung, and a smaller one at the apex, and the substance of the lung was studded throughout with tubercles. The anterior part of the lung was emphysematous, and also contained tubercles. The right lung was more or less emphysematous throughout, and infiltrated with tubercles. In the middle lobe there was a large cavity filled with blood. A considerable quantity of blood was also found in the stomach. Here, then, we had a case in which ulceration or rupture of a large vessel on the walls of a cavity produced hæmorrhage so profuse as to cause rapid death.

This is the only case that has occurred in my practice in this hospital where hæmoptysis has been *directly* fatal; but, curiously enough, within a short time—about ten days—of the death of my patient, my colleague, Dr. Glynn, lost a patient from pulmonary hæmorrhage, and, after death, a cavity was found in the left lung, into which blood had been poured in large quantity.

Whenever hæmoptysis is only slight, during the progress of a case of phthisis, no special treatment need be directed to it. It is better to continue the measures which you are adopting for the general treatment of the disease, and give encouragement to your patient if he be disposed to be alarmed at the appearance of a few specks of blood. But should the hæmorrhage be at all severe, you should at once enjoin rest, nor should you allow your patient to take exercise, or run any risk, by which an inflammatory attack might be brought on, until all appearances of blood have been lost for some days. I consider this rest and care most important, whether there have been no previous symptoms of phthisis and no other signs are present, or whether you have indications of existing deposit; and for this reason: that hæmoptysis is not infrequently followed by pneumonia, especially where the hæmorrhage has been severe. When blood is poured out into the lungs, unless it be all expectorated, it must necessarily act as an irritant, and inflammation is liable to be set up around it. This inflammation is often of a limited character; but, in two instances which have oc-

curred to me within a somewhat recent period, extensive pneumonia followed hæmoptysis. It is true that in both these cases the hæmorrhage was copious, and in one which I shall relate to you a very large quantity of blood was lost.

I would caution you, therefore, to be on your guard, in all cases where hæmoptysis is at all severe, against the occurrence of pneumonia. It is better, I think, to err on the side of keeping the patient quiet, than to allow him to incur risk by too early exercise or exposure. The pneumonia which may result from a pulmonary hæmorrhage may determine the development of phthisis, which might possibly, by the exercise of proper care, have been prevented from becoming developed.

There is a kind of hæmoptysis which I have met with which is, I believe, the result of a simple oozing of blood from the mucous membrane of the bronchial tubes. The blood is not mixed with viscid sputa, nor is it pure blood; but the expectoration has very much the appearance of currant-juice. I have lately had a patient in whom this kind of expectoration had existed for a considerable time, and in whom, at the time he first came to me, I could discover no physical signs of consolidation of either lung. He had taken various medicines for the hæmorrhage, but nothing had done much good. I did not for some time adopt any special treatment for the bleeding, but confined myself to the administration of tonics, quinine, iron, and cod-liver oil. But, finding that the symptom did not cease, I ordered gallic acid in ten-grain doses three times a day. This had the desired effect, and soon the hæmorrhage stopped. It has recurred at intervals, but the patient is able to check it by resorting to the gallic acid. Since I first saw the case, twelve months ago, symptoms of deposit in the right lung have supervened.

I will now call your attention to one of the most severe cases of hæmoptysis which I have ever seen. It will serve to illustrate the principles of practice which should be adopted in the treatment of this affection.

H. B., a German, 28 years of age, described as a merchant, was admitted into the hospital under my care on the 18th September, 1868. He had just come by sea from Hamburg, and had suffered much from sea-sickness in consequence of rough weather. He told us that a year previously he had expectorated some blood, and that subsequently his health had been pretty good. I saw him soon after his admission. He was coughing up blood of a bright red colour, and in considerable quantities. His pulse was quiet, but he appeared very weak. I ordered him three grains of acetate of lead, with half a grain of opium, every four hours. I directed that he should be kept perfectly quiet, and have nothing in the way of food, but small quantities of iced milk or beef-tea. I saw him on the evening of the following day. He had passed a bad night; the hæmorrhage had been very profuse; the blood was almost pure, and, although I did not measure it, I am sure that many ounces had been brought up. It was kept in several vessels, and one might have thought that a series of small venesections had been practised. The pulse was 90, and the patient had taken his food pretty well. I ordered the pills to be given every two hours, and ice to be applied to the chest. On the 20th, the quantity of blood expectorated was about the same as before, but the pulse had risen to 100. The patient was getting drowsy, and the pupils were contracted. I therefore stopped the opium, but continued the acetate of lead, and ordered dry cupping between the shoulders. I carefully examined the chest, but could find no marked physical signs of phthisis. There was, however, slight dulness, with deficient movement at the right apex. The heart sounds were normal. On the following day, there was a slight decrease in the hæmorrhage, but still the blood was in large quantities, quite fluid and florid; the narcotism had passed off, and the pulse had fallen a little. I consider that there was a *slight* improvement in the patient, but that the remedies were not acting quite satisfactorily, and that, unless the hæmorrhage were soon checked, the patient would sink from exhaustion. I had given a fair trial to the acetate of lead. It had been taken for three days in frequent doses with very little effect, and I felt that some other measures should be used. I therefore ordered ten grains of gallic acid every two hours; the ice to be continued to the chest, and as much nourishment, in the shape of milk, beef-tea, and eggs, to be given as could be borne. The effect of the acid was very marked. On the 22nd, when I saw the patient, after he had taken the acid for twenty-four hours, he was spitting up only little masses of blood, and the quantity was largely diminished. On the following day, the improvement was still more marked, and I ordered the mixture to be taken every three hours only. On the 24th, the hæmorrhage was very slight, and the pulse had fallen to 84. The gallic acid was now ordered to be taken every four hours; and on the 27th, he was perfectly free from hæmoptysis, and, in fact, convalescent from his attack. But now mark what followed. On the 29th, he began to get worse; the pulse rose; he became feverish; and, in fact, an

attack of pneumonia of the base of the left lung set in. As I propose to refer in a special lecture to this attack of the patient, I shall say no more than that he made a good recovery from it, and was discharged from the hospital on the 23rd October.

There was a very interesting case of hæmoptysis in the wards a short time ago, to which I should like to call attention.

D. C. was admitted into the hospital on the 31st of January, 1870. He was 35 years of age, a cab-driver, and consequently had been much exposed to the weather; moreover, he confessed to being a free spirit-drinker. He had been in the habit, for some years, of taking five or six glasses of spirits a day. He told us that he had suffered from a cough for about two months, but that up to three days before his admission, he had brought up nothing but phlegm. On the evening of January 28th, he coughed up, he said, about half a pint of blood; on the following day, about a pint; and, again, on the 30th, about a pint. I saw him soon after he came to the hospital. The hæmorrhage had ceased, the respiration was not hurried, and the pulse was quiet. I did not examine the chest carefully, as I did not wish to disturb him for fear of reproducing the hæmoptysis; but, from the slight examination I made, I could detect no organic disease. The man had a large pupil, a somewhat strumous aspect, and there was a flush on each cheek. The urine, on examination, was found healthy. I ordered acetate of lead and opium, and ice to the chest. For two or three days after his admission, he spat blood in small quantities; and, on the 5th and 6th of February, there was no hæmorrhage at all; but on the 8th it returned somewhat profusely. I at once ordered him ten grains of gallic acid every four hours, and, as the hæmorrhage had not quite ceased on the 10th, the medicine was given every three hours. A careful examination of the chest on that day revealed no signs of organic disease. There was good resonance on both sides, and the expansion was good. The heart sounds were normal.

For three days the man was free from hæmoptysis, and I reduced the quantity of gallic acid; but on the night of the 13th February, after reading aloud, he spat up about half a cupful of pure blood. Early on the morning of the 16th, he awoke and coughed up about six ounces of blood. He continued to spit up small quantities of blood till the 19th, when there was no hæmoptysis, and the mixture was stopped; but on the following day the hæmorrhage recurred to the extent of about half an ounce, and for several mornings he brought up about the same quantity. On the 24th, about 11.20 A.M., he spat up about six ounces of bright arterial blood. The gallic acid was then resumed every two hours, and ice was applied to the chest. The pulse, which had been quiet, became more frequent, 108, but it soon fell. The hæmorrhage continued to a slight extent till the 27th, when it ceased, but it recurred on the 4th of March to the extent of a cupful of blood. I then added twenty minims of tincture of ergot to each dose of the gallic acid. From this time the hæmorrhage gradually became less and less, and at last ceased. On the 17th he was put on tincture of iron. He had already taken cod-liver oil for about a fortnight. There was no more hæmorrhage until the 30th March, on which day he brought up a little blood. I again ordered the gallic acid, and the bleeding was soon stopped. He left the hospital on the 7th April.

I made a careful examination of the chest on several occasions, and once just before the patient was discharged, but I could find no evidence of deposit in either lung, and if any existed it must have been deep-seated.

And now I will call your attention to the various measures which are usually resorted to in the treatment of hæmoptysis. In the first place, I believe that the best remedy you can use, the safest, the most rapid, and the most effectual, is gallic acid. It must be given in full doses—not less than ten grains every hour, or every two, three, or four hours, according to the severity of the case. It is readily taken by patients; it rarely disagrees with the stomach, and is well borne by delicate persons. I have now used it in a large number of cases, and I can speak with confidence of its value. I have rarely found it fail, but still it has not been invariably successful in rapidly checking the hæmorrhage. You may recollect the case of Peter R—, who was so long in the house, and in whom hæmoptysis recurred over and over again. I prescribed a variety of remedies for this man, and each in its turn failed to arrest the bleeding. It is quite true, however, that gallic acid answered better than any other agent used; it never failed to diminish the quantity of blood expectorated, and on several occasions it stopped the hæmoptysis altogether for a time, and this is more than I can say of either of the other substances used. I do not think you gain anything by giving the acid in larger doses than ten grains; but I know that some physicians give it in twenty-grain doses. It rapidly finds its way into the urine and is excreted.

Acetate of lead is another valuable preparation for arresting hæmoptysis: combined with opium it is often of great service. I usually give

it in the form of pill in two- or three-grain doses every two, three, or four hours. I have seen very severe cases yield to this treatment. Some of you may recollect one of our house-surgeons who had a bad attack of hæmoptysis, and for whom I prescribed this substance, and who made a satisfactory recovery.

In the opinion of some physicians, acetate of lead is a more powerful styptic than gallic acid, but in the treatment of the form of hæmorrhage which we are now considering I prefer the latter; if, however, in any case this failed, I should resort to the lead preparation. If you give it, it must be in the full doses which I have recommended.

Sulphuric acid is a good remedy in slight cases of hæmoptysis; and it may be combined with other substances, as quinine, iron, etc., which are given for the general treatment of the disease; and, indeed, I have seen cases which have been somewhat severe yield to full doses of this acid. There was a man in the wards some years ago who was spitting a good deal of blood, and for whom the house-surgeon had ordered sulphuric acid in ten-minim doses. I saw the patient for the first time after he had been taking the acid for two or three days, but it had not checked the hæmorrhage in the slightest degree. I considered the dose too small, and I increased it to thirty minims. In twenty-four hours the hæmorrhage had greatly diminished, and it soon stopped. If you are disposed to try this acid in any severe case, you must give it in full doses; but it is not so easily taken, nor is it so well borne by patients as gallic acid. Moreover, as it must be largely diluted to be taken, it necessitates the swallowing of a good deal of liquid, which is generally to be avoided.

Let me give you a caution in reference to the administration of opium. It is well to bear in mind its tendency to confine the bowels; for, in treating persons who are very weak for hæmoptysis, you may find that when you have checked the hæmorrhage you have great trouble in getting the bowels opened, and the efforts to move them may reproduce the bleeding. Of course, in any severe case you must do all you can to stop the hæmorrhage, and opium, either with gallic acid or acetate of lead, is often, I think, useful. It doubtless possesses some styptic powers, and, moreover, is probably of use in sustaining the patient under the influence of the loss of blood. I advise you, however, not to continue its use longer than is absolutely necessary.

My experience of the use of ergot of rye in pulmonary hæmorrhage is not very favourable. I have given the tincture in several cases, but I have not been very satisfied with the results. It may be applicable to some cases, but I do not think that it possesses such valuable properties as gallic acid or acetate of lead.

In severe cases of hæmoptysis, I always apply ice to the chest. We know that a cold substance applied to the skin will produce a reflex contraction of distant blood-vessels; and it has appeared to me that ice applied to the chest has been of service in checking hæmoptysis. I have never seen any injurious results follow its use. The ice should be applied in a bag, and should not be kept on sufficiently long to produce a chill.

You will find digitalis recommended by some writers as a valuable agent for checking hæmoptysis. I have frequently found, in cases to which I have been called in consultation, that this medicine has been given, and I know that many practitioners have great confidence in it. They do not, however, prescribe it alone, but in combination with other remedies, as sulphuric acid and laudanum, so that it is difficult to say how far the results which have followed have been due to the digitalis itself. As far as my own experience goes—and I have frequently prescribed digitalis—I cannot recommend it as a trustworthy remedy in hæmoptysis. You are probably aware that there are conflicting views in reference to the action of digitalis. On the one hand, it has been considered a cardiac sedative; on the other, a cardiac tonic. If, as is alleged by some, it have the power of causing contraction of the smaller arteries, it ought to be, theoretically, useful in hæmoptysis; but on this point I can only give you the result of own clinical observations, and, having tried it and found it fail, I have given up its use.

I occasionally prescribe dry cupping in hæmoptysis, especially if it be of an active character; but I never fail to give styptics internally at the same time.

With regard to the administration of purgatives, I must caution you against their indiscriminate use in this affection. When you have to deal with tolerably robust individuals you may safely give purgatives, and they will often be of service; but when the hæmorrhage is severe, or the patient in a very exhausted condition, you must be very careful how you further lower him by their administration. It becomes sometimes a very serious question whether the movements necessary for the action of the bowels may not prove injurious by opening a vessel which has recently closed. In some cases the thread on which life appears to hang seems so slight that we dare not allow the slightest movement on the part of the patient, and we are glad that the bowels remain inactive.

Whenever your patients show symptoms of exhaustion during the occurrence of hæmoptysis, you need not hesitate to give small doses of stimulants with food at regular intervals. I do not believe that such treatment in anywise tends to increase the hæmorrhage, and it has a beneficial effect in sustaining the patient.

There is one remedy to which I have not referred; viz., turpentine. It is most valuable in hæmorrhage from the bowels, but less so, in my opinion, in pulmonary hæmorrhage. However, it is an agent to which you may have recourse should other measures fail.

A few words as to the general management of your patient. Let him be kept perfectly quiet, and do not allow any person to be with him except his nurse. Take care that his room is kept cool and well ventilated, and give no other food than milk and beef-tea, in small quantities and iced. Thirst will often be complained of: this is best relieved by small lumps of ice. You must not allow large draughts of iced-water, and everything likely to cause vomiting or distension of the stomach must be specially avoided. Lastly, let me advise you not to disturb your patient for the purpose of making unnecessary physical examinations.

RECOLLECTIONS OF WORK IN AN AMBULANCE.

By WILLIAM MAC CORMAC, F.R.C.S.

IX.—Conclusion.

PERHAPS I cannot do better in concluding what is but a sketch, and, I fear, a somewhat imperfect one, of our ambulance work, than by giving *in extenso* a table of all the cases of injury which we received and treated in Asfeld, and of all the operations that were performed. Some of these operations were, however, not performed at Asfeld, the patients having been sent to us subsequently from other ambulances. The classification of the injuries is made mainly according to regions from the head down to the foot, which is, perhaps, the simplest and the best plan. When the injuries have been multiple, they are classed under that one which is likely to prove most dangerous to life. Besides the cases thus recorded, there are a number whose names were never discovered, and all source of identification was lost. There are several, too, whose names are known, but not the forms of injury from which they suffered. All this was unavoidable. The amount of work imposed upon us was simply overwhelming for the first few days.

I have prepared these tables with a good deal of care and after a great deal of trouble. I had my own notes, and, in addition, a general register of all the cases. By collating these two carefully I think I have been able to exclude serious error, and to present as correct a *resumé* of our work in a tabular form as it is possible to have.

Table of Injuries Treated at Asfeld during Sept. and Oct. 1870.

	Cases.	Dths.
Scalp-wounds	9	2
Fracture of the Skull	8	7
Gunshot Wounds traversing the Face or the Face and Neck, and in general Fracturing the Bones	24	5
Wounds of the Face destroying an Eye	4	0
Wounds traversing the Neck	5	0
(In one case the trachea was divided.)		
Wounds of the Soft Parts around the Shoulder-joint without Penetration of the Articulation	7	0
Wounds around the Elbow-joint without Penetration	1	0
Wounds of the Soft Parts of the Hip and the Buttock	18	6
Wound of the Buttock and other parts	7	0
Complete Avulsion of the Buttock, with Fracture of the Ilium and Sacrum	2	1
Wounds around the Knee-joint not penetrating the Articulation	21	2
(In one case the Popliteal Artery was divided by the ball, causing Sphacelus.)		
Wounds around the Ankle-joint without Penetration	3	0
Penetrating Wounds of the Shoulder-joint	6	3
„ „ Elbow-joint	15	6
„ „ Hip-joint	3	2
„ „ Knee-joint	10	9
„ „ Ankle-joint	7	3
Shell-wound Penetrating both the Shoulder and the Elbow-joint of the same Arm	1	0

Table of Injuries.—Continued.

	Cases.	Dths.
Wounds of the Soft Parts of the Chest without Penetration; sometimes complicated with Fracture of the Ribs	14	2
Superficial Wounds of the Chest and Abdomen ...	4	0
Superficial Wounds of the Chest and other parts...	5	0—23
Superficial Wounds of the Back and Loins ...	15	2
Wounds of the Back and other parts ...	2	0
Gunshot Wounds of the Spine—		
Cervical Region	2	2
Dorsal Region	1	1
Lumbar Region	4	3—7
Gunshot-wounds of the Pelvis...	4	0
Gunshot-wound of the Pelvis with a Penetrating Wound of the Chest also	1	1
Gunshot-wounds Penetrating the Chest—		
Wounds penetrating or traversing chiefly the		
Left Lung	18	9
By a Ball first traversing the Scapula ...	3	2
By a Ball first traversing the Head of the Humerus	4	1
By a Ball first smashing the Clavicle...	5	4
Shell-wound tearing away the side of Chest and exposing the Lung largely	1	1—31
Wounds Penetrating the Abdomen	7	7
Wounds of the Soft Parts of the Arm without Fracture	31	1
Wounds traversing both Arms	2	0—33
Wounds of the Fore-arm without Fracture ...	22	0
Gunshot Injuries of the Hand	33	0
Wounds of the Soft Parts of the Thigh without Fracture	63	6
Gunshot-wounds traversing both Thighs ...	3	0
Gunshot-wounds of the Thigh and other parts ...	9	1—75
Wounds of the Soft Parts of the Leg without Fracture	36	1
Gunshot Injuries of the Foot	24	2
Gunshot Fractures of the Femur—		
Upper Third	9	5
Middle Third	8	4
Lower Third	10	10—27
Gunshot Fracture of the Leg—generally the Tibia.	41	13
Gunshot Fracture of the Tibia, with Simple Fracture of the opposite Leg	1	0
Gunshot-wound traversing both Legs, causing Fracture of one Tibia, a Wound Penetrating the opposite Ankle-joint, and a Wound of the Thigh without Fracture	1	1—43
Fracture of the Femur and Tibia in the same Limb ...	1	1
Simple Fracture of the Leg	4	0
Gunshot Fracture of the Humerus	24	10
" " " " with Wound of the Thigh and Buttock	1	1
Gunshot Fracture of the Radius or Ulna, or both ...	10	0
Burns, Contusions, and Sprains	31	0
Temporary Loss of Sight from Shell-explosion ...	1	0

I have purposely avoided any record of the numerous cases of Fever, Dysentery, and Rheumatism, which we had, as they only remained for a very short time under our treatment.

Table of the Operations Performed.

	Cases.			Deaths.		
	Prim.	Sec.	Tot.	Prim.	Sec.	Tot.
Disarticulation at the Hip-joint	0	3	3	0	3	3
" " Knee-joint	0	3	3	0	3	3
" " Shoulder-joint ...	1	1	2	1	1	2
" " Elbow-joint	0	2	2	0	2	2
" " Wrist-joint	2	0	2	0	0	0
Amputation of the Thigh.						
Upper Third.....	2	6	8	1	5	6
Middle Third	1	9	10	1	8	9
Lower Third	2	1	3	2	1	3
Amputation of the Leg.						
Upper Third.....	14	6	20	5	3	8
Middle Third	2	1	3	0	1	1
Lower Third.....	2	0	2	1	0	1
Syme's Amputation	0	2	2	0	1	1
Amputation of the Arm	14	6	20	6	3	9
" " Fore-arm	4	0	0	0	0	0
" " Arm & Fore-arm ...	1	0	1	1	0	1

Table of Operations.—Continued.

	Cases.			Deaths.		
	Prim.	Sec.	Tot.	Prim.	Sec.	Tot.
Disarticulation at the Shoulder-joint and Amputation of the Fore-arm	1	0	1	1	0	1
Double Fore-arm Amputation	1	0	1	0	0	0
Double Leg Amputation	1	0	1	1	0	1
Excision of the Knee-joint.....	0	1	1	0	1	1
" Shoulder-joint	1	3	4	1	1	2
" Elbow-joint	4	7	11	1	5	6
(One case requiring secondary amputation recovered.)						
Double Resection of the Shoulder and Elbow in the same Arm	0	1	1	0	0	0
Resection of one-third and one-half of the Clavicle	1	1	2	1	1	2
Resection of considerable portions of Long Bones	0	0	10	0	0	0
Extraction of Splinters of Shells and of Bullets	About 150					
Partial Amputation of the Hand ...	0	0	12	0	0	0
" " Foot	0	7	7	0	0	0
Resection of the Lower Maxilla ...	1	0	1	0	0	0
Resection of the greater portion of the Ulna	2	0	2	0	0	0
Cases. Dths.						
Ligature of the Subclavian Artery				2	2	
(One was almost immediately fatal, the other died pyæmic.)						
Ligature of the Common Carotid				2	1	
(Since this report was made out, the other case has proved fatal at Brussels after apparently complete convalescence.)						
Ligature of the Femoral (died pyæmic)				1	1	
Ligature of the Dorsalis Pedis				1	0	

In making out these tables, I found the left side of the body very much more frequently injured than the right—certainly in a proportion of not less than three to two. The left lung, for instance, was traversed nearly twice as often as the right. The left hand, fore-arm, and arm, much more frequently suffered than the right, and the same was true of wounds of the lower extremity. The ordinary positions assumed by a soldier in firing are such as to expose the left side most.

I have been repeatedly asked whether I observed any difference in the manner in which French and Germans bore suffering and pain, and recovered after injury. I can only record my own impressions, derived from what I saw, when I state that I failed to observe any marked difference. Differences there may have been, but what struck me most was the resignation, both amongst officers and men, to their too often sad fate. I met with no repining, no fretfulness. The recollection which I bear away with me, and which always presents itself in the foremost place, is the gratitude that these poor fellows showed and expressed for all we did for them. Flesh and blood have the attributes of flesh and blood no matter on which side of the Rhine they may have been nurtured. And, apart from individual characteristics, I could detect no difference between the way in which a German and a French wounded soldier—each of whom had sustained an injury of like severity—comported himself.

On a reference to the table of injuries, it will be seen that there are recorded seven cases of penetrating wound of the ankle, with three deaths. Two of these deaths followed secondary amputation; the third was from exhaustion.

CASE LI.—Holler, aged 24, a private in the 53rd Regiment of the Line, was wounded on the 1st September by a ball which entered an inch and a half below, and slightly posterior to, the internal malleolus, and emerged a little in front of the external malleolus. For a time, under expectant treatment, all went well; a number of small pieces of bone had been removed, and fair prospects of good recovery were entertained; but on September 17th Syme's amputation proved needful, and was performed by Dr. Wyman. The poor fellow died with pyæmic symptoms on September 21st.

CASE LII was also one of penetrating wound of the ankle, but recovery took place after expectant treatment. Sergeant Emile Baudry was wounded on September 1st, by a ball which opened the joint just over the instep. The ball was extracted by the wound of entrance. There was a good deal of diffuse inflammation, and matters at one time did not look well, for I have marked in my note-book "Case for operation", and even decided on the 26th to excise the joint. I did not do so, however, and recovery eventually took place. We discharged him convalescent on October 8th.

But for the impossibility of getting anything fixed in the Asfeld ceilings capable of supporting swinging apparatus, we should more

generally have used suspension-splints; and I know of nothing better for wounds of the ankle, or for cases in which operations have been performed in that region, than the apparatus of Professor Esmarch, as represented in Fig. 4.

CASE LIII.—Eugene Gaillot, Sergeant-Major of the 21st Regiment of the Line, was struck by a ball just posterior to, and a little above, the tip of the internal malleolus. There was no wound of exit, nor could the ball be discovered. For some days nothing unusual was witnessed, but then the ankle began to swell and inflame; free counter openings

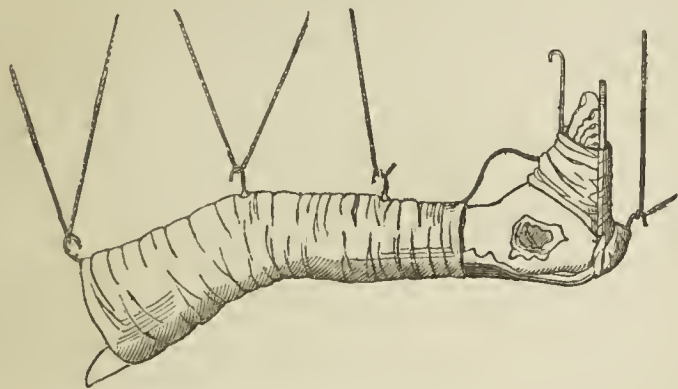


Fig. 4.—Professor Esmarch's Apparatus for Wounds or Excisions of the Ankle-joint.

were made on the opposite side, from one of which the ball, lying almost quite superficially, was readily removed. It was evident that the ankle-joint was now seriously involved. Every care was bestowed on this poor fellow, who was a fine handsome young man of two-and-twenty, but without avail. Fresh abscesses formed up the leg, accompanied with very profuse suppuration; and it became necessary, in order to afford him a chance of life, to amputate the limb. I disarticulated accordingly at the knee-joint, not removing the cartilage of incrustation. The popliteal artery was twisted. For some days the relief experienced was remarkable: he looked a new man, and we expected him to recover. Then he had the fatal rigor; a sweat; his appetite failed; diarrhoea and vomiting followed; and within a fortnight he died quite pyæmic. On account of an attack of secondary hæmorrhage the day but one before his decease, I ligatured the femoral artery. This bleeding would, I consider, have taken place just the same had the ligature been applied to arrest the bleeding in place of twisting the vessels. The bullet, which must have been well-nigh spent, since it did not penetrate the skin on the opposite side of the limb, grooved deeply the lower end of the tibia, just above the articulating extremity, and caused, in addition, a spiral fracture, reaching as high in front as the junction of the middle and lower thirds of the bone. The existence of this fracture, but not its extent, had been previously ascertained.

With reference to fractures of the leg I have not much to say. We had the large number of forty-three cases with fourteen deaths. The majority of these cases, in consequence of the extensive injury to the bone, were submitted to amputation, but a considerable number were treated in ordinary splints, and with excellent results. After an interval of three or four weeks the limbs were put up in fenestrated gypsum bandages, and then the patients could be with perfect safety and great facility removed.

The amputations of the leg were among our most successful cases: six only perishing out of eighteen primary amputations. Of the seven cases of secondary amputation, four died: making a total mortality of ten cases in twenty-five operations. The fatal case of amputation in the middle third was one where Teale's operation had been performed and the flaps became gangrenous. It was the only instance in which recourse was had to this operation. The others were made by long anterior and short posterior cutaneous flaps, and a circular division of the muscular substance.

As might be anticipated, the penetrating abdominal wounds were all fatal. Those in the spine were also very fatal; one man only, who had been wounded low in the lumbar spine, recovering so far as to be able to leave hospital. Of the four wounds of the pelvis, all recovered, as the abdominal cavity was not implicated.

With reference to gun-shot fractures of the femur, it may be observed that all those in the lower third perished. In the middle third, two survived after amputation in the upper third, and two after treatment for the fracture. In the upper third, conservative treatment was most generally adopted, and with a happy result in the four cases already detailed. Five deaths took place—two after disarticulation at the hip-joint, and three from pyæmia and exhaustion.

Perhaps it may not be uninteresting to some readers to figure the bullets by which these shocking mutilations are caused. The first woodcut represents the French, Prussian, and Bavarian bullets, as well as that of the mitrailleuse. The first two weigh respectively 380 and 500 grains; the Bavarian bullet weighs 434 grains; while the mitrailleuse ball is an ounce and three-quarters in weight.

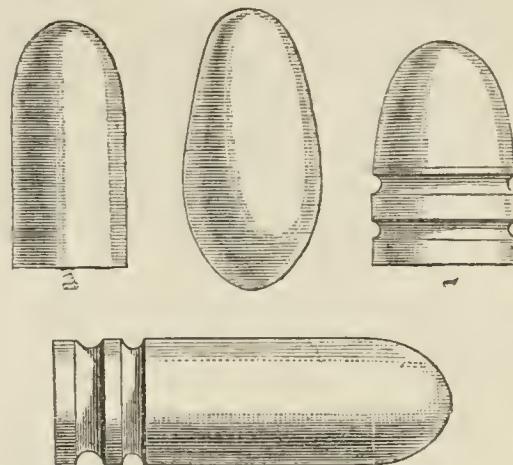


Fig. 5.—Chassepot, Needle-Gun, Bavarian, and Mitrailleuse Bullets, of the natural form and size.

The curious alterations in form which these projectiles assume after contact with the bones may be estimated by a glance at the accompanying woodcuts.



Fig. 6.—A Bavarian Ball completely flattened out against the Femur, against which it lay in close contact. The bone was extensively fractured.

Fig. 7.—A Bavarian Ball which struck the Femur, carrying away a portion of the Bone firmly impacted in it.

Fig. 8.—A Chassepot Bullet which entered the left cheek, and, after ripping up the hard palate, was cut out from behind the right Sternomastoid Muscle.



Fig. 9.—A Needle-gun Bullet, flattened by glancing off the Ilium, which was not fractured. The ball was cut out of the Buttock.

Fig. 10.—A Needle-gun Ball, which traversed the chest from before backwards. Cut out behind with portion of rib impacted in it.

There is now but little more to say. After handing over the dozen remaining patients to the care of our Dutch friends, whose ambulance was then being installed, I started with those of our party who remained with me to the end, for Brussels, *en route* for England, taking with us Colonel Beaudoin, to place him in an ambulance in that city. The colonel bore the journey well, and without fatigue. I parted with him a day or two afterwards with great regret, but in the expectation of seeing him soon again. I was inexpressibly shocked to hear, not much more than a month later, of his unexpected death. He was a brave soldier and a simple-hearted gentleman. He died, as I believe, of a broken heart. Thus terminated our labours at the Caserne of Asfeld.

Our ambulance was now completely separated. Part of the staff had previously started in search of further work, under the command of Dr. Pratt; and their well known and brilliant services at Orleans re

quire no meed of praise at my hands. They were such as to render their old associates both proud and, it may be, a little envious. At Epernay, at Metz, and still later in Switzerland, amongst the famished and perishing troops of the brave but beaten Bourbaki, Dr. Frank, Dr. Webb, Mr. Blewitt, and Mr. Wyman rendered services which, if not so brilliant or so exciting as those rendered at Orleans, are certainly not less praiseworthy or valuable.

The war is now over; peace has been signed; and I may say without affectation that, through many difficulties and dangers, the Anglo-American Ambulance has successfully pursued its humane mission. I believe it has accomplished much genuine good; that it has brought aid and succour in an hour of great distress, when such aid would otherwise have been wholly wanting; and I for one can look back, as I believe so also can every other member of the ambulance, with unalloyed pleasure, and, it may be, a little pardonable pride, to the career of the Anglo-American Ambulance.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE III.—Wednesday, February 22nd.

THE formation of the permanent teeth commences at a very early period, almost at the same time with that of the milk-tooth. The process has been chiefly observed in Man. A small bottle-shaped mass of cells is cut off from the enamel-organ of the milk-tooth, and gradually becomes lower and lower in position until it is placed below the sac of the milk-tooth, to the upper part of which it is connected by a pedicle or neck conveying blood-vessels. It was formerly believed that the permanent tooth was formed in a depression at the side of the dental groove; but this appearance of depression was produced by the removal of the epithelium in the process of preparation.

The process of formation of the permanent tooth is the same as that of the milk-tooth. The former is, when fully calcified, separated from the latter by a thin bony septum. When the second dentition is about to take place, the root of the milk-tooth assumes a worm-eaten appearance, the depressions being filled by a highly vascular material derived from the alveolar periosteum. Absorption is effected by means of a large number of cells developed on the surface of the root; and this goes on till the whole root is removed. At the same time, the bony septum between the temporary and permanent teeth is absorbed, and the milk-tooth drops out. In some instances, the milk-teeth remain with their roots scarcely diminished, while the permanent teeth are taking their place.

The permanent teeth are connected with the milk-teeth only, as described, through the enamel-organ: in all other respects, they are quite independent. A milk-tooth may be entirely wanting; and yet the permanent tooth which should replace it will appear at the proper time.

With regard to the precise relations of the temporary to the permanent tooth, opinions are not as yet settled. Owen holds that the permanent true molars are a continuation backwards of the milk-series. Mr. Flower, however, dissents from this. In animals which have the milk-teeth functionally developed, these are an epitome of the permanent set; the last milk-tooth being a copy of the last permanent tooth; and, in placing the two sets side by side, we see a break in the temporary molar series. Again, where the milk-teeth are only rudimentary, it is difficult to believe the last molars to belong to that series. The Marsupials have only one small temporary tooth on each side of the jaw; in a young Thylacine, this has been found about to be shed when all the other (permanent) teeth were developed. It is difficult, then, to avoid the conclusion that the last true molars belong to the permanent set.

While there are several instances in which the milk-teeth are merely rudimentary, the permanent teeth being well developed, there is not one known example of the converse. The milk-teeth are—if the expression may be used—superadded to the permanent set, and belong to a high grade of development.

Nearly all Mammalia have teeth. In Monotremata, they are not calcified; and even in Edentata they are not entirely wanting. Cetacea can scarcely be said to have no teeth, inasmuch as even the Whale-bone-Whales possess rudimentary teeth at some period.

The number of teeth varies much among the Homodonts. The Great Anteater has 98; and there is a species of Dolphin which has 220—the largest number that is known. In Diphyodonts or Heterodonts, the typical number is 44; and this is rarely exceeded. There is

a fox-like animal which has 48; and there are a few instances of excess among Marsupials, some having 54. Some Cetacea (Homodonts) have the smallest known number; the number in the Narwhal being apparently reduced to two in the lower jaw, there being none in the upper. Among the Heterodonts, the Elephant has only two incisors in the upper jaw, and never more than 28 teeth in all; the common Rat has 20 teeth; and in an Australian Rat there are only 12, there being one incisor and two molars on each side of the jaw.

It is not possible to arrange the teeth of Homodonts in series and give them names. In a genus of Edentata (*Dasybus*), a special tooth is implanted in the præmaxillary bone, and may be called an incisor; and the Two-toed Sloth has on each side a greatly developed tooth, which, however, it is difficult to identify with the canine tooth of Heterodonts.

The names given to the groups into which the teeth of Heterodonts are divided must be regarded as arbitrary. The term incisors is applied to the front teeth, whatever may be their shape and function, which are, in the upper jaw, implanted in the præmaxilla. It must be remembered, however, that this connexion with the bone is only a secondary matter, the teeth originally belonging to the gums. Some teeth, indeed, are implanted in the suture between the præmaxilla and maxilla. In nearly all placental Mammals, there are not more than three incisors above and three below on each side; and the number is frequently even less. Excess over the typical number is very rare till we come to Marsupialia, where they may be four or five on each side.

It has been supposed that, when the number of incisor teeth is reduced, the missing tooth is that on the outer side. The Pig has three incisors, the Babyroussa two, on each side; and there is no doubt that it is the outer tooth which is wanting in the latter. In the Camel and Llama, however, there is a single permanent incisor placed far back, which must correspond to the third. In Bears, there are ordinarily three incisors on each side; but there is a genus in which the first in the upper jaw has disappeared. In the Sea-otter, also, the first incisor is wanting. The rule which has been referred to is, then, not absolute.

No satisfactory definition of a canine tooth can be given, except that it is that which lies behind the intermaxillary suture, and that the lower tooth passes behind the upper one.

The remaining teeth—molars—are divided into false and true, according to Owen. The false molars, or præmolars, replace the milk-molars; the true molars have no predecessors. This definition must, however, be modified, as some of the præmolars do not actually replace temporary teeth. The typical number of molar teeth is 7; viz.: in placental Mammals, præmolars 4, true molars 3; in Marsupials, præmolars 3, true molars 4. When the number falls short of this, the deficiency seems to be in the front præmolars and the posterior molars. But there are, no doubt, many exceptions, as has been pointed out by Owen himself. The four præmolars are rarely all present in Bears; and the missing tooth is the second or third. In some Bats, also, one of the middle præmolars is very small, and entirely disappears in some animals of the group.

CLINICAL MEMORANDA.

MUCOUS DISEASE.

IN connection with Mr. Whitehead's valuable paper on the above subject, which appeared in the JOURNAL of the 11th and 18th February, there is a point in the etiology which may be of some interest, as tending further to elucidate the conditions under which we meet with that somewhat obscure form of disease. Out of four cases that have come under my own cognisance, where mucous casts or membranous shreds were expelled from the large intestines, either alone or mixed with the ordinary alvine evacuations, in three of these this was associated with that rather rare pathological condition, "floating" or movable kidney. On carefully exercising palpation in the right hypochondrium, in each there could be discovered a movable or floating tumour, receding from the impulse communicated by the fingers, the diagnosis of which was made only after repeated careful examination, and rendered as certain as it was possible to be in the absence of positive *post mortem* proof.

Such a coincidence occurring in three out of four cases leads one to the conclusion that, in a considerable proportion of the cases of the so-called mucous disease, the general disturbance of excito-secretory nerve-function, induced by the abnormal position of the renal organ, may be sufficient to destroy the proper balance between normal nerve-excitation and secreting function, whereby the latter takes on that peculiar form so well described in Mr. Whitehead's paper.

That such a pathological combination is necessarily or always present it is not attempted to maintain; for undoubtedly many cases of mucous disease occur and may be satisfactorily accounted for without any *error loci* of the kidney being discoverable. The converse is equally true. But in those cases where the source of irritation is obscure, or insufficient to be regarded as the *origo mali*, I would suggest that a diligent search be made for the renal abnormality. This, when it exists, will almost invariably be discovered somewhere in the right hypochondrium; and its existence can only be ascertained by repeated examination at different times. In those very cases in which it is known to be present, and where the form of the kidney can be distinctly traced immediately beneath the abdominal wall, it will be somewhat disappointing to find, next time the patient is visited, that the tumour has disappeared, the organ having probably slipped back to its normal position.

The drug-treatment found most efficacious in the cases referred to was a combination of the saccharated carbonate of iron and subnitrate of bismuth. Sir James Simpson used to recommend arsenic in such cases, believing that the affection of the intestinal mucous surface was analogous to a psoriasis, or eczema, of the integument, the shreds being thrown off from the former just as the scales are from the latter.

GEORGE HUNTER, M.D., F.R.C.S. Edin.

Linlithgow, March 1871.

REPORTS AND ANALYSES

IN

MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

CHLOROFORM ADMINISTRATION.

A GRADUATED Chloroform-Bottle has been brought before the profession by Mr. John Astley Bloxam, Chloroform Administrator and Surgical Registrar at St. Bartholomew's Hospital. The annexed drawing shows this graduated bottle, which is exceedingly portable and simple. It is identical in character with that introduced by Mr. Ernest Hart ten years since for ophthalmic purposes, and since adopted by Dr. Lionel Beale for microscopic reagents, and generally by chemists for powerful reagents and strong solutions. No assistant is required in



the administration. The chloroform being spread in drops over a large surface of lint, the amount of atmospheric air mixed is very great, and not at all limited. The mouth-piece, which is by many thought objectionable, is not present. The regularity of action of a complicated set of valves (which are liable to get out of order) is not here required, but only attentive observation by the administrator of the patient. The amount of chloroform administered can be readily ascertained by the graduated scale. The bottle is fitted in a neat leather case, of which the length is $4\frac{3}{4}$ by $1\frac{1}{4}$ inches in diameter. The price, complete, is 3s. 6d. each. They are manufactured solely by Arnold and Sons, Instrument-manufacturers by appointment to Her Majesty, St. Bartholomew's Hospital, etc., 35 and 36, West Smithfield, London.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 28TH, 1871.

GEORGE BURROWS, M.D., F.R.S., President, in the Chair.

ON NEURITIS OF THE BRACHIAL PLEXUS.

BY JULIUS ALTHAUS, M.D.

IN this paper the author gave a detailed description of a case of peripheral paralysis and anæsthesia affecting the whole of the right upper extremity, not a single motor or sentient nerve-fibre of the same having been spared. After excluding cerebral, spinal, and sympathetic paralysis, the influence of lead, of hysteria, and other causes, the author traced the affection to a rheumatic inflammation of the brachial plexus before its entrance into the axilla. The case was at first treated with various medicines and Faradisation; but without any beneficial influence. The patient, however, recovered completely by a judicious use of the continuous galvanic current. Dr. Althaus then analysed the mode of therapeutic action of the continuous current in this case, tracing it partly to its power in causing the paralysed muscles, which did not respond to Faradisation, to contract, and thereby preventing their atrophy; and partly to a catalytic influence in effecting a proper relation of the blood-vessels of the affected parts, so as to enable these to take up, and remove into the general circulation, pathological effusions which compressed the nervous matter, and thereby impeded the conveyance of the nervous influence to the distal parts of the nervous territory.

MR. R. B. CARTER asked in which manner the continuous current was applied. Ophthalmic surgeons often had to deal with optic neuritis; and it would be a gain if in recent cases the application of the continuous current were proved to be of good effect in the removal of the products of inflammation. His own experience of the remedy had been limited to advanced cases, attended with atrophy; the result had not been very successful, but this probably arose from not being able to apply the current sufficiently near. He had met with a case in which paralysis of the arm was produced by the use of a crutch. By removing the crutch and applying Faradic electricity, the use of the limb was speedily restored. He asked also whether, when the muscles were recovering under the use of the continued current, their consciousness to the Faradic current was observed to return.—Dr. POWELL asked whether Dr. Althaus had found that electricity had much efficiency in removing inflammatory products elsewhere. He could understand that electricity was useful in restoring the function of nerves after the removal of effusions by medicines; but he doubted its utility in the early stage of neuritis.—Dr. WILLIAM OGLE asked on what authority Dr. Althaus referred paralysis of the arm to disease of the cervical portion of the sympathetic nerve.—Dr. BUZZARD was not satisfied that the case related was not one of hysterical paralysis. He had never met with a case of the kind described which could be ascribed to rheumatic effusion. He asked how long the use of the induced current was continued.—Mr. THOMAS SMITH could not consider Dr. Althaus's case to be one of neuritis; there was no tenderness over the brachial plexus. He asked in what direction the current was applied.—Mr. SAVORY could not accept the explanation given by Dr. Althaus, that the paralysis was produced by effusion on the nerves. What was known of such effusion? if it existed, what was its nature? and how would it produce paralysis? Nerves might be pressed on and even flattened by tumours without losing their functions; and it was difficult to understand how effusion could give rise to paralysis. He would also ask how the electric current caused the vessels to remove effusions.—Dr. ALTHAUS said that the positive pole was applied on the brachial plexus above the clavicle, and the negative to each of the affected muscles. The sensibility to the Faradic current returned but slowly. The occurrence of paralysis of the arms after disease of the cervical sympathetic was mentioned in Mayer's work on *Medical Electricity*. There was no tenderness over the brachial plexus in his case, because the disease had existed four months before it came under his observation, and the acute symptoms probably came to an end in a week or ten days. Benedikt and other authors had mentioned cases where effusions on nerves had produced paralysis. Tumours, when rapidly growing, certainly gave rise to paralysis if they pressed on nerves. He could not explain how the galvanic current dilated the blood-vessels; but there was no doubt of the fact.

[To be continued.]

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEB. 21ST, 1871.

J. HILTON, Esq., F.R.S., President, in the Chair.

DR. MORELL MACKENZIE exhibited a specimen of Constricted Trachea and Syphilitic Deposits in the Liver and Kidneys, which had occurred in a man, aged 39, who was admitted into the Hospital for Diseases of the Throat on November 10th, and died on December 28th. He had, however, been ill for some weeks previously. The prominent symptom was dyspnoea of a very severe and paroxysmal character. Several times the patient was for many hours quite unconscious, pulseless, and with scarcely perceptible respiration. Between the attacks, the patient was well, and even gained flesh. He died suddenly in an attack of dyspnoea. In answer to Dr. Fagge and Mr. Hulke, Dr. Mackenzie stated that the voice was perfectly clear, and that he believed the contraction was due to syphilitic tracheitis.

Dr. MORELL MACKENZIE also exhibited a specimen of Growths chiefly situated on the Vocal Cords of a Dog. He believed that, if searched for, these growths would be found frequent in dogs, although, as far as he knew, their occurrence had not hitherto been noticed.

Dr. MOXON brought forward specimens of Primary Colloid Cancer of the Skeleton, taken from the body of a man aged 23. He called it primary, because the disease affected no other parts than the bones, except the glands.

Mr. WEST of Birmingham exhibited a specimen of Rapidly Growing Cancer of the Upper Jaw, removed from a man twenty-four years of age. The growth did not spring from the antrum, but from the outer wall of the upper maxilla.

Dr. MOXON brought forward a specimen of Syphilitic Inflammation of the Lung from the body of a dock-labourer who had been admitted for fracture of the Spine. The liver, spleen, and kidneys were albuminoid; and there was double syphilitic orchitis. There was consolidation of the lung, of a whitish character, from above downwards, tending to cavities and sloughing, which he believed to be syphilitic. Dr. Moxon, in answer to Dr. Payne, said that the lung disease differed from ordinary pneumonia, in that the septa were thickened.

Dr. MOXON also showed a specimen illustrating what he believed to be the Change of Grey into Yellow Tubercle.

Mr. DE MORGAN showed a Lympho-sarcomatous Tumour removed from the axillary region of a man aged 45, who had been well up to four years ago. Coincidentally with general oedema of the body, a tumour of the neck arose, which after a time subsided. A second tumour appeared under the pectoral muscle, firmly adherent to the latissimus dorsi: it grew to a very large size, and he removed it. Mr. De Morgan believed that the man had suffered from lymphatic disease on the first occasion.

Mr. DE MORGAN also exhibited a Fibrous Tumour with Spicula of Bone, of two years' growth, removed from the lower jaw of a lady forty years of age.

Mr. WAGSTAFFE presented an exceedingly rare specimen of probable Fibrous Tumour of the Heart, which occurred in the practice of the late Mr. Nunn of Lyndhurst. It was removed from the body of a child three months old. The child was quite healthy until a few weeks before its death, when it had occasional transitory spasms, in one of which it died suddenly. The tumour was situated in the substance of the septum ventriculorum. Microscopically, it appeared to be mainly composed of well developed white fibrous tissue. Mr. Wagstaffe said there was only one case on record in the *Transactions* of the Society of a true simple tumour of the heart, and that was of a peculiar cystic form. He considered the specimen, therefore, unique. Its occurrence in a child three months old without interference with nutrition, and with such slight symptoms, made it a case of extreme clinical interest.

Mr. HENRY MORRIS brought forward an interesting case of Femoral Hernia which was reduced *en masse*. The hernia occurred in a female fifty-six years of age. The patient died of exhaustion. The strangulation was of the omentum; but the ileum was involved.

Mr. WARREN TAY exhibited the contents of a Ranula. They consisted of large masses of adipocere, containing also two per cent. of phosphate of lime. They had been increasing for several years.

CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 10TH, 1871.

W. W. GULL, M.D., F.R.S., President, in the Chair.

DR. HANDFIELD JONES read a short paper on Puncture in Anasarca, in which he advocated the making a single puncture in the calves of both legs with a fine trocar, and, after withdrawing the stilette, leaving

the cannula open for several hours, to allow the fluid to drain away. In this manner he succeeded in the first operation in drawing off sixty measured ounces of fluid from the right leg, but only ten from the left, in consequence, he supposed, of the cannula not lying properly in the subcutaneous cellular tissue. In a second operation on the same man, three days afterwards, he drew off 120 ounces of fluid, besides a great deal which ran from the punctures for several days afterwards, sufficient to saturate three blankets. For the performance of the operation, the man was placed in a sitting posture; and this he considered important, as it facilitated the draining away of the fluid.—Mr. COOPER FORSTER asked whether a single puncture only was made, or whether the cannula was allowed to remain. If the latter, he did not approve of it. He himself always adopted a single incision half an inch in length.—Dr. HANDFIELD JONES replied that there was no novelty in the plan of leaving the cannula in the leg, but he wished that the method should be more generally tried.—Dr. DYCE DUCKWORTH expressed a favourable opinion of the single incision. He believed that the puncture should be made in the inner side of the malleolus—a plan recommended by the President.—Dr. HILTON FAGGE referred to the practice largely adopted at Guy's Hospital of using the needle, the surface of the limb being previously greased to prevent as much as possible the irritation caused by the flowing fluid.—Dr. DYCE DUCKWORTH alluded to the advantages of poppy fomentations also in diminishing the irritation from this cause.—The PRESIDENT remarked that, in the oedema of cardiac disease, puncture answered admirably, but in that due to renal disease it was of less benefit, if it did not positively do harm. It was necessary to consider which forms of oedema should be punctured, and also which were the less dangerous seats for the operation. He had no experience of the trocar, but it seemed formidable. He considered it important to puncture early, and often the needle was then sufficient, a matter of some consequence, as many patients objected to surgical instruments. He had drawn off serum of a specific gravity of 1006, so that the fluid was not always of a high specific gravity. As the oedema went on, however, there was effusion of fibrine, and a form of oedema durum took place. In these cases puncture was too late. Greasing of the limb sometimes prevented inflammation.—Dr. HANDFIELD JONES remarked, in reply, that the trocar had the advantage of keeping the fluid off the leg.

Dr. HANDFIELD JONES read a paper on Two Cases of Chorea, in both of which he gave complete urinary analyses. The conclusions which he drew from these cases were the following. 1. During the height of the chorea, the amount of the urinary excretion was much above what it was when the malady had ceased. 2. The excretion of urea during the chorea period was enormous, being no less than 10 grains per lb. of body weight, the normal amount being 3 or 3.5 for an adult. During convalescence, the urea amount fell to 3.9 grains per lb. of body weight. 3. The phosphoric acid excretion varied like the ureal, being no less than 60 grains during the acme of the disease, and only 14.5 during convalescence. The mean amount adopted by Dr. Parkes is 48.8 grains for an adult. 4. The uric acid was in fair amount during the acme of the malady, but became *nil* when recovery was established. 5. An increase of 17 lbs. in weight coincided with this great lessening of excretion and cessation of the neurotic disorder.—In reply to Dr. Anstie, Dr. HANDFIELD JONES said that the patients had ordinary diet, with meat, and that there was no disgust for food at the time of fever.—Dr. BROADBENT asked at what time the urine was examined, and remarked on the importance of considering the effect which hospital diet produced on the condition of the urine. He looked upon the state of the urine as due to the state of the nervous system, and the changes in it as due to diet. The seat of the disease was in the corpora striata or optic thalami; sometimes there was embolism, and, when there was maniacal excitement, disease of the cerebral hemisphere.—Dr. GREENHOW believed chorea to be a constitutional disease due to various states. He related the example of a family in which several nervous diseases, including chorea, were strongly marked.—Dr. FAGGE wished to know how Dr. Broadbent's theory fitted in with the fright which precedes in many cases. Here there were surely no embolisms. Dr. Langdon Down had informed him that he had observed no cases of chorea at the Idiot Asylum during a period of five years, and that he (Dr. Down) had published the fact that idiots do not suffer from chorea.—Dr. BROADBENT rejoined that he did not allude to any one form of disease of the corpora striata and optic thalami, but that these were the seats of the disease. He replied, in answer to Dr. Anstie, that there was no inconsistency between embolism and neuroses of various kinds affecting these portions of the brain.—Dr. BUZZARD referred to a case of a child born with chorea. The mother had been much depressed in spirits during gestation.—Dr. HANDFIELD JONES referred to a case in which a poisonous dose of chloral was taken, after which there were no movements.—The PRESIDENT said there were two kinds of chorea.

One occurred in children under fourteen, who did well if kept in bed and properly fed, the food being well-prepared, so that they did not bolt it. The more or less horizontal position was good in such cases. The other kind, the emotional, occurred generally about fifteen, and was some times fatal.

Dr. BROADBENT read particulars of two cases of Paralysis of the Soft Palate, resembling diphtheritic paralysis. The first, a boy aged 3, was brought as an out-patient to St. Mary's Hospital on September 10th, 1866. In July a bucket of water had been thrown over him, and he had had a cold and sore throat. Afterwards the voice was noticed gradually to become nasal and articulation imperfect, and for some days all fluids taken had returned through the nose. He was also weak on his legs and liable to fall. The soft palate was pale, flabby, and motionless. The medicine ordered was cod-liver oil and steel wine; sulphate of strychnine, one-sixtieth of a grain; with dilute phosphoric acid, five minims, in water, three times a day. The improvement was rapid, and on October 27th the patient was quite well.—In the second case, that of a girl aged 6, admitted as an out-patient May 23rd, 1870, there was not only paralysis of the soft palate, but also loss of power in the laryngeal muscles, and great weakness of the lower extremities. The voice was nasal; fluids returned through the nose, and there was danger of suffocation when solids were swallowed. When she spoke, a great rush of air preceded the production of sound, showing the imperfect adaptation of the vocal cords; and when the fauces were irritated there was neither sensation nor retching. The treatment was similar to that adopted in the previous case, and recovery took place, but much more slowly. The patient was discharged on August 29th. These cases were, in many respects, if not altogether, similar to the cases of paralysis following diphtheria; and the interest attaching to them related to the question whether paralysis of this character was a specific disease or a form of nervous paresis capable of being produced by other acute disease, or by debilitating influences generally.—Dr. HERMANN WEBER had observed paralysis follow angina tonsillaris on several occasions, generally about fourteen days after the commencement of inflammation. It showed itself first by a change in the voice and by difficulty of deglutition. He thought that the affection was local and not reflex, and travelled from the periphery. He did not think diphtheritic paralysis specific.—Dr. SILVER had at present under his care a case somewhat related to that narrated by Dr. Broadbent. The patient came into the out-patient room, walking with difficulty, yet quite able to move his feet; he took off his hat, and sat down. His face had a curious expression, being slightly drawn to the right; and the buccal muscles were so paralysed, that the saliva dribbled from his mouth. He had ptosis of the right eyelid, and there was dilatation of the right pupil. On being asked a question, he was found unable to speak; and on further examination, it was discovered that he was quite unable to swallow. His palate was paralysed, and his tongue could hardly be protruded beyond the teeth. He was admitted as an in-patient, when it was found that he had no power of retaining his urine, although there was neither paralysis nor anæsthesia of the lower extremities. He was fed by the stomach-pump, and he had now somewhat improved, and could swallow imperfectly, but could not, though perfectly intelligent, utter a word. There were antecedent right hemiplegia, and a history giving suspicion of syphilis. This case was allied to those described by Trousseau, but was not progressive in its nature.—Dr. FAGGE referred to two cases which tended to show the important bearing which the nerve-supply of the throat had in diphtheria and laryngeal affections. The pulse was always greatly affected.—Dr. ANSTIE had observed paralysis follow mumps.—The PRESIDENT was struck by the report of the deep inspiration. Were the thoracic walls quite free and the limbs unaffected?—Dr. BROADBENT replied that the limbs were very weak. He thought that Dr. Silver's case was one of glosso-pharyngeal paralysis. In all the cases which he had himself seen, the disease had come on rapidly, although such was not the case in those first described.—Dr. WILTSHIRE referred to paralysis of the pharynx following typhoid fever and syphilis.—The PRESIDENT had seen cases of throat-affection after other diseases than diphtheria affecting the cord. Microscopically, anæmia only was observed.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, FEBRUARY 1ST, 1870.

JOHN THORBURN, M.D., President, in the Chair.

Tumour of the Base of the Skull.—Dr. SIMPSON showed a specimen. It appears to have originated in the basilar process, and had pierced through the dura mater, causing flattening of the superadjacent parts of the brain. The brain was softened, and infiltrated. Downwards, the growth had slightly affected the pharynx. Its microscopic character

shewed it to be malignant. During life the most prominent symptoms were ptosis of the right eyelid, and subsequently fixation of the eyeball from paralysis, with gradual impairment of vision.

Sudden Death from an Unusual Cause.—Mr. LUND related the history of a fatal case of obscure illness in a gentleman, aged 54. For many years he had been subject to attacks of intense pain a little to the right of the scrobiculus cordis. It was always brought on by exercise, but had no connection with the taking of food. Mr. Lund was summoned to relieve him during one of these attacks. He found that it was relieved by pressure, and that the violence of it was intermittent. It seemed probable that it was due to colic, or the passage of a gall-stone. For a time the patient was relieved by chlorodyne, but the pain soon returned, and he tossed about in great agony till he became exhausted and quickly died. At the necropsy, nothing was found to account for the symptoms till the duodenum was examined. This was found very much thinned out for four or five inches, and near the opening of the bile-duct it seemed possible that a minute perforation had occurred, though none was actually found. The wall of the gut was so thin at this part that, when stretched between the fingers, it became like a piece of muslin. It seemed probable that the rapid dissolution was to be accounted for by the escape of gas into the peritoneum.

Tumour of Orbit.—Mr. GLASCOTT, for Dr. LITTLE, showed a case in a man. It had existed eight months, was growing rapidly, and was probably malignant.

Case of Idiocy.—Mr. CLEMENT detailed the particulars of a remarkable case, the subject of which had recently died in Frithlington work-house. He was thirty-eight years of age, was dumb from birth, and became blind when six months old. He walked at fifteen months, and up to the age of eighteen years was erect and straight. From this time, however, he gradually lost the power of walking, and his joints became flexed and ankylosed, so that for many years he had sat or lain huddled up "in a lump." He was of a most violent temper, and, from this cause and a peculiar brittle condition of his bones, it was a very common occurrence for him to break some of the latter by knocking himself against the furniture. At death, there were nine separate fractures found; and these having generally united in a bad position added to his grotesque appearance. It had very often happened, too, that fracture took place through the site of a previous one. He was very filthy in his habits, and died at length of bronchitis which he probably caught by sitting long on the water-closet, whither he had always to be carried before he would partake of his food.

Mr. BRADLEY read detailed notes of the appearance of the *Brain* of the same case. It weighed 44 oz., and in its general aspect presented nothing remarkable. The most noteworthy features were the large size of the collateral sulcus on the right side and its almost complete absence on the left, and the difference between the two sides of the cerebellum. The right was of normal size, while the left was a third less in every dimension.

Uterine Tumour.—Dr. L. ROBERTS showed a submucous fibroid of the size of a fist, which he had removed with the *écraseur*. It was attached to the anterior surface by a base two inches in diameter, and was interesting as shewing the thickness which may be cut through with safety by the *écraseur*.

Treatment of Gonorrhœa by Tanno-Glycerine Bougies.—Dr. WAHLTUCH made some remarks on this subject, and exhibited specimens of the bougies.

Childbirth fatal from Anæmia.—Mr. MELLOR related a case to which he had lately been called. The lady had been intensely anæmic for some years. Her labour was easy and short, but she lost a small quantity of blood with each pain at the beginning of it. Though a small quantity relatively, yet in her case it was more than could be borne, and she sank in two hours after the birth of her child.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, FEBRUARY 11TH, 1871.

JAMES STANNUS HUGHES, M.D., President, in the Chair.

Mr. ILLINGWORTH, Assistant-Surgeon Royal Artillery, exhibited a specimen of Aneurism of the Femoral Artery, which had become dif-fused in the lower part of the thigh at the commencement of the popliteal vessel, and so had necessitated the removal of the limb. The operation performed was a modification of that proposed by Mr. Teale.

Dr. HAWTKEY BENSON reported a case of Cerebral Aneurism. The patient, a woman, was suffering from rheumatic fever, and evidences of both aortic and mitral valve-disease were present, when she became suddenly hemiplegic on the left side, the face being turned towards the

right. There was no rigidity nor twitching of the affected muscles ; but there was absolute loss of both motion and sensation on the left side of the body. The mental faculties remained unaltered. In a few days the anæsthesia entirely disappeared, but the power of motion never returned. Death resulted from an intercurrent attack of bronchitis. The right middle cerebral artery was occluded by an embolus. The traces of disease were strictly limited to the grey matter of the right corpus striatum, which was softened and tinged a brownish red. The remainder of the right hemisphere of the brain was in every respect healthy.

Mr. WILSON exhibited two Eye-balls, which he had recently enucleated from two patients to obviate the occurrence of Sympathetic Ophthalmia. In the first instance, injury had been caused by a splinter of stone in blasting. When Mr. Wilson was consulted, the cornea was opaque ; the patient complained of intense pain, both circumorbital and in the eye itself. The power of accommodation in the uninjured eye was impaired, and there was great photophobia. In consequence of these last symptoms, the affected eye-ball was removed without delay. In it the retina, choroid, and areolar tissue had quite disappeared. There was a large collection of cheesy matter, and also a coagulum of blood, in the posterior chamber. In the second case, a grain of shot had entered obliquely at the junction of the cornea and sclerotic, and had lodged in the ciliary region. After removal of the eye the choroid membrane was seen to be denuded of its epithelium, and the retina was completely separated from the choroid. In this instance, too, sympathetic symptoms in connection with the uninjured eye had called for the removal of the diseased one. Mr. Wilson referred to the fact that the fifth nerve was generally the channel of propagation of disease to the second eye in cases of sympathetic ophthalmia.

Dr. EDWARD HAMILTON showed an example of a large Tumour engaging the Upper Jaw. It was probably myeloid or fibro-plastic in character ; and he had removed it together with the superior maxillary bone. Six years ago a small tumour had grown on the upper alveolus, and had been removed. An interval of two years then occurred, after which the present growth was observed. The absence of any glandular contamination, or of constitutional cachexia, with the fact of the slow growth of the tumour, went to establish its non-malignant nature.

Dr. BARTON detailed a case of Caries of the Vertebrae leading to Psoas Abscess. The malady commenced five years ago, the earliest symptoms having been a feeling of tightness in the right side of the abdomen. A prominence was noticed over the last dorsal vertebra. Under suitable treatment the patient rallied, and the disease was in abeyance for four years. In December, 1870, she was readmitted to hospital. At this time a fulness was observed in the *right* iliac fossa, and in Scarpa's space in the *left* thigh there was a large fluctuating tumour. This latter seemed to be isolated, and accordingly its contents were evacuated by means of a Chassaignac's drainage-tube. Within three weeks' time from the opening of the femoral abscess, the fulness in the right iliac fossa began to disappear, and, as the discharge from the former continued, it was surmised that the two abscesses must have communicated with each other. After death such proved not to have been the case ; for the abscess in the iliac fossa had made its way downwards under the crural arch, and had become diffused among the muscles of the right thigh—a state of things that sufficiently accounted for the subsidence of the abdominal fulness ; while the femoral abscess on the left side communicated with the diseased vertebra, the last dorsal, through a peculiar sinus which traversed the entire length of the psoas muscle, and through which the supply of matter to the sac of the abscess was kept up. The disease appeared to have originated in the intervertebral cartilage.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, FEBRUARY 17TH, 1871.

ALBERT J. WALSH, Esq., President, in the Chair.

Mr. R. ST. J. MAYNE exhibited a recent specimen from the body of a man who had lately died in the Meath Hospital from the effects of a Punctured Wound in the Chest-Wall ; also, a hand and forearm removed by a modification of Teale's operation for an extensive injury.

Mr. FLEMING detailed a case of impaction of a Foreign Substance in the Larynx which had terminated fatally in consequence of the super-vention of Pneumonia. The larynx was shown to the members and visitors present.

Mr. CROLY read a paper on seven cases of Hernia lately treated by him. He presented a dried specimen from one of these cases, showing an occlusion of the intestine which happened after the operation and led to a fatal result.—An interesting discussion on the subject of hernia ensued, in which the President, Messrs. Hargrave, Wharton, William Stokes, B. Wills Richardson, M. H. Stapleton, O'Leary, and others took part.

THE Subscriptions to the Association for the year 1871 become due in advance on January 1st. All which are not already paid, should be forwarded to the General Secretary, Mr. T. Watkin Williams, 13, New Hall Street, Birmingham ; or to the Secretaries of Branches.

BRITISH MEDICAL JOURNAL.

SATURDAY, MARCH 11TH, 1871.

MEDICAL REFORM.

WE announced last week that the Right Hon. T. E. Headlam was about to ask leave to bring in a Bill for the purpose of Amending the Medical Act 1858, on a scheme which embodied the main features of reform approved by the Association and the profession on many public occasions at which they had been considered, and which, to the approved provisions of the Government Bill of last year, added that of direct representation of the profession in the Council. The experience of Mr. Headlam on this question ; his sincere interest in the completion of medical reform, towards which he has largely contributed ; and his advantageous parliamentary position for such an object, indicated him as the fittest and most influential adviser who could be selected, and the most powerful independent member who could be entrusted to advance in Parliament the progress of medical reform. After careful and serious discussion and conference with Mr. Headlam and many medical and other members of the house, notice was given. It was then found, however, that another measure—about which much has been written, but which has totally failed to conciliate medical support—would be pushed by way of opposition, and that a gentleman had been found who would introduce it into the house. Mr. Headlam and other advisers were of opinion that this measure was utterly impracticable, and must prove an immediate and disastrous failure. He was further strongly of opinion that the introduction of two Bills—rival schemes as they would be described—would have a very damaging effect by publicly indicating a tendency to internal discord and professional strife. He was unwilling to allow the real and substantial measure of the Association to be brought into disrepute by the almost simultaneous introduction of the unreal and impracticable measure referred to, and, satisfied that the latter would of necessity meet an early and disastrous shipwreck, he has declined to entangle his seaworthy craft in the ruin. The fate of the proposed scheme is inevitable and immediate. Its present position is to obstruct and discredit the efforts of serious reformers ; but Mr. Headlam is determined that it shall not add to its injury of obstruction that of a public and scandalous discord. It is needless to say how much the necessity for momentary inaction produced by this sham display of amateur legislation is to be regretted. If persisted in for long, it will destroy all chance of legislation this session. It has already introduced a dangerous delay at a critical moment, and the probable result will be to sacrifice the objects of a profession to the purposes of a newspaper advertisement. The Bill has nothing serious or rational in its character so far as it has any novelty at all ; and, while the most experienced members concur in approving Mr. Headlam's determination to avoid the unseemly squabble which the introduction of such a scheme challenges, and to maintain the parliamentary character of the profession untouched by the sneers which would be excited, they concur also in the deepest

regret that a Bill, which is obviously not worth the paper on which it is printed, should be, as if it were a serious measure having a chance of success, pushed forward at this time, after a manner which endangers to the utmost degree the objects which its promoters seek.

THE QUESTION OF THE EMPLOYMENT OF EXPLOSIVE BULLETS IN THE FRANCO-GERMAN WAR.

ONE remarkable feature in the war between Prussia and France which has just been brought to a close has been the persistence with which the charge of explosive bullets being used has been maintained, notwithstanding repeated denials. Each side has accused the other of employing these ingeniously cruel missiles ever since the commencement of the war; but the Germans more particularly have reiterated the charge against the French. In September many of the French newspapers contained complaints that the Germans—more particularly the Baden troops—used explosive bullets. The complaints were declared by the Germans to be unfounded, and no satisfactory proof of this declaration being incorrect was ever made public; at the same time, the German newspapers declared that the French were using explosive bullets. Count Bismarck, in a despatch addressed to the North German representatives at various Courts, dated January 9th, declared that detonating bullets were used by the French at the battle of Woerth, and mentioned the names of two officers who had been wounded by them. In the same despatch he repudiated the accusation of a French commander against the Baden troops, that they had used explosive projectiles contrary to the stipulations of the St. Petersburg Convention. Both the French Government, by its delegate Minister for Foreign Affairs, Count Chaudordy, and Marshal McMahon, who commanded the French army at Woerth, have given the strongest denials to the charge. Count Chaudordy stated in a circular addressed to the representatives of France in different countries, and dated January 26th: "As regards explosive bullets, we can in the most positive manner affirm that never can a French soldier have made use of a projectile of this sort. If any were picked up on the battle-field, they must have come from the enemy's ranks." Marshal McMahon on two occasions publicly denied that explosive bullets had been used in the army under his command. In a letter to Count Bismarck, dated Wiesbaden, February 17th, 1871, which was afterwards published, the Marshal wrote: "I have requested the generals of artillery, who are in considerable numbers at Wiesbaden, to give me their conscientious opinion on the question, whether explosive bullets could have been fired by our soldiers at the battle of Woerth. All these officers have declared that it was impossible, because no explosive bullets had been made in France for the Chassepôt-rifle, and this was the only kind of gun in the hands of the troops who fought at Woerth." And he added in the same letter: "In conclusion, M. le Comte, I remain convinced that no explosive bullets were fired at Woerth by the French." A formal denial was also given from Paris by General Suzanne, that explosive bullets had ever been issued to any French soldiers engaged in the war. Notwithstanding these numerous asseverations, Count Bismarck repeated the accusation in a circular-note addressed to the representatives of the German empire in foreign countries in the latter part of last month. Thus each army has accused its adversary of having used explosive bullets, and each has strenuously denied the charge.

What have been the proofs put forward on each side of the accusation being a well-grounded one? On both sides they have been the characters of certain wounds, and the broken and distorted condition of the projectiles found in them; while on the German side it has been stated that explosive bullets for the so-called *fusil-à-tabatière* were found among the ammunition captured at Strasburg. It was also stated that at the battle of Woerth bullets in some instances were observed on striking the ground to scatter the earth, and were heard to explode; but surely this could not be seriously maintained as a proof of the alleged infraction of the St. Petersburg Convention by any one ac-

quainted with the sounds and sights of a battle-field! As regards the characters of the wounds supposed to have been produced by explosive bullets, no sufficiently minute and scientific details of them have yet been published to warrant a conviction of such an origin being rightly attributed to them. The extent of the mischief done, the scattered fragments of the bullet, have been the signs mainly depended upon as proofs. Perhaps nowhere has there been so much experience of the nature of explosive bullet-wounds as there has been among English officers in India, from their use (now in a great measure given up for reasons that need not here be referred to) in shooting the wild animals of that country. When an explosive bullet bursts within one of the cavities of the body, the animal is at once killed by the shock, the area of destruction among the viscera is immense, and the disintegrated and pulped tissues are impregnated with the odour of the vapours resulting from the ignition of the detonating compound. But in wounds of the extremities the same distinctive evidence is not generally afforded. The destruction, though great, is not greater than often happens from solid bullets. The smashing up of the explosive bullet, too, is not more complete than often happens with solid bullets when they are made of soft lead. Neither great destruction of tissues, nor distortion of a bullet, nor its separation into several fragments within the body, is any proof by itself that a wound has not been inflicted by a solid bullet. In one instance, the fact of a German officer being wounded by several fragments of a bullet at the same instant was put forth as evidence that the projectile had exploded just before striking him; but this accident has frequently occurred from a solid bullet having happened to strike a stone in front of a soldier. We concur in the propriety of the caution which Marshal McMahon, in his letter of the 17th February, stated to have been exercised with regard to assertions which had been promulgated by some officers in the French army after the battle of Sedan that explosive bullets had been used against them. "After the battle", writes the Marshal, "some wounds were attributed to explosive bullets; but this opinion, uttered by surgeons on seeing irregular fragments of lead taken from wounds, has never appeared more to us than a mere conjecture, against which we were to be on our guard, knowing how difficult it is to understand all the shapes which balls may take in their course or the effects which may be produced by them."

There remains the fact stated, that explosive bullets were found among the stores of ammunition captured at Strasburg. But this is no proof that explosive bullets had been issued to the French troops for use. There is no reason for doubting that stores of the well-known powerful incendiary and explosive bullet adapted to the Prussian needle-gun by Von Dreyse still exist in Germany, but this is no proof that any were issued to the German troops for use in the war with France. When the St. Petersburg Convention was entered into by the principal powers of Europe in 1868 to abstain from the use of all explosive projectiles less than 400 *grammes* in weight, one of the stipulations was that "the engagement shall cease to be obligatory when, in a war between powers which have joined the Convention, another power not a party to the Convention shall join one of the belligerents." Baden was not a party to the Convention, and France had a right to have a store of explosive bullets in hand, ready to meet the casualty of having to encounter an enemy who might choose to make use of such projectiles. It is not to be expected that every power would do what the Government of this country did on joining the Convention. There were then immense stores of explosive bullets in England—the Metford bullets, adapted to the Enfield rifle—but no sooner was the St. Petersburg Convention agreed to, than they were all ordered to be destroyed; and they were destroyed so thoroughly that none now remain.

From the foregoing considerations we are led, then, to the conclusion that the charges which have been put forward of explosive bullets having been used by the contending armies in the Franco-German war, now happily at an end, have been groundless; and we are inclined to believe that the articles of the St. Petersburg Convention have been faithfully adhered to, notwithstanding the mutual recriminations to the contrary, by both French and German Governments.

THE REPORT OF THE ROYAL SANITARY COMMISSION.

AT the meeting of the Metropolitan Counties Branch on Friday last, Mr. Heckstall Smith, the President, referred to the Report of the Royal Sanitary Commission, of which he held in his hand an early copy, for which we were indebted to the courtesy of Sir Thomas Watson. A correct outline of the main features of this Report was presented to the profession some weeks since. The Commission itself is the issue of the efforts of the British Medical and Social Science Associations. It is deeply gratifying to find that the objects which the eminent men who prepared the memorandum and memorial preliminary to its appointment had in view are amply justified, and their recommendations affirmed, by the Commission. We shall take occasion to compare the recommendations of our State Medicine Committee with those of this Report. It will be seen how closely they agree. If they be carried out, we shall have a consolidation of the Health Departments of the Government, under a Minister of Health and Poor-law; consolidation of the sanitary laws; registration of sickness; the attribution of sanitary functions to Poor-law medical officers; compulsory registration of live and still births; a public recognition of State Medicine; and other great reforms whose advocacy the Association has undertaken of late years. Such measures, identified with the names of Stokes, Acland, Farr, Rumsey, and Stewart, will tend to the elevation of the profession and the welfare of the public. We have said repeatedly, in advocating them, that our Association has never been more wisely or more nobly occupied than in forwarding them. Nor can it now do better than continue to throw all its energies into the work, by examining the recommendations of the Commission minutely, and urging forward the heavy work of legislation which is their due sequence.

MR. J. CLERK MAXWELL has been appointed Professor of Experimental Physics in the University of Cambridge.

THE next primary examination for the diploma of membership of the Royal College of Surgeons will take place on the 1st April. There will be others on the 8th and 22nd respectively.

DR. HEYWOOD SMITH has been appointed Physician to the Hospital for Women, Soho Square, to fill the vacancy caused by the resignation of Dr. H. J. Sanderson.

ONE of the last acts of Mr. Göschen as President of the Poor-law Board was to intimate his intention to bring in a bill for the establishment of dispensaries in connection with the Poor-law medical system in the country, on the same principle as in the metropolis.

ON the occasion of Professor Skoda's retirement from his chair in the University of Vienna, he received ovations. The students have made arrangements for a torch-light procession in his honour; and his friends have opened a subscription list for a portrait of the distinguished professor, to be placed in his lecture-theatre.

AT a recent meeting of the Trustees of the Chard, Crewkerne, Ilminster, and South Petherton Friendly Society, it was resolved that, in consequence of the impracticability of reinstating it, the funds, amounting to about £600, should be divided between the Crewkerne Hospital and the Taunton Hospital—one-third to the former, two-thirds to the latter.

ST. THOMAS'S HOSPITAL.

AT a General Court of Governors of St. Thomas's Hospital held on Thursday, March 9th, Mr. William Mac Cormac, F.R.C.S., late Surgeon to the General Hospital, Belfast, and Surgeon-in-Chief of the Anglo-American Ambulance at Sedan, was elected Assistant-Surgeon to the Hospital. Dr. Richard Liebreich was also elected Ophthalmic Surgeon. Mr. Wagstaffe has been unanimously appointed resident assistant-surgeon, the duties of which appointment he is in every way qualified to fulfil.

THE BLAIR INFIRMARY, BOLTON.

MR. JAMES KNOWLES of Eagley has offered five acres of land at Turton, as a site, if the trustees should deem it suitable. The proposed Infirmary is to be erected at a cost of £30,000, and Mr. Blair bequeathed a further sum of £10,000 as an endowment.

ROYAL COLLEGE OF SURGEONS.

THE vacancy in the Court of Examiners of the Royal College of Surgeons, occasioned by the resignation of Mr. Samuel Solly, will be filled up at the next meeting of the Council. The names of several gentlemen have been mentioned, as Messrs. Curling, Birkett, and Holden, members of the Council; and Messrs. Holmes, Callender, De Morgan, Power, etc.

SAVERNAKE COTTAGE INFIRMARY.

A CONTRACT has been entered into for the erection of the building for £2955. Subscriptions have been promised to the extent of £2500. The Marquis of Ailesbury has given upwards of four acres of land for the site, and the Marchioness has undertaken to defray the expense of erecting convalescent and day-rooms, about £250. The building is to be completed by the 1st October.

OUT-PATIENT HOSPITAL REFORM COMMITTEE.

A MEETING of this Committee was held on Monday to consider the final report. The consideration of the report of the Subcommittee on Poor-law dispensaries and a portion of that on out-patient hospital relief were, however, alone overtaken. An adjourned meeting will be held to complete, if possible, the final report on Monday, at the Hospital for Women, Soho Square, at 8 P.M. It is probable that a general meeting of members of the profession will be called for the purpose of considering the report of the Committee.

HOW THE VACCINATION ACT IS NOT CARRIED OUT.

AS an illustration of the great necessity of enforcing on guardians a more stringent observation of their duties in carrying out compulsory vaccination, we may mention a parallel instance to that which we lately recorded as having occurred at South Shields. In an union in one of the home counties, the chairman of the board of guardians, who was privately blamed for the neglect of vaccination in his district, stated distinctly that, although he had given the most careful attention to his official duties, he was quite unaware that the enforcement of the Vaccination Act was one of them.

CONTAGIOUS DISEASES ACT.

ASSISTANT-SURGEON A. B. R. Myers, Coldstream Guards, has forwarded to us the following report, proving the highly favourable influence on enthetic disease which has been exercised by the operation of the Contagious Diseases Act, among the 1st Battalion of the Coldstream Guards, lately quartered at Windsor.

Station.	Period of Six Months.	Disease.	
		Primary Syphilis.	Gonorrhœa.
London ...	Sep. 1, 1869, to Feb. 28, 1870 ...	72	28
„ ...	Mar. 1, 1870, to Aug. 31, 1870 ...	66	31
Windsor ...	Sep. 1, 1870, to Feb. 28, 1871 ...	38	13

The diminution of disease in the last period as given above is therefore well marked (in round numbers one-half), but by separating the diseases contracted in the districts under the operation of the Act from those contracted elsewhere, the contrast becomes extremely marked and really more truthful, thus—

	Syph. prim.	Gonorrhœa.
Contracted in Windsor	18	7
„ Elsewhere	20	6
Total...	38	13

It may be said by some that the limited statistics obtainable at Windsor can have no weight in the great sanitary questions now under special public notice; but, granting that they are limited, it appears to me that, in consequence of the half-yearly change of quarters of the Foot

Guards, no town can give better evidence of the effect of the Act in diminishing or otherwise venereal disease in our army. Before the Act was enforced at Windsor, an increase of venereal disease in the Battalion was generally the rule; and in 1858, when a student at the Lock Hospital, I well remember how almost invariably the worst cases of disease amongst the female patients were from Windsor or Aldershot. Now what a change has been effected! The figures given above, and those already published by some of my colleagues and myself, give the same certain evidences of the great benefit of this Act to our soldiers, limited as its power is there; and as the cases recorded under "elsewhere" are chiefly of disease contracted in the neighbourhood, it is reasonable to infer that, were the Act to be extended to the outlying districts, its beneficial effects would be proportionately increased.

THE WEST KENT GENERAL HOSPITAL.

At a special meeting of the Governors it has been resolved, by a majority of thirteen to four, to erect a fever-ward, Mr. Arkcoll having offered £1000 for that purpose.

M. DUCHENNE DE BOULOGNE.

On Monday afternoon, M. Duchenne de Boulogne gave an interesting demonstration on the action of the muscles of the upper extremity to the members of the staff and the students of St. Thomas's Hospital in the lecture-theatre. M. Duchenne also explained his theory of the action of the intercostal muscles in respiration. M. Duchenne gave a similar demonstration at Guy's Hospital a few days ago.

DEATH FROM CHLOROFORM IN THE EDINBURGH ROYAL INFIRMARY.

We regret to announce a death from chloroform in the Royal Infirmary on Friday of last week. The patient had been admitted under the care of Dr. Gillespie for dislocation at the shoulder-joint, which was being reduced when the fatal occurrence took place. At the examination which was made after death, no organic lesion of any organ was discovered. This is, we believe, only the second death from this cause which has occurred in the Infirmary since the introduction of chloroform.

AS IT SHOULD BE.

On the occasion of the funeral of the late Army Assistant-Surgeon Count Wollowicz, whose death was noticed in the *BRITISH MEDICAL JOURNAL* on the 25th ult., the captain commanding H.M.S. *Hector*, in the Southampton Water, offered to send a firing party of Marines, as he was aware that no means of paying this last mark of military respect to the deceased existed at Netley. The offer was accepted. Several of the naval officers also attended the funeral. The kind feeling thus exhibited was greatly appreciated by the officers of the Army Medical Staff.

RAILWAY COMPENSATION.

In an important railway case tried lately, the Lord Chief Justice said that he was in the habit of suggesting, in actions on account of railway accidents where there was a conflict of opinion between the medical men as to the period of the sufferer's recovery, that a maximum sum should be given on the worst view of the case, to be reduced *pro tanto* after an examination by a medical man at the end of the period named for probable recovery, if the patient were in a better state of health; but that, if he remained in the same state, then the damages should stand. Mr. Chambers said he thought it a good suggestion; and it was adopted.

AID TO SICK AND WOUNDED IN WAR.

The Committee of the International Aid Society have issued a printed series of sixty-two questions, with a view to getting replies on the subjects embraced in them from those who have been practically engaged in the operations of the Society on the Continent during the war just concluded. The questions include all the points which have been mooted regarding the working of the Geneva Convention; the benefits and alleged evils of international aid in time of war; inquiries on hospital organisation; on the best means of field-transport; on any special

results gained in medical and surgical experience during the war; on the best methods of utilising female labour during a campaign; on the most speedy and reliable modes of conveyance and distribution of stores; and on a variety of other subjects of equal importance, respecting which information derived from personal observation will be extremely valuable. We hope that those who have enjoyed opportunities of throwing light on such matters will not fail to respond to the queries put to them by the National Aid Society. It is only by gathering experience from all sides, and afterwards carefully collating it, that definite conclusions of value can be arrived at. Had the Society had the means of referring to such information when it started upon its mission, the difficulties with which it has had to contend would have been greatly lessened, and its sphere of usefulness probably much extended.

BRITISH MEDICAL BENEVOLENT FUND.

At the usual monthly meeting held on Tuesday week, the Committee granted relief to the extent of £60 to nine applicants, while two other cases were postponed for further inquiry; two names were also added to the list of candidates for annuities. A special vote of thanks was passed to Dr. Thorne Thorne, who has acted as Honorary Financial Secretary for the past three years, but retires on his appointment as Medical Inspector to the Privy Council. Mr. Charles S. Webber has kindly undertaken the duties of the office vacated by Dr. Thorne. The following gentlemen have recently consented to assist the Committee by acting as honorary local secretaries for their respective neighbourhoods: Dr. C. Cocks, Ross; Dr. W. Vawdrey Lush, Weymouth; Dr. J. Thompson, Bideford; E. Pye-Smith, Esq., Hackney; F. Salzmann, Esq., Brighton; W. Bale, Esq., Stockport; H. Stear, Esq., Saffron Walden.

SMALL-POX AND ITS PREVENTION.

At the meeting of the Medical Society of London on February 27th, Dr. Edwards Crisp read a paper on this subject. The subjoined are some of the conclusions arrived at by the author. No deleterious effect is produced on the human constitution by the introduction of cow-pox matter—an inference greatly strengthened by the fact that, since the introduction of vaccination, the population of the United Kingdom has nearly doubled. Government hospitals should be established in the metropolis, in suitable localities, and provided with proper vehicles for the conveyance of patients, and with proper heat-chambers for disinfection. Looking to the important fact that in the ten years 1851 to 1860, 42,071 deaths occurred in England and Wales from small-pox, and that 37,007 of these deaths were in children under fifteen years of age, the recommendation given by the Privy Council and the London College of Physicians should not be followed; but, where there is danger of infection, children of all ages should be revaccinated. There is no sufficient reason why lymph during the time of an epidemic, when it is often difficult to procure it, should not be taken from adult persons, provided they are free from disease, and the vesicle presents a normal appearance. More extended observation is needed before we come to the conclusion that the amount of exemption from small-pox depends upon the number of marks upon the arm from primary vaccination. For the arrest of this and other contagious diseases, a Central Board of Health should be established, to regulate all matters relating to the health of the people; and that, irrespective of medical officers of health, who should exist in all large cities and towns, an inspector for each county should be appointed, whose duty it should be to collect and arrange all important information from the medical officers of health and from the Poor-law medical officers, and report weekly to the central authority respecting the prevailing diseases and other sanitary matters.

THE MEDICAL ASPECTS OF PAUPERISM.

On the 3rd instant, the Metropolitan Counties Branch of the British Medical Association held an ordinary meeting, at which Mr. Fairlie Clarke read a paper on the Medical Aspects of Pauperism. Mr. Heckstall Smith of St. Mary Cray, President, occupied the Chair. There were present, as visitors, Mr. W. H. Smith, M.P., Sir C. Trevelyan,

Mr. Corrance, M.P., Mr. J. H. Kennaway, M.P., Major Walker, M.P., Mr. Shaw Stewart, Rev. Mr. Fremantle, Mr. Bosanquet, Secretary to the Charitable Organisation Society, Mr. Alsager Hill, and others, with a large attendance of members of the Branch. The paper was elaborate and able, and elicited much discussion. We shall report the meeting in our next number.

THE GEOGRAPHY OF DISEASE.

MR. HAVILAND has commenced the publication of the parts of his important book on the *Geography of Disease*. This admirable work is executed with the utmost care and ability, and the fine engraved charts by Messrs. Keith Johnstone are worthy of their reputation. There is no medical or general library of any importance which should not be included in the list of subscribers; and we heartily hope for this costly and valuable literary undertaking ample support and a large measure of success.

MEDICAL SOCIETY OF LONDON.

THE Society held its ninety-eighth annual meeting at Willis's Rooms, on Wednesday, the 8th inst. At the dinner, the President, Mr. John Gay, was in the chair, supported on his right hand by the President of the Royal College of Surgeons, Sir William Fergusson, Bart.; and on the left by the President-elect of the Society, Dr. Andrew Clark. The usual loyal toasts having been drunk, "The Medical Society" was given, in proposing which the President took occasion to express his great pleasure upon its prosperous and flourishing condition, due to the unanimity and good feeling which prevailed among the Fellows; whom he thanked generally for the hearty support which they had rendered him during his presidency. In responding to the toast of "The Examining Bodies," Sir William Fergusson congratulated the Society on arriving at so mature an age in these times of change, and in such a healthy condition. Among the visitors were the Presidents of the Hunterian Society, the Harveian Society, the Medico-Psychological Society, and the Pharmaceutical Society. The following is the result of the ballot for the election of officers and Council: President, Andrew Clark, M.D.; Vice-Presidents, T. C. Weeden Cooke, W. Cholmeley, M.D., F. Mason, E. Symes Thompson, M.D.; Treasurer, John Gay; Librarian, S. Day-Goss, M.D.; Secretaries in Ordinary, J. C. Thorowgood, M.D., H. Royes Bell; Secretary for Foreign Correspondence, A. E. Sansom, M.D.; Orator, F. J. Gant; Council, J. W. Barnes, W. Bloxam, M.D., T. Bond, M.B., F. W. Braine, G. C. Coles, R. Davy, V. de Méric, R. W. Dunn, Tilbury Fox, M.D., William Gill, J. D. Hill, Thomas Hunt, F. J. Lilley, J. Macpherson, M.A., M.D., P. Marshall, B. W. Richardson, M.D., F.R.S., J. T. Sabben, M.D., L. W. Sedgwick, M.D., F. Simms, M.B., E. W. Tait.

RESURGAT.

THE following paragraph, at the close of the Sixth Report for 1870 on the Health and Meteorology of Newcastle and Gateshead, by Dr. G. H. Philipson, announces the much-to-be-regretted demise of that valuable series of reports. It is, indeed, evident that local resources can be but rarely equal to the labour and cost of isolated returns such as these. They must form part of a national system of sickness-returns.

"This report concludes the series for the year 1870, the third year since the plan for the statistical registration of diseases, as recommended by the British Medical Association, was adopted by the Northumberland and Durham Medical Society, for the towns of Newcastle-upon-Tyne and Gateshead, and the seventh since the registration of diseases was first commenced by the Society. In consequence of the expense of the printing, issuing and collecting the returns, and the publication of the reports, the executive of the Society, in the last annual report, deemed it expedient to recommend that the registration of diseases should be discontinued. The recommendation was confirmed by the members. The registration of diseases, therefore, is to be abandoned, the feeling of regret at the procedure only being lessened by the hope that some means will be adopted by the State to carry out the public registration of diseases throughout the kingdom. In appreciation, also, of what has been accomplished, and as a conclusion to

the undertaking, the acknowledgments of your reporter are gratefully tendered to the Society, under whose fostering care the system of registration has been developed and carried on, and to the public medical practitioners of Newcastle and Gateshead, who have so kindly contributed the returns upon which the reports have been based."

SCOTLAND.

THE University of Aberdeen, his Alma Mater, has conferred the degree of LL.D. on Dr. Neil Arnott.

MR. J. A. FROUDE, Lord Rector of St. Andrew's University, will deliver an address to the students on Friday, the 17th instant.

A DRAWING of the new Edinburgh Infirmary buildings, by Mr. Bryce, is being exhibited in the Royal Scottish Academy Exhibition.

GOODSIR MEMORIAL IN THE UNIVERSITY OF EDINBURGH.

WE intimated in October last that steps were about to be taken to ensure the completion of this memorial. We are now pleased to hear that increased and united efforts are being made in Edinburgh and London to effect this in a way worthy of the great anatomist whose name the memorial bears. Hitherto, the promoters have not received the encouragement which was expected; but we venture to hope that the renewed exertions of the Committee will not fail to bring in a fat harvest. It will be remembered that an important meeting of the friends and pupils of the late professor was held in Edinburgh in June 1867, under the presidency of Dr. Dunsmure. It was then resolved that steps should be taken to form a lasting memorial of Professor Goodsir's distinguished career as an original investigator and teacher of anatomy and physiology; and that the most appropriate manner of commemorating his services was to establish in the University of Edinburgh a Fellowship in Anatomy and Physiology, to be called the Goodsir Fellowship. A Committee was formed, and subsequently largely added to, for the purpose of collecting subscriptions and deciding as to the conditions under which the Fellowship should be awarded. Honorary secretaries were appointed in various parts of this country and in the colonies. It was expected that a sufficient fund would have been collected within two years to found the Fellowship; but, up to the present date, only £620 have been subscribed. The hope of establishing an endowment in the University on the scale of a Fellowship has, therefore, been abandoned; and it is now proposed to institute a Scholarship in Anatomy and Physiology. In order to carry out this project worthily, it is necessary to raise the sum already collected to £1,000. The Committee are therefore anxious that former pupils and friends of Professor Goodsir, who have not yet supported this memorial, will now do so; and that they will be induced, by the prospect of speedy completion of this scheme, both to further the interests of biological science and of the University, and to do honour to the memory of one of the most philosophical and learned anatomists of modern times. Subscriptions may be sent to Dr. Joseph Bell, 5, Castle Terrace, Edinburgh, Treasurer; to Dr. Craig MacLagan, Secretary, 5, Coates Crescent, Edinburgh; or to Dr. Dyce Duckworth, Secretary, 11, Grafton Street, Piccadilly, London, W.

MORISONIAN LECTURES ON INSANITY.

THE introductory lecture of the course of Morisonian discourses on insanity was delivered by Dr. Arthur Mitchell, Commissioner in Lunacy for Scotland, on the 3rd instant, in the Hall of the Royal College of Physicians, Edinburgh. The lecturer referred to the slight progress made in psychological medicine, and animadverted strongly on the inflated style often adopted by writers on the subject. He ascribed this to the divorce of insanity from the study of general practice of physic, and advocated the teaching of it as an essential portion of such a course of lectures. He spoke of what had been done in this country for the advancement of knowledge of psychological medicine, and of the admirable system of instruction adopted in Berlin. A plan was proposed by which the student of medicine in Edinburgh might become more inti-

mately acquainted with this phase of disease; viz., that a series of wards should be constructed in the new Infirmary for the reception of cases of insanity and other nervous diseases. Dr. Mitchell stated that he had the authority of the Chairman of the General Board of Lunacy for stating that, if any legal difficulties arose, they would be overcome by changes in the Act. The general tone of the lecture was strongly in accordance with the tenour of our article of February 25th. Exception might be taken to certain critical statements contained in the lecture; but, on the whole, it was so closely allied to our own views, that smaller matters of individual opinion need not interfere with the concord of our conclusions. The audience was large and influential.

IRELAND.

HOW SMALL-POX MAY BE EXTINGUISHED.

THE Deputy-Registrar of No. 3, North City District (Blackhall Street), make the following report.

"Some two or three cases of small-pox have occurred in Temple Street West—all members of the same family, and living in the one room. They are in hospital, and every precaution used to prevent its spreading. I vaccinated any infants that were in this house."

This is a striking illustration of the point urged by Mr. Benson Baker in the interview of the Joint Poor-law Committee with Mr. Simon. Here was the Poor-law medical officer, vaccinator and registrar, following the small-pox into its home, and himself at once taking all the measures for its extinction, which his combination of functions enabled him readily to do. In England, four officials must unite to do what this one officer here rapidly accomplished. It is not by discouraging the employment of Poor-law medical officers that small-pox will be stamped out.

RICHMOND SURGICAL HOSPITAL, DUBLIN.

ON Wednesday, March 1st, Mr. William Stokes commenced his *clinique* at the Richmond Hospital. He delivered a lecture on Amputations of the Lower Extremity, and exhibited to the class the results obtained in nine of his cases. In six of these he had performed amputation of the thigh; in one, amputation at the ankle-joint; in one, a medio-tarsal amputation; and in one, a modification of Lisfranc's partial amputation of the foot. Of the six thigh-amputations, three had been operated on after the "supracondyloid method", one after Teale's rectangular method, one after Wharton's modification of Teale's amputation, and one after the ordinary circular method. The stump obtained in each case was submitted to the class for inspection, and an opportunity was thus afforded of forming an estimate of the merits of each of the procedures that had been adopted. The advantages of the "supracondyloid method" over the other amputations of the thigh were specially dwelt on by the lecturer, and, among them, he mentioned that the stump obtained was more useful for progression; that pressure could be borne on the extremity of the stump; that the patient was not, therefore, obliged to walk as if he had ankylosis of the hip-joint, but had full use of the motions of that joint; that the shock was less than after other amputations of the thigh; that there was less chance of extensive suppuration and purulent absorption, from the posterior surface of the anterior flap being lined with a natural synovial covering; that the normal attachments of the extensors of the thigh were preserved intact; and that there was no possibility of the formation of a conical stump resulting after this operation. The rectangular operation of Teale and Mr. Wharton's modification of the same, which consists in making the anterior flap one-fourth shorter than Mr. Teale recommended, and in having no posterior flap, were next discussed, but, on the whole, preference was given to the former operation. Lastly, the history and particulars of a case of compound comminuted fracture, followed by gangrene, which was treated by amputation after the circular method, was also dwelt on. Amputation at the Ankle-joint was next discussed, and a case was exhibited in which the operation had been performed in consequence

of the foot being crushed by the wheel of a locomotive passing over it. The lecture terminated with some practical remarks on the two remaining amputation cases, in one of which he had performed a medio-tarsal amputation, and in the other a modification of Lisfranc's amputation (suggested originally, Mr. Stokes believed, by Professor R. W. Smith). The operations in the two latter cases had both been performed for an epithelial ulceration.

MEDICAL ACT (1858) AMENDMENT BILL:

THE ASSOCIATION CLAUSES FOR DIRECT REPRESENTATION OF THE PROFESSION IN THE GENERAL MEDICAL COUNCIL.

NOTES OF DEBATE IN THE HOUSE OF LORDS.

Monday, July 4th, 1870.

AT the present moment it is, we think, opportune to recall attention to the clause adopted by the Association after collecting opinions at special general and Branch meetings of the Association, and to the language used by its parliamentary representatives. The following is a *verbatim* account of the debate on Lord Lichfield's motion on the report of amendments in the Medical Act (1858) Amendment Bill.

THE EARL OF LICHFIELD said:—I feel that some apology is due from me for venturing at this late stage of the Bill to bring under your lordships' consideration an amendment of very considerable importance. But I think I shall be justified in doing so, if it should appear that the object of this amendment is to carry out what I may say is the almost unanimous feeling of the medical profession generally [*hear, hear*]; and not only so, but that, in asking for the representation which they seek for in the clause which I have to propose, they are actuated by a desire to promote the interests of the public. With regard to the latter point, it appears to me that we are indebted to the profession for the Bill which was introduced in 1858, which had for its object to secure for the General Medical Council the superintendence of the education of the profession generally, and of the admission of candidates into the profession. We are also indebted to the perseverance of the general body of the profession for the part of the Bill which is now before us, which has for its object to secure a better kind of education as a qualification for admission into the profession in the future. I have heard several objections made to the direct representation of the medical profession, which they now seek. In the first place, it is said that the medical professional body is already represented indirectly—although not directly—in the General Medical Council. Now, with regard to that, I think it is only necessary to refer to the constitution of the several bodies who have seats upon the General Medical Council. The constitution of those bodies shows that the profession at large and the members of the different colleges and universities so represented, have really little or no voice in the election of the governing bodies of those colleges. If that is so—and I think it will only be necessary to refer to the constitution of those colleges and universities in the *Medical Directory* to see that it is so—it is clear that the profession generally has no direct representation on the General Council. I have also heard it objected that, by giving direct representation to the profession, a vast amount of trouble and expense would be introduced into the elections; but that difficulty has been mainly removed by that portion of the Bill of 1858 which provides for the registration of the whole profession. I believe, therefore, that nothing would be more easy than to secure the representation, such as is asked for by the profession in the clause which I have to bring under your lordships' notice. Another objection, and I think a very strong one, is that by adding no fewer than eight members representing the profession to the General Council, we should make that Council a large and unwieldy body. That, however, is a matter of detail, which, it appears to me, might easily be got over by linking together several colleges—as is the case already with some Scotch colleges—for representation upon the General Council. I think Her Majesty's Government will be prepared to admit that they would be most unwilling, under any circumstances, that this Bill should be passed, if it can be clearly shown that it will not be acceptable to the general body of the profession [*hear, hear*]. Now, I think we have ample proof that what is asked for in the amendment of which I have given notice, is really wished for by the profession. We have the petition which has been laid upon the table of your lordships' house since the introduction of the Bill, representing the opinions of four thousand members of the profession. We have, also, the fact that a memorial has been presented to the President of the Council, praying for the same representation; and I understand that at meetings of the profession

held in Oxford, Leeds, Edinburgh, and Dublin, the opinion was almost unanimously in favour of direct representation. But, my lords, even at the General Council itself, it has appeared that there is a feeling that the profession generally is not sufficiently represented; and that, if it were better represented, the General Council would have greater influence, in consequence of the increased interest which would be created in their proceedings. For I see that, at a meeting of the General Council held to consider the clauses of this Bill since its introduction, a resolution was brought forward by one of the nominees of the Government who sit upon that Council, strongly advocating a larger representation of the profession, though the proposal was to secure that representation indirectly. A long discussion took place upon it, and a very strong feeling was shown on the part of the Council that some better representation should be afforded to the profession generally. My lords, I think that under these circumstances I may, at any rate, be excused for having taken up this subject at very short notice indeed; and for asking your lordships to consider it before this Bill leaves your lordships' house. I must confess for myself that I am not prepared to say that the particular mode of giving additional representation to the profession suggested in the amendment of which I have given notice, is exactly the mode in which that representation would best be given. But I do think that it would not be your lordships' wish that the Bill in its present shape, not giving that which is the wish of the profession, should leave your lordships' house without the subject having at least had fair consideration. The clause of which I have given notice, and which I ask your lordships to put into the Bill, is this:—"The General Medical Council shall, after the passing of this Act, always contain four representatives elected by the registered members of the medical profession residing in England and Wales, two representatives elected by the registered members of the profession residing in Scotland, and two representatives elected by the registered members of the profession residing in Ireland." Although I have brought forward this motion at this late hour, I do not wish to pledge myself as to this being the exact number or the exact proportion of the members of the profession who ought to be represented in the General Medical Council. I beg to move that the clause which I have read be inserted in the Bill.

THE EARL DE GREY AND RIPON:—I cannot but hope from the concluding remarks of the noble Earl who has just sat down, and also from the nature of the clause he proposes to insert in the Bill, that it is not his intention to press his amendment upon your lordships for adoption, but that his object is only the natural one of raising the question before your lordships, in order that there may be some discussion on the subject upon the present occasion. I am led to this conclusion, as I have said, not only by what fell from my noble friend, but by the character of the clause which he has proposed; because it is quite clear that the clause can be of no use, inasmuch as it provides no machinery whatever for the election of the persons whom he wishes to place on the Medical Council. My noble friend seems to think that it is an exceedingly easy matter to have persons elected by universal suffrage of the medical profession; but he must, at all events, be aware that he cannot do that by simply enacting that it shall be done, when he provides no machinery whatever for carrying out the scheme. Therefore, the question before your lordships is not so much whether this amendment should be adopted, as whether the change suggested is a desirable one, and whether this is the moment for it. My noble friend has spoken as if it were admitted that the General Medical Council should be representative of the whole medical profession. But the question whether it ought to be a representative body or not, seems to me to depend very much upon the functions which it has to discharge; and I am bound to say that my view of the case is, that this is a body having executive rather than representative functions. I am perfectly aware that many persons in the profession, and many of those who are determined advocates of this change, desire to give to the Council more extended functions, and to impose upon it duties which would very likely be more properly discharged by a body containing largely a representative element; but, my lords, I myself strongly doubt the advisability of such an extension of the functions of the Medical Council. I believe that it would be very unadvisable to endow the Council with some of the functions which it is proposed to give to it; and for my own part, I do not consider that it would be desirable—speaking generally, of course, and with due reserve—to bestow functions upon the Council of a more extended character than it is proposed to give under this Act. So far as my judgment goes, if I were to pronounce an opinion as to the composition of the Medical Council in point of number, I should be inclined to say that it was too numerous rather than not numerous enough; and I believe the admission of any more members to the Council would be a most serious inconvenience and hindrance to the proper transaction of its business. Because its business is not that of a debating society; but is mainly concerned with, and ought to be as

much as possible confined to, duties which I have spoken of as being of an executive description. The members of the Medical Council very fully and fairly represent, I think I may say, the intelligence of the medical profession [*hear, hear*]. The Council not only contains amongst its members several of the most eminent persons in that profession, who have been elected under the constitution of 1858 by the existing corporations, but it contains as well six members appointed by the Crown, who may be taken not merely from the profession in England, but from the general body of the public. And I am by no means sure—speaking my own particular opinion—that it is not the view of many who are acquainted with the subject, not that the Medical Council does not represent the profession sufficiently, but that it would be desirable if we could appoint one or two members who would represent the interests of the public, and not solely those of the profession. It must be borne in mind that the principal duty of the Medical Council under this bill will be to conduct those examinations by which persons are to be admitted to the medical profession. It has, indeed, another duty to perform as regards those who are in the profession already—namely, the duty of striking them off the Register for proved offences. That is a duty of a strictly judicial character, which ought to be exercised in a judicial spirit, and it does not seem to me to form any ground for the introduction into the body which exercises it of a more representative element. If my noble friend had presented to the house a full and complete scheme, which might have been fully examined by your lordships, I should not of course have refused to give that scheme my careful consideration. But, entertaining the views which I have expressed, it does appear to me that on the whole this is not the moment when a change should be made. I cannot honestly say that I am inclined to believe that such a change would be one from which either the public or the profession would in reality derive an advantage. I therefore beg to suggest that my noble friend should not press his clause upon the present occasion; but that the bill, which has a definite object, from which this proposal is entirely separate, should be permitted to pass.

THE MARQUIS OF CLANRICARDE:—I regret that the noble Earl, the President of the Council, has not consented to adopt the clause which has been proposed. From what I have myself heard on many occasions in different parts of the country, I am sure my noble friend on the back benches who proposed this clause was perfectly well grounded in saying that the purport of his amendment expressed the wishes of the great mass of the medical profession throughout the United Kingdom. I believe that, if you do not give them the representation they ask for, the General Medical Council will not have the authority, to say nothing of the popularity, which it deserves, with the profession or the public. But of course I will not argue the matter after what has fallen from my noble friend who has just sat down. The noble Earl has said, however, that the duties of the Council are of an executive character; and particularly that they are to lay down rules for the examination of persons seeking admission into the profession. But, my lords, that is exactly the reason why they ought to represent the profession at large. The only well founded objection taken by the noble lord the President of the Council to the amendment was, that it was insufficient for the purpose for which it was intended. It undoubtedly does not propose machinery by which the election of representatives could be conducted; but surely the necessary machinery for carrying out that object could easily be devised. And, my lords, there is another point in regard to which the bill, if it pass in its present shape, will contain a serious flaw. The change which has been made in regard to the clause which the noble and learned lord opposite offered to put in the original bill as presented to your lordships, is in my opinion fatal to the bill; and if no alteration take place in reference to that subject, I shall feel it my duty to propose the rejection of the bill on the third reading. Unless the bill give the profession at large representation in the Council, it will not be satisfactory to the profession or to the public; and I therefore hope that your lordships will not send it down to the other House of Parliament in its present shape.

EARL GREY:—I am afraid that some of the objections taken by my noble friend the President of the Council to this clause are too well founded. I think it would be impossible, at this late stage of the Bill, to make such alterations as would give effect to the amendment proposed by my noble friend; and I am also bound to say that I think the noble earl did right in objecting to make the Medical Council too numerous. But I cannot help expressing my regret that, in making a valuable reform in the laws relating to the medical profession, the principle adverted to by my noble friend behind me, and embodied in the clause which he has proposed, has not been considered. My own opinion is that, considering what the functions of the Medical Council are, it is desirable that the medical profession at large, as distinct from the Corporations, should at least have an opportunity of making them-

selves heard in the Council. I do not say that my noble friend may not be right in saying that there ought to be in the Council some members unconnected with the medical profession. I am inclined to think that would be an improvement; but I certainly do think that, while we ought not to make the Council too large, the profession generally ought to have some means of making their voice heard in its deliberations.

The MARQUIS OF SALISBURY:—I wish to say one word, lest the debate which has taken place should create an impression of perfect unanimity on both sides of the House which does not exist. My opinion is that, if the whole question were to be discussed by your lordships in a full House, there would not be much enthusiasm in favour of the application of the elective principle to such functions as the General Medical Council have to perform. I think the experiment of electing an executive body by means of a profession widely dispersed over the country, having no particular locality, having no cohesion amongst themselves, and having no means of communication with each other, or of forming public opinion, except through the medium of the newspapers, would be a perfectly new experiment, such as has never been applied to any other body in this country, and which I should look upon with very great apprehension. I am not aware—my noble friend will no doubt correct me if I am wrong—that any of the more eminent members of the medical profession are anxious for this change. My impression is, that they are generally content with the constitution of the General Medical Council as it exists at present; and that they will look upon any such change as that proposed in the amendment before your lordships as tending rather to introduce unnecessary controversy where peace now prevails, and political life into a profession where politics are wholly unnecessary for the proper performance of the duties imposed on the General Medical Council.

EARL DE GREY AND RIPON:—I must ask the indulgence of your lordships for a moment, because one of the statements made by the noble marquis (the Marquis of Clanricarde) is calculated to mislead as to the present effect of this Bill; and I should not be doing justice to the measure if I allowed it to pass without notice. He says that by the eighteenth clause of the Bill, in consequence of the non-adoption of the amendment of the noble and learned lord opposite, the Bill will be rendered useless; and I think he said that it actually increased the number of entrances into the profession and weakened the power of the Government in controlling admissions. The noble marquis is mistaken in that opinion. There will be under this Bill only a triple door of entrance to the *Register*; that is to say, the examinations of the conjoint boards, one in each division of the country. All that the eighteenth clause permits is that existing Corporations of Universities may give their degrees to those whom they please, but the giving of those degrees confers no right to be placed on the *Register*; and if the holders of those degrees call themselves by those titles for the purpose of practising their profession, they will be liable, as set out in the twenty-first clause of the Bill, to heavy penalties. Therefore there are but three entrances by this triple door to the registry under this Bill, instead of there being, as there were previously, nineteen separate entrances. I will only say that I hope my noble friend will not take the course, of which he has seemed to give notice, of opposing the third reading of the Bill; because I think it is scarcely fair that my noble friend should not have raised the question with respect to the alteration in the constitution of the Medical Council, in Committee, when it might have been fairly and fully discussed. Not having so raised it, I trust he will not now attempt to stop the passing of this Bill, which I believe will confer a very great advantage upon the country and upon the profession, at its last stage. If, however, my noble friend thinks proper to take that course, I shall endeavour to persuade your lordships that he is entirely wrong.

The EARL OF LICHFIELD:—I was aware that, in consequence of bringing forward my amendment at this late period, it was impossible that the clause which I have moved should have been inserted; and my object has been gained by obtaining from the noble earl a statement that, had the clause been brought before your lordships at an earlier stage, he would have been fully prepared to take the whole subject into consideration. I must be allowed to make one remark with regard to what fell from the noble marquis (the Marquis of Salisbury), that the leaders of the medical profession were not in favour of the clause which I have put upon the table. I think that what I stated with regard to what had taken place at meetings of the General Council should prove to the noble marquis that there is a strong feeling on the part of the leading members of the profession, and indeed on the part of those members of the profession who are nominees of the Government, and sitting themselves at the General Council, that as at present constituted the Council does not exercise the influence which it ought to do, in consequence of there being so little interest in its proceedings, from the

fact that it does not sufficiently represent the profession at large. I beg to withdraw my amendment.

The amendment was consequently withdrawn, and the report was then received.

A DEPUTATION ON MEDICAL REFORM.

ON Monday last, the Right Honourable W. E. Forster, M.P., accompanied by Mr. Simon, received a deputation of the medical profession, consisting of one of the proprietors of the *Lancet*, with seven members of the staff and a reporter, introduced by Mr. Mundella, M.P. Mr. R. Brudenell Carter made a statement, in which he explained and supported what is known as the *Lancet* Medical Bill. Mr. Forster, after hearing the remarks of the gentlemen present, replied that the observations made as to the Government Bill of last session and the General Medical Council, did not accord with his own opinion and information. It did not appear that the scheme laid before him had received any professional support; and if it reached the House of Commons, of course its promoters must, from its disfranchising tendencies, expect to have to combat with an overwhelming opposition. He could promise no support to it from the Government. They would be able to learn how much chance there was of a measure so little supported becoming law.

ROYAL COLLEGE OF SURGEONS.

THE following is an abstract of the proceedings of the ordinary meeting of the Council of the 2nd instant.

The Council, in pursuance of the notice in the summons, proceeded to the consideration of the draft scheme for an Examining-Board in England, prepared by the Committees of the Royal College of Physicians of London, of the Royal College of Surgeons of England, and of the Society of Apothecaries of London. It was moved and seconded that Section I of such scheme be adopted, viz., "That one Board of Examiners in this division of the United Kingdom be appointed by the Royal College of Physicians, the Royal College of Surgeons, and the Society of Apothecaries, for the examination of candidates who desire to practise medicine, surgery, and midwifery." The following amendment was moved by Mr. SIMON, and seconded by Dr. HUMPHRY: "That the Council of the Royal College of Surgeons disapproves of the present draft scheme for a conjoint Examining-Board for England, and remits it to the Committee for reconsideration, with particular reference to the following two points, viz.: First, that the Council, when it agreed to negotiate for the formation of a Conjoint Board, intended and understood as the basis of the negotiations, that from and after the formation of a Conjoint Board, each of the co-operating medical authorities would, as far as possible, refrain from exercising its previous separate privilege of giving admission to the Medical Register, and that the Council cannot consent to take part with other medical authorities in constituting a Conjoint Board unless such authorities consider themselves bound by that principle: Secondly, that the Council hoped to see the English Universities associated with the English Medical Corporations as contributories of examiners or assessors to the constitution of the Conjoint Board, and cannot willingly concur in any proposal which excludes the Universities from so acting."

The votes of the Council were thereupon taken on the amendment, and on the demand of Messrs. Simon and Hewett, the names of those voting for and against the same were directed to be entered on the minutes, viz.—Majority for the amendment, 7: Mr. Lane, Mr. Curling, Mr. Hewett, Mr. Birkett, Mr. Simon, Dr. Humphry, Mr. Lee. Minority against the amendment, 6: Mr. South, Mr. Hilton, Mr. Busk, Mr. Hancock, Mr. Holden, Mr. Wilson. The amendment was consequently carried.

A letter was read from Mr. Oliver Pemberton, of Birmingham, requesting election as an Honorary Fellow, under the charter relating to members of twenty years' standing. The Secretary was directed to refer Mr. Pemberton to clauses 7, 8, 9, section xxii of the bye-laws; and with regard to future applicants on the same matter, to refer them to the above clauses, instead of bringing the applications before the Council.

Mr. Samuel Solly's resignation of his seat as an Examiner was received, and a special meeting of the Council appointed for Wednesday next, to fill up the vacancy, when the following gentlemen were at once nominated, viz., Messrs. C. G. De Morgan, T. Holmes, and Henry Power.

Mr. William Mac Cormac was admitted a Fellow; and Messrs. Edward Bradford of Harrow, and Henry Weekes of Barnstaple, were

elected Fellows, their diplomas of membership bearing date respectively June 16, 1826, and July 1, 1836.

A letter was read from Dr. C. E. Saunders, of Hayward's Heath, a member of the College, advocating the enactment by the Council of a bye-law enabling graduates in medicine of British Universities to be admitted to a modified examination for the Fellowship. Dr. Saunders was informed that his letter had been laid before the Council.

A vacancy in the Dental Board was reported, caused by the expiration of Mr. Harrison's term of office, and that such vacancy would be filled up in April next. The thanks of the Council were voted to Sir William Fergusson, Bart., for his oration, which he was requested to publish.

VACCINATION AND SMALL-POX.

PENDING the session of the Vaccination Committee of the House of Commons and the continuance of the present epidemic, we are induced to give up to this subject space which can ill be spared from other departments. We select the following from a considerable amount of correspondence and various material offered. One of the most useful objects of the prominence which is thus afforded to the subject will be attained, if the public vaccinators will forward, as briefly as possible, their comments on the present system of public vaccination in its medical and public relations. We have already received a considerable mass of correspondence on this subject; and care was taken by Mr. Hart, as will be seen in the subjoined report of the interview of a deputation of the Association, to bring under the notice of the Government some of the opinions and statements which have been brought under the editor's attention by correspondents in the JOURNAL. If any public vaccinator amongst our members has further representations which he wishes to make, care will be taken, on their being forwarded to us, at once to bring them under the notice of the members of the Parliamentary Committee now sitting, either with or without his name, as he may prefer.

VACCINATION ARRANGEMENTS.

A JOINT deputation of the Poor-law Committee of the British Medical Association and of the Council of the Poor-law Medical Officers' Association had on Saturday last an interview with the Medical Officer of the Privy Council, to make to him certain representations as to the advisability of improving the terms of vaccination-contracts, reconsidering some of the changes in districts, and retaining the services of Poor-law medical officers as vaccinators.

On behalf of the Poor-law Medical Officers' Association, Dr. Rogers—and on behalf of the British Medical Association, Mr. Ernest Hart—entered into full explanatory statements of the views which it was desired to represent. These were laid before our readers at some length in the leader of last week on this subject. Unable to reproduce them at length, we may refer to that statement. The main points urged by Dr. Rogers were the superior efficiency and simplicity of the Irish system, which unites the offices of public vaccinator, Poor-law medical officer, and registrar, in one person. The facts there stated (for which we are indebted to Mr. Benson Baker), indicating the facilities for perfect vaccination in districts of moderate area and limited population, were dwelt upon; and the hardship involved in the dismissal of Poor-law medical officers from vaccination-duties, which formed an almost essential source of their scanty general remuneration, was inferred to be the greater because the more clearly unnecessary.

Mr. ERNEST HART laid stress upon some matters which had been brought to his attention by public vaccinators, the extreme difficulty of carrying out a rigid stational system in scattered rural districts, and the hardships involved. He referred to examples, such as Spalding, and entered into details, which will be found at length in communications published in adjoining columns. He alleged the insufficiency of the payments now made for extra-stational vaccinations, which must always involve very distant visits and sometimes journeys, and the non-publication of the rules, according to which extra gratuities are granted to vaccinators.

Mr. BENSON BAKER spoke of the peculiar opportunities which Poor-law medical officers have of creating an area of complete vaccination around each case of domiciled small-pox.

Mr. PINDER expressed satisfaction with the present enlarged areas, so far as his personal experience extended.

Mr. HARDING, a public vaccinator, pointed out that, inasmuch as failures must be of more frequent occurrence in revaccination than in primary vaccination, but afforded important information, the present payment of a reduced fee for revaccination, and then for success only, involved fallacy and hardship. He also pointed out that a stational vaccinator could not distinguish between the cases applying at his station from within or beyond the district limits, while he was mulcted of his fee for all the latter cases, and no one else received it. This was an unnecessary fine upon vaccinators.

Mr. WICKHAM BARNES and Dr. THOMAS concurred.

Mr. SIMON, who had throughout given the most careful and courteous attention to the observations made, freely interpolating the brief comments necessary to obtain full explanations, replied in detail. He expressed his thanks to the bodies represented there for the careful and interesting experience which had been placed before him. If any hardships had fallen upon individuals in carrying out the enlargement of vaccination, it was a source of anxious regret to himself and the department. He thought it not in the interests of the Poor-law service that the salaries of the medical officers should be fixed at a low and unremunerative scale, so as to require to be supplemented by vaccination fees: such a view should be discouraged. As to the necessity of enlargement of areas and its effect, it was formerly as much the exception as it is now the rule for a public vaccinator to keep up his supply of lymph for arm-to-arm vaccination. Full details were given on this subject in the sixth annual report. No one had more clearly recognised the necessity than independent observers—among them Dr. Letheby—who then very expressly urged the arrangements of which he was now disposed to complain. He observed that skilled and energetic men would carry on vaccination successfully under very disadvantageous circumstances; but universal energy and skill of an exceptional nature were not to be assumed. A considerable mass of vaccination had been dismally bad, and it was to secure efficient and continuous facilities that the enlarged areas had been successfully adopted. Referring to Mr. Hart's plea for publication of the rules on which the extra gratuities were granted, he pointed out that these were for virtues in excess of mere ordinary performance of duty, which was presumably paid by the ordinary fees. As to the objection that, while "quality and quantity of vaccination" were the special things demanded, the vaccinators could only guarantee quantity, Mr. Simon observed that quality and obedience to regulations were what was mainly looked to. He gave examples of the importance of having all the columns in the vaccinators' books filled up. After some further conversation, Mr. Simon stated that he thought the regulations might now properly be printed, and he would have them revised and prepared for publication, probably in his next annual report. He further promised to reconsider the payments for revaccination with a view to a higher payment for successes, at the same time pointing out that the standard of success was far less stringent than that expected in primary vaccinations. In discussing this point, it was stated that fifteen per cent. of failures was a fair average.

Dr. SEATON then, at Mr. Simon's request, quoted figures relating to Birmingham, which had been specially referred to. These figures tended to show that there had been considerable improvement in the vaccination, resulting from the dismissal of four Poor-law officers as vaccinators, and the enlargement of vaccination areas. We have since received further details on this subject, in a communication from Dr. Rogers, and shall deal with them at length next week.

The interview lasted upwards of two hours; and the deputation, in withdrawing, expressed to Mr. Simon their thanks for the courtesy and care with which he discussed with them all the points raised. Mr. Simon intimated that, if it were desired, a representative deputation should have an opportunity of laying the matters discussed before the Parliamentary Committee now sitting, and intimated a wish that written memoranda of them should be left with him.

VACCINATION DIFFICULTIES.

A PUBLIC VACCINATOR writes to us as follows.

In rural districts, and in small towns containing a population of less than ten thousand, vaccination cannot be performed from week to week throughout the year, for lack of subjects; such population not affording a sufficient supply of cases to carry on arm-to-arm vaccination weekly throughout the year. In these districts, attendances for vaccination at the appointed stations have to be arranged for at certain intervals, vaccination being performed periodically for a short series of consecutive weeks—two, three, or four, rarely more. Thus, in small towns, attendance may be given at the stations for the Mondays (or one other day of the week) of the months of (*e.g.*) March, June, September, and December; the object of this arrangement being to bring together as large a number of children as the district will afford on the

appointed days, so that arm-to-arm vaccination may thereby be secured. In rural districts, a similar plan is followed; only, the population being more scanty, attendance at half-yearly periods, and on fewer days, will suffice. In very sparsely populated districts, only two or three days are appointed in each half-year; *e. g.*, the first two or three Tuesdays in the months of April and October. Now, no person, not an inmate of a workhouse, resident within two miles of a station, can legally be vaccinated by a public vaccinator elsewhere than at the station, "unless the vaccinator in the particular case be of opinion (which, if so, he is hereby required to note in his register) that, for some special reason, the person whom he proposes to vaccinate cannot properly be vaccinated at the station." In fact, the fee for a case vaccinated elsewhere, which could properly be vaccinated at the station, may be disallowed, and the public vaccinator cannot legally claim it. Then there arises this difficulty. The public vaccinator is bound, if possible, to perform all his vaccinations from arm to arm; and for this purpose, and with this aim, the children are brought together at the station at the appointed times. But how is it possible that he can vaccinate from arm to arm on the first day of a period? Either he must provide a private patient previously vaccinated from preserved lymph (which the law justly holds to be less desirable than fresh arm-to-arm lymph), or he must do an illegal act (by which he forfeits his claim to a fee) by vaccinating "elsewhere than at the station" one of the children who can only be legally vaccinated by the public vaccinator at the station of the district. It cannot be said that the supposed infant could not "properly be vaccinated at the station"; because, if that were so, it may be replied that it could not properly be brought to the station on the eighth day, as it must be, to supply arm-to-arm lymph to the other children congregated there. Then, again, suppose a number of children to be brought to the station on the first day of the periodical attendance. Is the public vaccinator to vaccinate them all from preserved lymph? and, if not, where is he to obtain his arm-to-arm lymph? As already pointed out, he must either trespass upon the forbearance of a private patient already vaccinated from preserved lymph, and therefore in a manner held to be inferior to arm-to-arm vaccination; or he must do an act which, under the terms of his contract, is illegal, and by which he forfeits his claim to payment for the work done. It may be said that only a few of the infants of a district would be brought to a station on a given day. But there is no security for this; and, if it so please the parents, all may come on the first day, or none on the first day, and all on one of the subsequent days; or some on a first day, none on a second day, and some again on a third day, if there be three days appointed in each period; and thus the arm-to-arm supply, being interrupted, may fail. But the greatest difficulty appears to be about the first day of a periodical attendance; and the public vaccinator has to solve the embarrassing question, How can I provide a supply of arm-to-arm lymph on the first day, without putting myself under an obligation to a private patient, or doing an illegal and unprofitable act? The supply of preserved lymph which he gets from the National Vaccine Establishment is only sufficient to start vaccination at the commencement of each period; and he is instructed to keep up his supply of lymph, by arm-to-arm vaccination, from the supply afforded at the commencement. We say nothing of the physical difficulties which both parents and children may have to encounter owing to the inclemency of the weather, nor of the awkward predicament in which the public vaccinator may be placed if called away to an urgent case of any kind at the time of his departure for his vaccination-station. There are hundreds of districts where it would be impossible to procure a substitute under several hours; and meanwhile the persons may have departed unvaccinated, and may then urge that, having fulfilled the obligation of the law, they cannot be called upon to take the children again to a station. The same argument might legitimately be used when the public vaccinator, though in attendance, is unable to vaccinate the patients for lack of lymph, as may be case on the first day of a periodical attendance.

The system of awards or gratuities, the so-called payment by results, is of doubtful value. Some look upon it as a system of bribery, and repudiate as an insult the offer of additional monetary payment for doing their duty, the *quid pro quo* for which, insufficient as it may be, has been already agreed upon between themselves and their employers. But, as long as the system is in operation, they would like to be informed of the principles upon which awards are made, so that they may, if they please, strive to merit them, and at any rate avoid the errors or omissions which disqualify for them. They hold that, as the money is public, so the general principles upon which the awards are made should be made public also, without, of course, seeking to know the grounds upon which individual awards are made or withheld. It is felt that numbers of public vaccinators whose work is meritorious are deprived of an award on some technical ground, of the existence of which they

may not be aware, and which, had they been cognisant of it, they would have avoided. This is a matter upon which they seek enlightenment. And then, as regards the numbers, the public vaccinators hold it to be utterly out of their power legally to influence the numbers attending at their stations. It is not within their province to order parents, nor can they compel them, to bring their children, nor are they in any way empowered to secure the attendance of people. That is a duty which devolves upon Boards of Guardians, with whom rests the responsibility of enforcing attendance. It is clear, then, that the public vaccinator cannot legally be held responsible for the number of cases vaccinated by him, and therefore it is unjust that awards should be contingent upon his vaccinating an unknown percentage. He should be held responsible for the *quality* of the work done, and awarded accordingly; but for the *quantity*, which is entirely removed from his control, he cannot with justice be held responsible.

Small as the payment for stational vaccination is, the public vaccinators do not make serious complaint against it. They feel, however, that they are not fairly dealt with in regard of vaccinations performed "elsewhere than at a station." Except in those rare instances about which the public vaccinator has to make a special note of explanation in his Register, domiciliary vaccination can only be performed at homes not less than two miles from his residence. He has, then, to go at *least* two miles, and often many more, to vaccinate such persons as reside more than that distance from a station; and for this the sum usually named in contracts (at the instigation of the authorities) is one shilling and sixpence. This is unjust; and its object is only to force poor people to take their children "over two miles" to a station, a practice which the public vaccinator is bound in self-defence to encourage, in order that he may not be mulcted of his stational fee, as well as compelled to pay long visits to the patient's house for an absurdly inadequate payment. He gets three shillings for all cases done at stations more than two miles from his house; but when he has to pay special visits to vaccinate persons "over two miles" from a station, which means more than two miles from his own house, he, in the majority of instances, is paid only one shilling and sixpence for the two journeys and his work, instead of a mileage of not less than one shilling a mile as it should be. It may be said that, according to Section VI, for vaccinations performed elsewhere than at a station, the payment may be according to the terms specified in the contract as approved by the Poor-Law Board. But we fearlessly ask, is not the payment of more than one shilling and sixpence for such vaccinations systematically discouraged?

PREVENTION OF THE SPREAD OF SMALL-POX.

At a time when the fearful small-pox epidemic which has been raging amongst us for so many weeks seems rather to increase than diminish in intensity, any work which will assist the public in preventing its spread must be welcome. We have before us a work* which comes with authority, and has the merit of conciseness: it defines the duties of the local authorities in reference to certain Acts, and in it are reproduced some of the more important memoranda which Mr. Simon has issued in reference to the present epidemic. At pages 12 and 13 are given a series of precautions, which ought to be studied not only by local authorities, but by every head of a family. We recommend Mr. Hutchins's pamphlet to all, for all are deeply interested in carrying out its object.

STATIONAL VACCINATION IN RURAL DISTRICTS.

MR. STILES, Public Vaccinator for the Pinchbeck District of the Spalding Union, has recently published his views on the inexpediency of adopting the stational system in extensive rural neighbourhoods.

The guardians, he says, have increased the fees for vaccination, and the average, being three shillings a case, is an inducement to do the work well. Being fairly paid, each man looks out for his own work, and house-to-house vaccination succeeds admirably, arm-to-arm vaccination being very generally adopted; but, when this is not practicable, the lymph is *always used on the same day on which it is taken*. Although a public prosecutor has been appointed, his services are seldom required in the district, and this for the reason above given, that an adequate payment stimulates the vaccinator to look sharply after defaulters.

No doubt a large amount of infantile disease is propagated by herding children together on vaccination-days in ill-appointed village stations. The stuffy dame's school, the ill-ventilated cottage of some half-starved

* Precautions to be taken by the Local Authorities towards Preventing the Spread of Small-pox. By James B. Hutchins, of the Medical Department of the Privy Council. London: Knight and Co.

rustic, such are the places dignified with the name of "Stations." Very often the surgery of the practitioner is scarcely better adapted for receiving the seething crowd of attendants at the quarterly or half-yearly periodical vaccinations. Another medical man who has a large experience of rural practice says that, unless vaccination be enforced by prosecution, it cannot be carried out in the Buckinghamshire districts. With this proviso the station system could be employed, supposing there were a station fixed in every village. Unless this be done, he does not think people can fairly be compelled to take their children (be the weather what it may) a distance of two or three miles to be vaccinated. Still, in his opinion, house-to-house vaccination would answer very well under the same pressure. In and about the North Bucks districts the people have observed the conduct of the inhabitants of Northampton, and their prejudices against vaccination are greatly strengthened.

ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

THE next meeting of the members of the above District will be held at the Pavilion Hotel, Folkestone, on Thursday, March 16th, 1871, at 3 o'clock: Dr. BOWLES, of Folkestone, in the Chair.

Dinner will be provided at 5 o'clock precisely. Charge, 5s., exclusive of wine. All members of the South Eastern Branch are entitled to attend, and to introduce friends.

Papers have been promised by Dr. Bowles, Mr. Bateman, Dr. Wilkin, and Mr. Osborn.

Gentlemen who intend to be present at the dinner, are particularly requested to inform me on or before Tuesday, the 14th instant.

CHARLES PARSONS, M.D., *Honorary Secretary.*

2, St. James's Street, Dover, February 28th, 1871.

WEST SOMERSET BRANCH.

THE spring meeting of the above Branch will be held at the Railway Hotel, Taunton, on Thursday, March 30th, at 5 P.M.; J. CORNWALL, Esq., President.

Gentlemen intending to be present at the dinner (at 5 P.M.), or to read papers afterwards, are requested to give notice to the Honorary Secretary.

W. M. KELLY, M.D., *Honorary Secretary.*
Taunton, March 4th, 1871.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: GENERAL MEETING.

THE fifth general meeting of this Branch was held at the Midland Institute, Birmingham, on February 9th, 1871, at 3 P.M. Present: THOMAS UNDERHILL, Esq., President of the Branch, in the Chair, and sixty members and visitors. Among the latter were several students of Queen's College.

New Members.—The following gentlemen were elected members of the Branch:—Dr. Carter (Lichfield); Dr. Agar (Henley-in-Arden); Mr. Hollingshead (Selley Oak); Dr. Snow and Dr. Bottle (South Staffordshire Hospital); Mr. J. Hunt and Mr. Cochrane (General Dispensary); Mr. John Green (Wolverhampton); Surgeon-Major Manifold; Mr. Thomas Markby (Martley); Mr. Peacock (Chilvers Coton).

Communications.—1. Mr. JOLLY exhibited a boy fourteen years of age, whose Left Hand he had occasion to remove at the wrist-joint on account of a machinery accident. Mr. Jolly advocated this operation in preference to amputation of the forearm, where a sufficiency of soft parts could be preserved from either aspect of the hand to cover the end of the radius and ulna. The advantages of this amputation were enumerated as follows:—1, it was less hazardous than amputation higher up; 2, the attachment of all the pronators and supinators of the forearm was preserved; 3, the muscular spaces were unopened, and the tendons were left in their normal relations; 4, the forearm was left sufficiently long to admit of any kind of apparatus being applied as a substitute for a hand; 5, the articular surface of the radius and ulna being undisturbed, there was no liability to the formation of sequestra.

2. Mr. FURNEAUX JORDAN showed specimens of advanced Caries removed in the operations of Excision of the hip, shoulder, and elbow, and by Syme's amputation at the ankle. In the shoulder case, early phthisis was present. In the hip, much of the acetabulum required removal. In the removed foot, there was complete osseous union of the astragalus and calcaneum. All the cases had done well.

3. Mr. HOUGHTON related the following case. Mr. H., aged 45, a stout man, six feet high, and seventeen or eighteen stone in weight, became the subject of symptoms of Stone in 1865. Mr. Houghton sounded him and found a small stone, which Mr. Pemberton, by his desire, attempted to crush. The spasms produced by the lithotrite were so severe that the attempt was abandoned, and a few days afterwards Mr. Houghton performed the lateral operation on Key's staff, and removed a small stone. The man quickly recovered. In July, 1870, symptoms of stone having existed for some time, Mr. Houghton again detected a calculus. At this time, however, he was suffering slightly from symptoms of catarrh of the bladder, passing a little ropy mucus and phosphates. Mr. Pemberton again attempted lithotritry, with the same result as previously. A second attempt under chloroform resulted in a failure. A very sharp attack of catarrh followed the operation, and he passed large quantities of ropy mucus and phosphates, suffering much in his health. The symptoms were much relieved by general treatment; but on the 14th of August he had an attack of retention of urine, causing terrible suffering. On the 15th, at his urgent request, assisted by Mr. Furneaux Jordan, Mr. Houghton repeated the lateral operation. A small stone was again removed, and a large quantity of phosphates, partly by the finger, the scoop, and by injection of water. He made a good recovery. The urine gradually acquired its normal condition; the phosphates and ropy mucus entirely disappeared, and he is now quite well. He derived marked benefit from the triticum repens—the symptoms clearly appearing and disappearing as the medicine was taken or neglected.

4. Dr. FARQUHARSON showed specimens of the Oiled Silk Protective and Antiseptic Gauze, described by Professor Lister in a recent number of the JOURNAL, which he had seen used at Edinburgh with excellent results. He specially drew attention to the wonderful purity and sweetness of the clinical and surgical wards there, and to the fact that pyæmia was now quite unknown in connection with Mr. Lister's practice.

5. Mr. BARTLEET showed a new preparation of Oakum introduced by Messrs. Southall and Dymond, of Birmingham, and registered by them as "Tenax." It is carded by machinery, and seems to possess the advantages of picked oakum in an elegant form. Mr. Bartleet in a few remarks showed the superiority of picked oakum to lint in many surgical cases.

6. Dr. NORRIS read a paper on the Relation of the Pus-corpuscles to the White Corpuscles of the Blood, with special reference to the researches of Waller, Cohnheim, Bastian, and others.

7. Dr. HICKENBOTHAM showed the Kidneys and Bladder removed from a Child, which died when thirteen days old. When born, the child was apparently well. The urine was natural, and passed freely. From the third and fourth day, however, he began to decline; but, as he was dry-nursed, this caused no surprise. On the sixth day a small piece of hard, black matter was passed with the urine; it resembled coal, and, until death, he continued at intervals to void such fragments. At first there was no blood, but later a slight admixture of blood was observed. Convulsions occurred a few hours before death. The necropsy showed the bladder to be half full of a black, putty-like mass; and the pelvis of each kidney was filled with an accurate mould of the same substance. One of the renal veins contained a clot. When examined under the microscope, the mass was found to consist of black granules with altered blood-corpuscles. The attention of the meeting was called to the hardness and insolubility of the fragments passed during life.

NORTH WALES BRANCH: INTERMEDIATE GENERAL MEETING.

THE above meeting was held on February 14th, at the Belvoir Hotel, Rhyl. There were eleven members present; several letters having been received from others who were unable through professional engagements to attend the meeting. In consequence of the lamented death of the President, T. F. EDWARDS, Esq., Dr. TURNOUR, of Denbigh, was unanimously voted to the Chair.

Vote of Sympathy to the Family of the late President.—Dr. TURNOUR moved, and Dr. ROBERTS (St. Asaph) seconded the following resolution, which was agreed to unanimously:—"That this meeting desire to express their sincere sympathy with the sorrowing and bereaved relatives of the late Mr. Thomas Francis Edwards, of Denbigh, President of this Branch, at the sad and unexpected loss they have sustained by his lamented death."

New Members.—The following gentlemen were duly elected members of the British Medical Association and of this Branch, viz.:—Evan Williams, Esq., Llangefni; William Williams, Esq., Bangor; and Thomas Llewellyn Browne, Esq., Mold.

Annual Meeting.—It was agreed to hold the next annual meeting on the first Tuesday in July, at the Castle Hotel, Ruthin.

Papers and Cases.—The following were read.—1. On Bromide of Potassium in Epilepsy, by G. Turner Jones, Esq., Denbigh. He related cases of Epilepsy in Asylum Patients, in which scruple doses and upwards were given in conjunction with hydrate of chloral.—Dr. TURNOUR and Dr. ROBERTS at some length spoke to the great efficacy of the bromide in epilepsy.—Mr. JAMES WILLIAMS (Holywell) gave it in a case of masturbation.—Mr. TURNER JONES and Dr. TURNOUR and others present made favourable mention of chloroform in many cases of epilepsy and cataleptic seizures.

2. Case of Hysterical Anorexia, by James Williams, Esq., Holywell.

3. On the Internal Use of Carbolic Acid (Calvert's), by J. H. Wolstenholme, Esq., Holywell.

4. Case of Fibrous Bronchitis, by Samuel Griffith, M.D., Portmadoc.

Dinner.—The members, after the meeting concluded, dined together and spent a pleasant evening.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN.

MEDICAL ORDERS FOR FOOD IN SICKNESS.

SIR,—I have no wish to prolong this discussion; but must beg the opportunity of assuring Mr. Brookes that I did not intend to "insinuate" against him anything of a disparaging nature. My remark, "I fear there must be some personal animus on one or both sides", was not meant to refer to the Poor-law Board, but to him and the Madeley Guardians; and his allusion, in his reply this week, to the cordiality existing between him and them, "individually and collectively", goes far to convince me that my "fear" is well grounded, for in spite of their "individual" professions of friendship towards him, they evidently, in their "collective" and irresponsible capacity as a Board, entertain the "animus"—and exercise it, too—to strain their discretionary power, and to place an obstacle in Mr. Brookes's path. From what other source can opposition arise? "Nusquam tuta fides."

There is no "law", I take it, as to the orders or notes of medical officers—it is a bye-law, which admits of great expansion, and is usually left to the discretion and humanity of the guardians, about which the Poor-law Board have no desire to interfere, and, I suspect, would prefer not to be appealed to. Such orders are recognised as a necessary feature in the administration of the Poor-law; and it would redound much more to the dignity of the Madeley Guardians (and add to the necessary comforts of their sick poor) if they would follow the example of the Boards in the West, who invariably, promptly, and humanely treat such notes with the consideration they deserve—consequently we are never called upon to "defer to the judgment of relieving officers and overseers", and shall most vigorously rebel if ever required to do so.

I am, etc., EDWIN BUSH.

Frome, March 6th, 1871.

In answer to Mr. Holmes of Slough, we have to state that, to meet his wish, Dr. Rogers will, at the next meeting of the Poor-law Medical Officers' Association, give a sketch of the Irish Poor-law medical relief system, and of its advantages and disadvantages, which we do not wish to anticipate.

VACANCIES.

BIRMINGHAM, Parish of—Five District Medical Officers.

BOOTLE UNION, Cumberland—Medical Officers and Public Vaccinators for the Workhouse.

DURSLEY UNION, Gloucestershire—Medical Officer and Public Vaccinator for District No. 3.

FALMOUTH UNION, Cornwall—Medical Officer for the Constantine District.

KINGARTH, Buteshire—Parochial Medical Officer.

KNIGHTON UNION, Radnorshire—Medical Officer and Public Vaccinator for the Bampton Brian District.

LONGTOWN UNION, Cumberland—Medical Officer and Public Vaccinator for the High District.

NORTH BUTE, Buteshire—Parochial Medical Officer.

ST. IVES (Hunts) UNION—Medical Officer and Public Vaccinator for the District of Somersham.

THORNBURY UNION, Gloucestershire—Medical Officer and Public Vaccinator for the Almondsbury District.

UPTON-ON-SEVERN UNION—Medical Officer for District No. 3.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

THE fee for revaccination in Ireland appears, from an official letter of the Poor-law Commissioners, which is before us, to be the same as that for primary vaccination. This is a matter of some interest to vaccinators in connexion with the representation made on Saturday to Mr. Simon, by the Joint Committee of the British Medical and Poor-law Associations.

THE DANGEROUS LUNATIC ACT, IRELAND.

GRATUITOUS labour has been proved in all instances to be the most expensive in the end; and mercantile establishments, whose sole objects

are directed towards pecuniary results, have long since ceased to adopt such a principle. We last week promised to direct attention to the working of the Dangerous Lunatic Act (Ireland), and we shall proceed to do so now. The XXX and XXXI Victoria, cap. 118, states that if, under certain circumstances, a person be discovered to have committed an act for which he or she "would be liable to be indicted, the justices shall call to their assistance the medical officer, or, if there be more than one, the nearest available officer of the dispensary district in which they shall be at the time; and, if there shall not be any such medical officer available, then the nearest available officer of any neighbouring dispensary district, who shall examine such person 'without fee or reward'". This imposition of gratuitous psychological duties on the Poor-law medical officers of Ireland may have been deemed at the time to be a brilliant politico-economical idea, but we must say that it has not proved a success. No doubt every proper precaution is used in the committal of dangerous lunatics; but, on looking over the last Report of Lunacy in Ireland, we cannot vouch for the economical result of this Act. In it we find mentioned "the indiscriminate committal of reputed dangerous lunatics to distant asylums, and the compulsory admission thereby of all sorts of unfit persons". Numerous cases in point are cited. In this way there is interference with the regular course of admission by the authority of boards, with the advice and assistance of their medical officers. Not only has this indiscriminate committal of alleged dangerous lunatics gone on, but the bridewells are now made receptacles for insane persons when brought before justices. The extent to which this system has gone will be best understood from the fact that, out of 2307 persons admitted directly into asylums in 1869, 1180 persons were committed as alleged dangerous lunatics. Enough, we think, has been said to show that some change is necessary, particularly as there is ample accommodation in all the asylums, and as the local governors and medical officers are fully alive to the great importance of the early treatment of insanity, and have, moreover, full powers to accord instant admission to urgent cases. It would on those grounds alone appear inexpedient to continue to 'ustices that authority which has been exercised in the manner described. So far, says the Report, with regard to the economy of the gratuitous practice of psychology. We are informed that the expenditure for the year 1869 was £140,034 against £132,528 the previous year, being an increase of £7506. We shall now proceed to discuss the hardship that it entails on the Poor-law medical officers of Ireland. In the year 1869 they were obliged to attend over a thousand times at the police-courts and elsewhere to certify for dangerous lunatics. One gentleman had over two hundred cases, and has had to certify for as many as three lunatics in one day, and that not very unfrequently. In the country districts, where two justices are required to sign the committal, it must be a very great hardship for the dispensary medical officer to be obliged to scour the country, in company with a policeman and a dangerous lunatic, "without fee or reward", in search of two justices of peace who may live miles away from each other. Yet this frequently occurs, to the necessary neglect not only of private practice, but also of the sick poor. Irrespectively of the loss of time and the personal danger incurred in the performance of this duty, there is also a very great pecuniary risk involved, to which particular attention ought to be directed. It has occurred already that a man has been brought up as a dangerous lunatic, by a person in whose house he was lodging at the time, for the eccentricity of firing off a revolver in his bedroom. The medical officer refused to certify to his lunacy, believing the eccentricity to be due to another cause. An action was instituted in this case against the person who had given him into custody as a dangerous lunatic, and £70 damages was the verdict. In another instance a medical man had to pay £80 damages for some slight informality. This, therefore, appears to be a very serious question, and we commend it to the notice of the Poor-law Medical Officers' Association. We never find such duties imposed upon lawyers, for instance, "without fee or reward". In conclusion, we have but to add that the expense of the gratuitous imposition of psychology in Ireland is steadily increasing. We hope that our medical members of Parliament will take the matter into serious consideration.

VACANCIES.

BALTINGLASS UNION, co. Wicklow—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Rathvilly Dispensary District.

CAHERCIVEN UNION, co. Kerry—Medical Officer for the Emlagh Dispensary District.

GALWAY UNION—Medical Officer and Public Vaccinator for the Spiddal Dispensary District.

TULLAMORE UNION, King's County—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Kilbeggan Dispensary District.

OBITUARY.

JOHN ADDINGTON SYMONDS, M.D., F.R.C.P., F.R.S.E.,
VICE-PRESIDENT OF THE BRITISH MEDICAL ASSOCIATION.

IN the person of this eminent physician, accomplished gentleman and scholar, and excellent man, our profession has just lost a distinguished ornament. For about a year and a half, he had quite ceased to practise, owing to the gradual advance of an obscure and complicated malady. Repeated attacks of diarrhoea exhausted his frame; and, on February 25th, came the end which he had for some time been awaiting with calm resignation. He died surrounded by his family, and retaining his consciousness almost to the last.

John Addington Symonds was born on April 10th, 1807. He was the son of a medical practitioner residing in Oxford, and he commenced his professional education in that city. At the age of 18 he entered the University of Edinburgh, and graduated there in 1828, after the usual course of study. For the next two years he took some share in his father's practice; but in 1831 he removed to Bristol, and in 1832 became one of the Physicians to the General Hospital, which was opened in that year. He retained this post until 1848. In 1832, also, he was appointed Secretary to the Cholera Commission in Bristol.

From the very commencement of his practice in Bristol, he took the position of a Consulting-Physician. In 1834 he was appointed Lecturer on Forensic Medicine at the Bristol Medical School, and in 1836 he became Lecturer on the Principles and Practice of Medicine.

Dr. Symonds was a member of the British Medical Association almost, if not altogether, from its commencement. His name appears in the list of members published in 1833 in the first volume of the *Transactions of the Provincial Medical and Surgical Association*. In 1839, at the meeting of the Association, he delivered the Retrospective Address in Medicine, reviewing the progress of anatomy and physiology, pathological anatomy, diagnosis, etc. In 1863, he filled the post of President of the Association with a brilliancy of talent and a splendid hospitality which must be fresh in the recollection of many of our readers. The Address on the Public Estimate of Medicine, which he delivered on that occasion, was perhaps one of the best of his works. At the annual meeting in Leamington, in 1865, he introduced a discussion on Medical Evidence in Relation to State Medicine, in an address showing great practical comprehension of the subject. He was President of the Bath and Bristol Branch in 1851, and delivered an excellent address on Orthodox Medicine on the occasion of his taking the chair. Among his other contributions to that Branch—of which he was for many years a member of Council—must be specially mentioned a paper on Criminal Responsibility in Relation to Insanity, read in 1864. The communications referred to as having been read before the Association and Branch have appeared in the pages of this JOURNAL; to which also he contributed in 1868 some of the results of his experience, under the title of Therapeutic Memoranda.

In 1853 he was elected Member, and in 1857 Fellow of the Royal College of Physicians; and in 1858 he delivered the Gulstonian Lectures on Headache. In 1869 he presided over the Public Health Section of the Social Science Congress in Bristol, and not only delivered an inaugural address, but also contributed an able paper on the Treatment of Drunkards.

Dr. Symonds was a man of very varied culture. His publications on professional subjects were extremely numerous, but not voluminous. Quality, not quantity, was his aim; his matter was always weighty and carefully reasoned out; his style was elegant and polished. Amongst the most important of his writings, may be mentioned contributions to the *Transactions of the Provincial Medical and Surgical Association* between the years 1833 and 1838 on Exhumation after Poisoning; on the Cholera in Bristol in 1832; a Retrospective Address on Medicine; on Tetanus (in the *Cyclopædia of Practical Medicine*); on Age and on Death (in the *Cyclopædia of Anatomy and Physiology*); many articles in the *British and Foreign Medical Review*, in which he led the opposition to the views of Sir John Forbes and Dr. Andrew Combe in two letters on "The Excessive Trust in Nature." Dr. Symonds contributed most of the articles on Disease of the Digestive Organs to Dr. Tweedie's *Library of Medicine*, besides writing the Pathological Introduction. Later he published a paper on Death by Chloroform, and certain strictures on the stimulant plan recommended by the late Dr. Todd. His publications in this JOURNAL have already been referred to.

But, great as was his reputation as a Physician, he was no less remarkable for his love for science, literature, and art. He held that the mind of the physician should be illuminated by the side lights derivable from other departments of science and of literature. For many years he took an active share in the lectures connected with the Bristol Philosophical Institution, and several published lectures, e.g., "Ten Years—a retrospect of science and literature," "Habit, physiologically considered," two lectures on "Sleep and Dreams," and his last on "Waste," afford proof of his ardent interest in general culture. In 1857 he published an essay on the Principles of Beauty, in which he adopted Mr. Hay's doctrine of a correspondence between the harmonic ratios of sound and the proportions of certain geometrical elements in beautiful figures.

In looking back upon his career, it is impossible not to record certain eminent characteristics. He had a great love of and honour for his profession. He was always most anxious that the science of medicine should take its proper place in the minds both of scientific men and of the general public. As a practitioner, he was cautious in diagnosis, but often vigorous in treatment. As a consulting physician, he had no rival in the West of England, combining qualities which commended him in the highest degree to the profession and to the public. While availing himself to the fullest extent of the observations of the medical attendant, he was careful himself to test every point that was capable of verification; and while he suffered no consideration to interfere with the cause most likely to benefit the patient, he always yielded due honour to his professional brethren, and due weight to their opinions. His liberality to his juniors in the profession was carried to a very unusual degree, and his hand was ever held out to help others to rise. His acumen in diagnosis, especially in diseases of the heart and lungs, was very remarkable; and his memory of former cases was so good that in the most difficult circumstances he could always afford practical suggestions of the utmost value. His brilliant powers of reasoning, his untiring energy, his regular habits, his marvellous sympathy with suffering, and his general trustworthiness, were all elements in attaining a success which, it is not too much to say, has been unrivalled by any provincial physician in this generation.

On the whole, there was a rare completeness and rotundity about Dr. Symonds's character and career. Though he died at the comparatively early age of sixty-three, he had long before attained all the honours that are open to a physician in a great provincial city. In all matters not purely political or municipal, he was looked up to and referred to by his fellow citizens as their natural leader and adviser, and thus held a position among them too seldom occupied by men of his profession, and which he owed to a singular combination of endowments—high literary and scientific as well as professional attainments, cultivation and elegance in speaking and in writing, intuitive tact and knowledge of men, ready hospitality and unostentatious generosity. His power of self-control, his thorough mastery over his whole moral and intellectual nature, was one of his most remarkable characteristics; and his warm and generous feelings, directed and controlled by a sound judgment, diffused a steady glow of beneficence around him.

The early death of his wife was a deeply felt misfortune. Otherwise, he was most happy in his family, of whom a son and three daughters survive him; and happy in his fortunes, for during very many years, until disabled by illness, he enjoyed an unusually large professional income, with all the intellectual and material advantages which it could involve and supply.

His health had been gradually failing for several years. In the spring of 1869 he gave up practice for some months, and went to Italy. Owing to fatigue abroad and repeated attacks of diarrhoea, he returned without much benefit. He worked on, however, until after the meeting of the Social Science in October of 1869; but then his health gave way more entirely. In July, 1870, he had a very severe illness, in which death seemed imminent for several weeks, and he was then seen by Sir William Jenner. He slowly rallied, and was able to be out a little in the later autumn. His chief complaint was extreme anæmia, with some disease of the aortic valves, and a want of co-ordination of certain groups of muscles. He remained in possession of full intellectual power until the last, but sank on February 25 from exhaustion consequent on the frequent recurrence of diarrhoea.

His funeral took place on March 2nd, and by his own express desire was a strictly private one; but most of the leading physicians and surgeons, and many of the principal citizens of Bristol, attended at the Arno's Vale Cemetery, in order to mark their sense of his worth, and to shew due honour to his memory.

He was in the highest sense a scholar, a philosopher, and a Christian gentleman, and endowed with qualities which commanded the esteem and won the affection of a very large number of friends of all classes and of all opinions.

C. F. M'LACHLAN, M.D., ROTHESAY.

WE regret to announce the death of this gentleman, at the age of 38. He was the Parochial Medical Officer for North Bute and Kingarth. After acting as house-surgeon in the Royal Infirmary, Glasgow, for two years, he visited the hospitals of the Crimea towards the close of the war. He afterwards made several voyages to America and the Mediterranean, in which he acquired valuable information in regard to his profession. He was Captain Commandant of the 1st Bute Artillery Corps. He was at one time a member of the Rothesay Town Council, and acted as junior Bailie.

DAVID H. PATERSON, F.R.C.S.Ed.

MR. DAVID H. PATERSON, whose death occurred on February 14th, 1871, was no ordinary man, and deserves more than a passing notice. Born at Edinburgh May 10, 1832, and educated at the High-school and University, he received his surgeon's diploma in March, 1855. After acting as house-surgeon of the Leith Hospital for twelve months, he sailed in 1856 for Madras, to commence a Medical Missionary Institution, under the joint auspices of the Edinburgh Medical Missionary Society and the Committee on Foreign Missions of the Free Church of Scotland.

Of his work in India, we can say that, after many preliminary obstacles and difficulties, which taxed his faith, patience, and firmness of purpose to the uttermost, it proved a great success. A few months before leaving the country, which he was compelled to do by repeated attacks of severe illness, he sent forth from his Training Institution a band of twelve native Christian youths, thoroughly qualified to practise the healing art among their countrymen, while making known to them the Gospel of Christ. After a sojourn of six months in Scotland—three of which were spent in the congenial office of Superintendent of the Edinburgh Medical Missionary Training Institution—Mr. Paterson was cut off by one of those severe illnesses which had so prostrated him in Madras. His loss is severely felt by many in both countries; and the cause to which he devoted his energies could ill spare him. He was a man of rare moral qualities; modest and humble, free from self-consciousness, full of faith in God and the ultimate success of his mission, but silent as to his own doings, cautious in forming plans, but undauntedly persevering, when once adopted, in carrying them into execution. All who came into contact with Mr. Paterson felt at once that he was a genuine man, and prolonged familiarity with him always ripened the conviction.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, March 2nd, 1871.

Edmundson, Thomas Robert, Guy's Hospital
Evans, Edward Beynon, Swansea

The following gentlemen also on the same day passed their first professional examination.

Dove, Harry, St. Bartholomew's Hospital
Stone, Charles Henry Augustus, Guy's Hospital

ARMY MEDICAL SERVICE.—List of gentlemen who competed successfully for appointments as Assistant-Surgeons in Her Majesty's Army Medical Service, at the competitive examination held at the London University, on February 20th, 1871.

Order of merit.	Names.	No. of marks.	Order of merit.	Names.	No. of marks.
1.	Crombie, A.	2670	20.	Charlton, W. J.	1755
2.	Stuart, G. B.	2420	21.	Martin, J. W.	1750
3.	McCracken, J. A.	2130	22.	Gabbett, P. R. D.	1740
4.	Irving, I. A.	2120	23.	Joynt, E. H.	1735
5.	Beamish, J. M.	2105	24.	Saunders, W. E.	1725
6.	Clery, J. A.	2105	25.	Palmer, C. De M.	1710
7.	Coats, J.	2035	26.	Anthony, A. H.	1670
8.	Cruikshank, R. B.	1960	27.	Finlay, W.	1670
9.	Molloy, O.	1930	28.	White, W. L.	1655
10.	Fawcett, W. J.	1910	29.	Exham, R.	1615
11.	Williamson, J. G.	1895	30.	O'Connell, M. D.	1605
12.	Leckie, D.	1855	31.	Sullivan, W. P.	1600
13.	Joynt, H. W.	1850	32.	Harman, R.	1590
14.	Moylan, W. J.	1840	33.	Buxton, J.	1570
15.	Leake, G. D. N.	1835	34.	Wilson, J. B.	1570
16.	Tobin, W.	1825	35.	Ward, E. C. R.	1485
17.	McNamara, J.	1815	36.	Dickson, J. R.	1465
18.	Bradford, H.	1795			
19.	Robinson, R. H.	1795			

NAVAL MEDICAL SERVICE.—Names of the successful candidates who passed the recent competitive examination for admission into the Medical Service of the Royal Navy, held at the University of London, between the 20th and 27th February, in the order of merit in which they passed, and the number of marks obtained.

	No. of Marks.
Harvey, Thomas, Westminster Hospital	1770
Algeo, William, Royal College of Surgeons, Ireland	1720
Kearney, Michael, M.D., Queen's College, Cork	1515
Lyon, John, M.B., Glasgow University	1365
Brown, William, Carmichael School of Medicine, Dublin	1340
Tyndall, John, Royal College of Surgeons, Ireland	1340
Reed, Matthew, M.D., Queen's College, Galway	1315
Joyce, Alexander Richard, Royal College of Surgeons, Ireland	1255
Rathbone, Charles Atkinson, M.D., Queen's College, Galway	1245
Power, Thomas, Queen's College, Cork	1235

MEDICAL VACANCIES.

THE following vacancies are announced:—

BIRMINGHAM GENERAL DISPENSARY—Resident Physician & Secretary.
CHELSEA, BROMPTON, and BELGRAVE DISPENSARY—Physician.
CHORLTON, etc., DISPENSARY, Manchester—Honorary Dentist.
DUNDEE ROYAL INFIRMARY—Joint House-Surgeon.
FEVER HOSPITAL and HOUSE of RECOVERY, Cork Street, Dublin—Apothecary and Accoucheur.
HARTLEPOOL HOSPITAL—House-Surgeon and Secretary.
HOSPITAL for WOMEN, Soho Square—Assistant-Physician.
KENT COUNTY OPHTHALMIC HOSPITAL, Maidstone—Consulting Surgeon.
METROPOLITAN FREE HOSPITAL—House-Surgeon.
NEWPORT (Monmouthshire) INFIRMARY—Resident Medical Officer.
NOTTINGHAM DISPENSARY—Assistant Resident Surgeon.
ROYAL SURREY COUNTY HOSPITAL, Guildford—Assistant Honorary Medical Officer.
ST. BARTHOLOMEW'S HOSPITAL—Casualty Physician.
SWANSEA HOSPITAL—Resident Medical Officer.
VICTORIA HOSPITAL for SICK CHILDREN, Chelsea—Assistant-Physician.
WESTMINSTER HOSPITAL—Surgeon; Assistant-Surgeon; Resident Obstetric Assistant.
WEST NORFOLK and LYNN HOSPITAL—Physician; Surgeon.

[For Poor-law Vacancies see Poor-law Department.]

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BEADLES, Ferdinand, Esq., appointed Medical Officer of the fourth (Broadway) district of the Evesham Union.
*COLES, George C., Esq., appointed Assistant-Surgeon to the South London Ophthalmic Hospital.
GELSTON, Richard Phillips, L.K.Q.C.P., elected Assistant Resident Medical Superintendent to the Clonmel District Lunatic Asylum.
*LITTLE, Frederick, Esq., appointed Medical Officer of the Fourth District of the Aylsham Union, *vice* J. W. Saunders, Esq., resigned.
*SMITH, C. Swaby, L.R.C.P.Ed., appointed Medical Officer to the Waterloo-cum-Seaforth Local Board of Health.
*SMITH, Heywood, M.B., appointed Physician to the Hospital for Women, Soho Square, *vice* *H. J. Sanderson, M.D., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

LITTLE.—On February 26th, at Aylsham, the wife of *Frederick Little, Esq., Surgeon, of a daughter.

MARRIAGE.

*PEART, Robert S., M.D., North Shields, to Margaret Ellen, only daughter of the late Andrew MACKINTOSH, Esq., Trinidad and London, at St. Marylebone Church, on February 21st.

DEATHS.

EVANS, Thomas Jewes, Esq., Surgeon, at Bromleg, Briton Ferry, aged 35, on February 18th.
HEYWARD, G. P., Esq., Surgeon, of Egham, on February 22nd.
RICHARDS, Frederick W., M.B., of Winchester, aged 29, on February 23rd.
SEGAN, John, M.D., in Dublin, aged 75, on February 20th.
*SYMONDS, John Addington, M.D., Vice-President of the British Medical Association, at Clifton, Bristol, aged 63, on February 25th.
VERDON, J. J., Esq., Surgeon, in Dublin, aged 35, on February 26th.
*WATERFIELD, Thomas, M.D., at South Street, Thurlow Square, on March 6th.

THE WEST NORFOLK HOSPITAL.—The following is a copy of a resolution sent to Mr. Kendall by the Governors of the West Norfolk and Lynn Hospital at the Annual Meeting, February 14th, 1871, on his resigning the office of Senior Surgeon to the Hospital, after having held it for fifteen years:—"That this meeting of Governors begs to convey to Mr. Kendall their cordial regret at the great loss the Hospital has sustained by his resignation as Surgeon, and they trust he may long continue in the enjoyment of better health; and, as a mark of their estimate of his invaluable services to the charity, they request him to accept the appointment of Consulting Surgeon, and to be a Governor for life."

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.

SATURDAY St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. The President, Dr. Andrew Clark, will detail some cases of "Perityphlitis"; Dr. Richardson, F.R.S., "Some further additions to Therapeutics, with special reference to Organic Bromides".

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Jonathan Hutchinson, "Clinical Report on Xanthelasma Palpebrarum, and its significance as a symptom"; Dr. James Wynne, "On Central America as a residence for Consumptive Patients."

THURSDAY.—Harveian Society of London, 8 P.M. Mr. F. J. Gant, "On the Inhalation of Calomel Vapour in Secondary Syphilis."—Royal Society.—Chemical Society.—Linnæan Society.

FRIDAY.—Medical Teachers' Society.

SATURDAY.—Association of Medical Officers of Health, 7.30 P.M.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

THE publication of a letter from Mr. Brodhurst, in reply to Mr. William Adams, is unavoidably postponed.

PSYCHOLOGIST.—You will find the small mincer for the dinner-table, manufactured by Messrs. Nye, admirably adapted for the case you mention; in an obstinate patient who refused food, his scruples were overcome by using one of these useful machines himself. They are now extensively used in lunatic asylums with great benefit to the patients, and economy of time to the attendants.

M.D. (Kennington).—The notorious Dr. David Griffith Jones was struck off the list immediately after his conviction. At the moment of going to press, we hear that the College have commenced proceedings against the other person you mention, who will no doubt be convicted.

INCONTINENCE OF URINE.

IN answer to "G. H. S." Mr. T. E. Clark says:—I have found a pill of one-eighth of a grain of extract of belladonna, and half a grain of disulphate of quinine, three times daily, effectual in several cases. I have also placed a small blister behind the scrotum, and kept it open, with marked benefit.

SIR,—“G. H. S.” may possibly find a key to his troublesome case of enuresis if he look for some eccentric cause; the seat being, most likely, abdominal, and the cause tænia. I have lately had a similar case in a boy aged ten years, who had previously been under treatment, taking tonics and cod-liver oil; and even change of air was seriously advised. His appearance was most striking: a pale sunken face; an expression of restlessness and deep anxiety; pupils enormously dilated, accompanied by sudden jerking motions of his body and limbs, bearing much resemblance to the clonic twitches of chorea. He had never suffered from acute rheumatism, and his heart presented no abnormal physical sounds. The urine was loaded with phosphates, and, both day and night, was passing involuntarily from him. Suspecting that these symptoms might be secondary to another cause, I ordered him six grains of santaline, to be followed, in six or eight hours, by a good purge of sulphate of potash. A tapeworm, seven feet and a half long, was expelled almost entire, all the symptoms at once subsiding, and in two days entirely disappearing. Two months have now elapsed, with no recurrence of any of the symptoms, and the expression of the boy's face has totally altered. I need scarcely add that the santaline must be repeated at least three times before a negative result precludes the supposition of tænia. I shall be glad to hear the result of G. H. S.'s case, as I think such cases, only in different stages, by no means uncommon in dispensary practice.

am, etc., J. PENNING BAKER.

MR. SLEMAN, of Tavistock, writes:—Let G. H. S. try the tincture of belladonna; beginning with five minims three times a day. If this fail, let him give one grain of tannin night and morning.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. F. H. HEATHCOTE, not later than *Thursday*, twelve o'clock.

A MEMBER, Bath.—In the interesting letters of the first Earl of Malmesbury, the mother of that nobleman states: “We shall follow your advice of going every autumn to this Bath; as Dr. Woodward says, *it is the milk for old age*.”

MURPHY ANNUITY FUND.

A PROPOSAL, emanating from several of the leading members of the profession, who knew the late Professor of Midwifery at University College—Dr. Edward Murphy—well, has been made to raise sufficient funds (by subscription) for the purchase of such an annuity as shall provide him with the means of a fairly comfortable existence—which he does not now possess—during the remaining years of his life. Dr. Murphy is now aged 68, very infirm, and quite unable to follow any professional or other employment. Misfortune after misfortune has brought him face to face with much distress. In the hope of relieving a talented professional brother from serious want, the following gentlemen have promised their names as contributors to the Murphy Annuity Fund, on condition of other gentlemen uniting with the same object. Dr. Tilbury Fox has, as requested, undertaken the duties of Honorary Secretary *pro tem*.

Sir William Jenner, Bart., Dr. Arthur Farre, J. E. Erichsen, Esq., Sir William Fergusson, Bart., Dr. Russell Reynolds, Erasmus Wilson, Esq., F.R.S., Burford Norman, Esq., William Adams, Esq., J. T. Clover, Esq., W. Squire, Esq., Dr. Little, Dr. Graily Hewitt, Sir Thomas Watson, Bart., Henry Smith, Esq., Campbell De Morgan, Esq., F.R.S., Sir J. Ranald Martin, C.B., F.R.S., Sir Henry Thompson, V. De Méric, Esq., George Bishop, Esq., Dr. Oldham, Barnard Holt, Esq., Dr. C. B. Radcliffe, William F. Teevan, Esq., Dr. C. H. F. Routh, Dr. Greenhalgh, John Marshall, Esq., F.R.S., Dr. C. J. B. Williams, Dr. Gream, George Critchett, Esq., Dr. Andrew Clark, Dr. Ridge, Oscar Clayton, Esq., Prescott Hewett, Esq., Dr. Wadham, Dr. Lawson Cape.

NAUSEA IN PREGNANCY.

MR. T. E. CLARK, Surgeon to the Bristol Royal Infirmary, writes:—In answer to “A Country Practitioner”, I have found two grains of extract of white poppy, every four hours, exceedingly successful; also, a pill consisting of kreasote, half a minim; bismuth, two grains; extract of hyoscyamus, two grains; every four hours. The patient should be made to lie down for some time after each meal.

ANOTHER country practitioner begs to inform “A Country Practitioner” that the only remedy which he has found available in sympathetic sickness, is carbolic acid. He gives two drops three times a day, diffused in a mucilaginous mixture—see BRITISH MEDICAL JOURNAL, March 13th, 1869.

SIR,—The oxalate of cerium, in my experience, is always a palliative and almost invariably a remedy for the sickness in pregnancy: it should, however, be prescribed in doses of less than a grain. I generally have divided ten grains into twelve pills, made up with manna; if more than a grain be given for a dose, it not infrequently increases the severity of the symptoms it is given to suppress.

Egham Hill, Surrey.

I am, etc.,

H. WILLAN JACKSON.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, Feb. 18th; The New York Medical Record, Feb. 23rd; The Boston Medical and Surgical Journal, Feb. 23rd; The Madras Mail, Dec. 26th; The Shield, March 4th; The Philadelphia Medical Times, Feb. 15th; The Philadelphia Medical Independent, Feb. 18th; The Buxton Advertiser, Feb. 25th; The Durham Chronicle, March 3rd; The Western Daily Press, March 3rd; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Dobell, London; Mr. T. H. Bartleet, Birmingham; Dr. Tuke, Falmouth; Messrs. Fannin and Co., Dublin; Dr. J. Worrall, Adare, co. Limerick; Mr. F. C. Kinnear, London; Dr. McKilliam, Huntley; Mr. E. J. Worth, Millbrook; Mr. D. C. Milloy, Greenock; Dr. W. Robinson, Gateshead; Dr. A. P. Stewart, London; Dr. Maunsell, Dublin; Mr. Husband, York; Mr. T. Watkin Williams, Birmingham; The Secretary of the Royal Medical and Chirurgical Society; Dr. H. W. Fuller, London; Mr. Walter Morgan, Pontypridd; Dr. J. R. Harvey, Cork; Mr. Trestrail, Harston; Dr. Batty Tuke, Cupar, Fife; Mr. Vincent Jackson, Wolverhampton; Dr. Boyd, Newcastle-upon-Tyne; Mr. J. J. Bunch, Wolverhampton; Mr. T. H. Browne, Mold; Dr. J. Coats, Glasgow; Iota, Edinburgh; Mr. T. Mason, London; Mr. Austin, Liverpool; Mr. Sleman, Tavistock; Mr. Bush, Frome; Mr. Hopkins, Belvedere; Mr. Clark, Clifton; Dr. Hardie, Manchester; Mr. Pope, Cleobury Mortimer; Mr. H. C. P. Masser, Coventry; etc.

LETTERS, ETC. (with enclosures), from:—

Dr. S. Gee, London; Mr. Erasmus Wilson, London; Mr. Wm. Mac Cormac, London; Dr. A. T. H. Waters, Chester; Mr. Erichsen, London; Mr. J. Savage, Goole; Mr. S. G. Sloman, jun., London; Dr. A. Ernest Sansom, London; The Secretary of the Harveian Society; Mr. S. Oldham, Mottram; Mr. Jonathan Hutchinson, London; Mr. Craister, Leeds; Mr. Lloyd, General Post Office; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Mr. Arnold, London; Dr. J. Milner Fothergill, Leeds; Our Dublin Correspondent; Mr. Fairlie Clarke, London; Mr. Fowler, Bath; Dr. Wolfe, Glasgow; Dr. Woodward, Worcester; Mr. B. E. Brodhurst, London; Mr. Garraway, Faversham; Mr. A. B. R. Myers, Coldstream Guards, London; Mr. J. Penning Baker, London; Mr. Quain, House of Lords; Mr. Headlam, London; Messrs. Leader and Sons, Sheffield; Mr. D. Tulloch, Lochcarron; Mr. Rivington, London; Messrs. Harvey and Reynolds, Leeds; Mr. S. Wright, Loughborough; Dr. Laycock, Edinburgh; The President of the Quekett Microscopical Club; Dr. J. Robinson, Midhurst; Dr. Dyce Duckworth, London; Sir Duncan Gibb, Bart., London; Mr. Miles, Plympton; Dr. G. Hunter, Lillithgow; Dr. Henry Bennet, Mentone; etc.

GULSTONIAN LECTURES ON THE HEAT OF THE BODY.

DELIVERED AT

The Royal College of Physicians, London,
MARCH 1871.

By SAMUEL J. GEE, M.D., F.R.C.P.,

Assistant-Physician to St. Bartholomew's Hospital and to the Hospital for Sick Children.

LECTURE I.—*Concluded.*

WE must admit the truth of Galen's doctrine, that the lungs not only cool, but also fan the blood. But the body at large likewise produces heat, as a result of the respiration of the tissues. This is a fact past dispute. That arterial blood contains more oxygen and less carbonic acid than venous blood, belongs to the elements of physiology. Moreover, the venous blood of any part is poor in oxygen and rich in carbonic acid, according to the functional activity of the part. The vital processes in many parts of the body are so slow that (excepting the brain, of which little is known) the glands and the muscles are the only structures which can be supposed to furnish any considerable quantity of heat. And the glandular and muscular tissues together make up the chief part of the body. Let us, then, investigate the calorific power of these two tissues separately.

First, with regard to the glands. Their temperature rises with the energy of function. At least, this is certainly true of glands whose secretions are the products of oxidation. Ludwig has shown that the temperature of the salivary glands rises 2.7 deg. Fahr. during secretion. And when we remember the manner in which the secreted products are continually carried off, and therewith heat, it is safe to conclude that the amount of heat which most glands set free is great. The clear carmine colour of the renal venous blood would seem to show that little oxidation, and therefore, probably, little production of heat, go on in the kidney. Yet even in the case of the kidney, the elaborate experiments of Alex. Schmidt tend to prove that the oxidation processes within that organ are extremely active.

Next, as to the muscles. Their activity generates heat. Heidenhain, by means of a thermo-electric apparatus applied to the muscles of frogs, found that a single contraction raised the temperature from $\frac{1}{250}$ to $\frac{1}{1000}$ of a degree Fahrenheit. The tetanic state raised the temperature more than a quarter of a degree. Now, this heat, whether simply mechanical force transformed or not, undoubtedly indicates chemical changes going on in the muscles, proportionate to its activity.

But, now, a question upon which I have already touched once or twice can be postponed no longer. The lungs produce heat, and the rest of the body produces heat. But the chemical processes which underlie this production of heat—where do they go on? in the blood, or in the tissues? Was Galen right when he attributed the animal heat to a burning of the blood? "Not one-hundredth part of the oxidation processes of the body goes on outside the bloodvessels." Such is Mayer's dictum; let us examine the grounds upon which it is based.

Mayer seeks to support his dogma by two lines of argument. The first argument, briefly put, is as follows. The pressure of the blood in the blood-vessels, from within outwards, is such as to hinder endosmosis or the passage of liquids from without inwards; in other words, the blood-pressure renders what we may call the intravasation of fluids difficult. And, therefore, do the lymphatic vessels exist, so as to carry off the results of exosmosis, the fluids extravasated from the blood. Now, the quantity of liquid flowing along the blood-vessels is 350 times as great as that which escapes from the thoracic duct in the same space of time. That is to say, only $\frac{1}{350}$ part of the blood, of the oxidating liquid, exists outside the blood-vessels in the lymphatic and other tissues. Yet the blood is deoxidised; *ergo*, not one-hundredth part of the oxidation-processes of the body goes on outside the blood-vessels. You will have observed several serious fallacies in Mayer's argument. He seems to assume that all exosmosis is filtration under pressure; moreover, he takes no reckoning of the secretions. Hence, for these and other reasons, we cannot admit the force of Mayer's first argument; which, however, I believe, Mr. Heaton has recently put in an improved form, and has still arrived at Mayer's conclusion.

Let us proceed to Mayer's second argument, based upon muscular

activity. This subject is so very important, and knowledge concerning it has increased so much of late, that we will desert Mayer's guidance in all but in principle.

That chemical changes go on in a muscle during its activity, no one doubts. The venous blood of an active muscle is richer in carbonic acid, and poorer in oxygen, than in a muscle at rest. Something, then, in the muscle takes up oxygen, and something sets carbonic acid free. What is that something? is it the muscular fibre? We might be strongly tempted to answer straightway no, in view of a few facts such as I will proceed to lay before you. In the first place, Hermann has shown that the presence of oxygen is not necessary to the contraction of muscle; that it contracts in a vacuum, and also in an atmosphere containing no oxygen. He has also shown that no oxygen is stored up in muscle; or rather say, that no oxygen can be pumped out of it. Next, the nitrogenised excreta are not increased by muscular exercise. This fact has been proved, as far as the urea is concerned, by Voit and Haughton, in opposition to the earlier analyses by Lehmann. And Dr. Parkes has shown that the same holds good of the nitrogen passed off from the bowels. Thirdly, the nitrogenised excreta are not proportional to the amount of muscular work performed. I hope, sir, that you will not think that I am straying from my text, or (in respect of the subject which Dr. Parkes has chosen for the Croonian lectures this year) going over unnecessary ground, if, upon this point, I detain you for a minute with an outline of the well-known experiments of Fick and Wislicenus. The study of the muscles, more than of any other tissue, promises to shed great light upon the relation in which oxygen stands to tissue-change. This was the problem put forward by Fick and Wislicenus: Is that quantity of heat which is represented by the nitrogenised matters excreted with the urine during and after hard muscular exercise? does the heat thus estimated correspond in quantity to the heat represented by the mechanical work performed? If there be a deficit in the heat indicated by the nitrogenised excreta, obviously the work is not wholly due to oxidation of nitrogenised tissues—say, muscular fibre. These two men ascended the Faulhorn, and performed between them an amount of work equal to 270,000 kilogrammeters. During the exertion, and for six hours afterwards, they excreted an amount of urea which, reckoned as muscular fibre, would yield by combustion 212,000 kilogrammeters; thus leaving 58,000 kilogrammeters of work actually performed unaccounted for by the amount of nitrogenised tissue burnt. And I beg you to remember that no account is taken of the force given off in the form of heat; and still more, that no account is taken of the work performed by the heart and respiratory muscles, work valued at 340,000 kilogrammeters. At this rate, only one-third of the force set free was accounted for by oxidation of nitrogenised tissue. And Dr. Frankland reduces the third to a fifth, putting, as he does, the combustion-heat of muscle much lower than did Fick and Wislicenus. We speak of half a million of kilogrammeters of work done by two men in a day, and yet the amount of combustibles required for all this is really very small. To take an illustration of Dr. Tyndall's. A man of 145 pounds' weight goes up Mont Blanc; he raises 145 pounds 15,000 feet high. The heat-equivalent of 15,000 feet is twenty degrees Fahrenheit; so that this man consumes heat enough to raise 145 pounds of water twenty degrees; no more than generated by the combustion of two ounces of carbon.

It is, then, highly probable that the oxygen which is lost by the blood of active muscle is not employed in oxidation or combustion of the nitrogenous plasma of the muscular fibre. Yet, after all, it is the muscular fibre which does the work; and, moreover, the common combustion-product, carbonic acid, is set free. Many persons, putting these facts together, and taking for granted that the absorption of oxygen and the liberation of carbonic acid necessarily presuppose combustion—many persons, I say, have deemed it to be well-nigh proved that the assumed combustion must go on in the blood; that carbon is oxidised there; and that the force which this oxidation sets free is assimilated, as it were, by the muscular fibre, which is, in fact, simply the piston and cylinder which transform the heat, generated by oxidation of non-nitrogenous matters of the blood, into mechanical work. But we may not leave the discussion at this point. To the plausible doctrine which I have just stated several weighty objections must be taken. First, it is at least possible that it may be the non-nitrogenous elements of muscle which are oxidated; next, it is certainly a mistake to suppose that heat can be transmuted directly into work without the simultaneous concurrence of at least an equal amount of change of another kind. Thus, in an engine, the heat changes the physical condition of the water, and it is the altered state of the water, the expanding steam, which sets up the movement. And so in the case of the muscle: if the heat of the blood become indeed muscular motion, there must be some intermediate change going on in the muscle—some physical change, analogous to the formation of steam. This physical change in the muscle is doubtless,

coincident with a chemical change, albeit not an oxidation-process, as we have already seen. In fact, Hermann believes that the contraction of living muscle and the *rigor mortis* are alike in kind. The highly complex nitrogenous plasma of the fibre breaks up, under "irritation", into the firmly contracting myosin and other compounds, chiefly acids, which render active muscle sour. The contraction of the myosin is the contraction of the muscle; by its change of physical state, force is set free, both mechanical force and heat: but nothing can come of nothing. The force set free must have been previously absorbed by the muscle from the blood—probably when the myosin undergoes a synthesis back into the original muscular plasma. Hermann suggests that oxygen may take part in this synthesis, and that carbonic acid is produced, together with the paralactic and other acids, of which I spoke, when the plasma breaks up again and contracts. Now, if this be so, then the absorption of oxygen and the liberation of carbonic acid do not form part of the same, but of opposite, processes—there is no combustion. During rest these processes may be of equal activity, but during work they are not so; and it is quite possible that the observation of Pettenkofer and Voit, that oxygen is stored up by the body at night-time, may have something to do with the regeneration of muscle. Combustion takes no part in these changes; but we need not wish to deny that the soluble by-products of the formation of myosin are, as much as possible, oxidated in the blood of the muscle, and that any surplus is carried to the lungs and oxidated there. If, then, by oxidation we imply combustion, or degradation of the amount of tension-force contained in any substance, Mayer's doctrine, so far as muscle is concerned, may still be true, "that the hearth of the oxidation-process is the channel of the blood-vessels"; and again, "not one-hundredth part of the oxidation-processes of the body goes on outside the blood-vessels"—for muscles do not oxidate in this sense of the word.

Let us pass on to consider whether there be any direct proof of the oxidation of the blood; and for this purpose we can employ the observations of Estor and Saintpierre, Hoppe Seyler, and Alex. Schmidt.

Estor and Saintpierre found that the quantity of oxygen contained in the blood of different arteries was not always the same. For instance, when the carotid blood contained 21 per cent. of oxygen, the renal blood contained only 18 per cent., the splenic blood 14, and the femoral only $7\frac{1}{2}$ —that is to say, the blood of the femoral artery contains only one-third as much oxygen as the carotid blood contains. This seems to imply that the farther the blood is taken from the lungs the less oxygen does it possess. Estor and Saintpierre conceive that the change which goes on in the blood of the arteries is the same as that which goes on in the blood of the capillaries; namely, an oxidation of some constituents of the blood; and also, that the capillaries increase the venosity of the blood just in proportion as they foreshow its current, and thereby allow more time for the oxidation to go on in.

Hoppe Seyler admits the facts of Estor and Saintpierre, but draws a different, nay, an opposite, conclusion from them. When he put two ligatures, at some distance apart, upon an artery, enclosing blood, he found that the blood did indeed become venous, but that the venosity proceeded from the wall of the artery. This observation led him to the belief that the blood does not, as Estor and Saintpierre thought, oxidate matter within itself, but that it gives up oxygen to the tissues around, and that the blood, which is close upon the walls of the vessels, loses its oxygen first, as might be supposed. From this and other experiments, Hoppe Seyler concludes that the oxyhæmoglobin of the blood is not the direct means of oxidation; and also that, in vertebrata, no oxidation-processes go on in the blood.

But Hoppe Seyler's views are greatly at variance with the inferences which we may fairly draw from the important experiments of Alex. Schmidt—experiments which seem to leave no doubt possible that venous blood, *e.g.*, the blood of suffocated animals, does contain a large quantity of some material which combines with free oxygen very speedily. Schmidt also found that the venous blood of active muscle contains much more oxidisable matter than the blood of muscle at rest. And herein, probably, lies a partial explanation of the fact, that the venous blood of contracting muscle contains less oxygen than that of quiet muscle. Considerations such as these are closely connected with a topic which we shall have to discuss when we come to the theory of fever—I refer to what has been called the pyrogenic, or fever-making, power of healthy blood.

And now, sir, that we have ended our survey of the chemical theory concerning animal heat, I will proceed to the third, or the mechanical, theory. Harvey was the unconscious founder of the mechanical school of physiology; for he had shown the hydraulics of the circulation to be so beautifully simple, that men sought for mechanical explanations of all the functions of the body. But the mechanical theory of animal heat was not well established until nearly a century after Harvey. If we turn, for example, to the famous Borelli, whose book *De Motu*

Animalium, or rather the second volume of that book, was published in 1681, there, in the 225th proposition, we read as follows: "The violent movement of the heart is the effective cause of the heat of the body, and not the reverse; that is to say, the heat of the body is not the productive cause of the movement of the blood." Borelli had previously striven to prove that each contraction of the heart is able to overcome a resistance of equal to 180,000 pounds—an adequate source of friction-heat surely. You will remember that my colleague, Dr. Black, in the Croonian lectures which he delivered in this place, pointed out the reason of Borelli's great mistake. Five years after Borelli, Stahl also taught that the blood is heated chiefly by motion, and chiefly, moreover, by motion through the lungs; and hence those animals which breathe most have hottest blood. But what did Borelli, Stahl, and Hoffmann, mean by this motion which was of power to generate animal heat? They did not mean motion of the blood in mass along the vessels; for, as Borelli declares, "I believe that the origin of heat is by no means to be sought in the motion as mere motion: the heat does not depend upon friction of heterogeneous particles of blood". In fact, by motion they meant a turbulence of certain inflammable particles existing in the blood—possibly a dim conception of those molecular movements which are supposed in the present day to underlie the phenomena of heat.

Haller tells us that, towards the close of the seventeenth century, when more regard was had than previously to the solid parts of the body, and when the authority of chemical causes began to decay, a notion sprang up that the heat of the body was produced by motion in the sense of friction. Malpighi's discovery of the capillary vessels and of the blood-corpuscles rendered this explanation easy. The blood rubs against the walls of the vessels, and the corpuscles rub against each other, so that animal heat became a mere topic of the circulation of the blood, and is so treated of by Haller in his *Elements*, where he thus sums up: "So far, at all events, it is most probable that the blood is heated by motion", that is, by friction. In fact, the use of the corpuscles is to increase the friction, and the iron which the corpuscles contain is serviceable to the same end, for is there any other body which becomes so hot by friction as iron does?

Before we leave this doctrine, you will allow me to refer to one more particular. The physiology of the last century, as represented by Haller, did not need a respiratory function. All the animal machinery could be explained excellently well without what seemed to be an unnecessary process; and yet the fact remained that animals did breathe, and also quickly died if they did not breathe. Then respiration simply distended the lungs, and so enabled the pulmonary circulation to be carried on. But what when animals continued to breathe exhausted air and yet were suffocated? The air, in that case, might be supposed to lose its elasticity, so that the lungs collapse, nevertheless, and the circulation is arrested. We also believe that air which has been breathed loses its elasticity or tension-force, but hardly in the gross sense of the word elastic as understood by Haller.

The mechanical theory of heat at the present day resolves itself into a matter of the transformation of muscular work into heat. Undoubtedly the whole force exerted by the heart becomes changed into heat, in consequence of the resistance which the blood-vessels oppose to the pressure of the blood. But, nothing can come of nothing. The heart does not create all this motive power out of nothing. The heart, like any other muscle, is only the means by which the conversion of force is brought about. The heart abstracts tension-force from the blood, and returns it to the blood as motion; but the heart is not consumed. The power of the left ventricle has been estimated at 56,000 kilogrammeters per twenty-four hours. But, if we take the much lower estimate of Dr. Playfair—38,000 kilogrammeters for the whole heart, seeing that the combustion-heat of muscle is 660 kilogrammeters per *gramme*—a simple calculation shows that, if the heart's force were due to combustion of its muscular tissue, it would be wholly consumed in about two days. The results at which we arrive with regard to the voluntary muscles are thus corroborated.

When the body is at rest, the movements of the heart, chest-walls, and other parts, are wholly converted into heat. It is only when the body is performing work, that is to say, imparting motion to external objects, or to itself as a whole, that any of the force set free in the body is not manifested as heat. The friction of the circulation is no gain of heat to the body: whether the ingested tension-force pass directly into heat, or whether there be an intermediate stage of muscular movements, makes no difference. The heat produced by friction within the blood-vessels was once thought to be illustrated by an observation of Bernard's, to the effect that the blood of the renal vein is warmer than that of the renal artery; the excess of heat within the vein was thought to be wholly due to friction, inasmuch as the venous blood is of a bright carmine colour, supposed to indicate the small amount of oxidation which goes on in the kidney. But the experiments of Alex. Schmidt,

to which I have already alluded, show that oxidising processes within the kidney are not slack. The observation of Onimus is more to the point: that the ligature of a large artery instantly raises by one degree the temperature of the blood hurled against the obstruction.

Before leaving this part of our subject, I may just remark, with regard to the actual amount of heat produced by the animal machine, that Helmholtz reckons that a man of 180 pounds' weight, under ordinary circumstances, generates in twenty-four hours an amount of heat which would raise 11,000 pounds of water one degree Fahrenheit. In other words, the heat which he sets free would raise a weight of water equal to his own sixty degrees.

The second division of the subject, the ways by which we lose our heat, shall not keep us long. Cold ingesta, air and food, are an obvious cause of loss of heat to the body. The same may be said of radiation and conduction from the surface. Evaporation of water from the skin and lungs abstracts a large quantity of latent heat. Radiation and evaporation from the skin are very variable quantities, dependent upon the state of the skin as to vascularity, and upon the state of the atmosphere as to heat and moisture. But the evaporation from the lungs is much more constant, inasmuch as the air within the lungs is almost invariably saturated with watery vapour. The frequency of the respiratory movements is the chief means by which loss of heat from the lungs is regulated. The remaining causes of loss of heat are less important. Liquefaction of the solids of the food probably absorbs some heat; also certain processes of hydration and dehydration, such as Berthelot has pointed out. The separation of carbonic acid from the blood; the synthesis of the more complex molecules of the body, hæmoglobin and the plasma of muscle and nerve; also the casting off of imperfectly oxidated matters, epithelium, milk, sebaceous matter, kreatinin, hippuric acid, and so on; all these must be means by which the actual or potential heat of the body is diminished.

But when we pass from the animal at rest to the working animal, we light upon a new and active source of loss of potential heat. Yet, inasmuch as contracting muscle generates heat at the time of contraction, and also the cardiac and respiratory movements are increased, the actual temperature of the body is raised by exercise. And just as work is a loss of potential heat, so this formation of heat by exercise is a loss of potential work. To paraphrase Mayer once more:—"The production of work and heat are antagonistic; hourly experience teaches this. To go far, we start slowly; haste makes waste. The workman seeks to lessen sweating, thereby to husband his strength; no horseman likes his horse to become warm. In common life we say, no work should be carried to the sweating point; in scientific language, the increased production of heat is at the expense of the power to work. With the same consumption of force, it is the cool phlegmatic man who labours to the greatest profit."

And, lastly, with regard to another form of force—electricity—Paul Bert has made the interesting observation upon the torpedo, that repeated discharges of electricity lower the temperature of the body. Potential heat is lost as free electricity.

THERAPEUTIC MEMORANDA.

THE EFFECTS OF SANTONINE.

THE instance recorded by Dr. Sieveking, of santonine producing urticaria, is, I should think, unique. I have frequently administered it for the *ascaris lumbricoides*, which infests, principally, I believe, the jejunum, with unexceptional success, and generally order it to be taken on an empty stomach, in a small quantity of a semi-fluid vehicle, such as arrow-root. I am not aware, however, that it possesses any efficacy in *ascarides*, as Dr. Sieveking has stated. It is said that santonine is only soluble in the alkaline secretions of the small intestines, where its active and bitter principle acts as a vermicide. In several instances patients, both children and adults, have complained sometimes of nausea and giddiness, as well as a yellow tinge imparted by vision to surrounding objects, similar to that assumed by the salt itself when exposed to the light for any time.

In these cases I have noted that none of the parasites were expelled, the remedy having been taken on suspicion of their presence, or after their expulsion, which sometimes occurs spontaneously or after the administration of some other drug.

Lacock, Wilts.

J. H. CRISP.

LECTURES ON DERMATOLOGY.

DELIVERED AT

The Royal College of Surgeons of England.

By ERASMUS WILSON, F.R.S.,

Professor of Dermatology in the College.

LECTURE V.

ECZEMATOUS affections are entitled to the fullest share of our attention, as being the most numerous and probably the most important family of diseases of the skin, and as including all the more common forms of cutaneous disorder. Thus we have seen eczema represented as a simple inflammation of the skin, manifesting its operations by an erythematous, a papulous, a vesicular, an ichorous, a pustulous, and a squamous lesion, each of these lesions being accompanied by one or other of the rest in a greater or less degree. Next, we have seen the papular type of eczema in a separate form, and the pustulous type of eczema also in a separate form—the former of these receiving the name of lichen, and the latter that of impetigo. Then I have endeavoured to explain that the chronic stage of eczema, when the principal remaining lesion is exfoliation of the cuticle in small fragments or scales, has received the name of psoriasis and pityriasis; and, moreover, that an eczema resulting from the presence of a parasitic animal-cule, the *acarus scabiei*, is denominated scabies. In this manner we have had presented to us six terms of common use in relation with dermatology; namely, eczema, psoriasis, pityriasis, scabies, lichen, and impetigo. Every one of these terms represents a well-defined form of disease; and, although all the forms of disease so represented are of the nature of eczema, and are members of the group of eczematous eruptions, yet each has peculiarities of its own, which render their separate consideration a matter of convenience.

It may be remembered, however, that I took occasion to except from the eczematous family two forms of lichen; namely, lichen planus and lichen urticatus, both of which are sufficiently well marked to take a position by themselves, and in some future classification to be allied with some other group; for example, lichen urticatus with urticaria, and lichen planus with a group founded on the follicular pathology of papulæ. The distinction between follicle and non-follicle opens up a very interesting field of inquiry in relation with cutaneous disease. It may be stated in general terms that the papillary portion of the skin cannot be inflamed without participation, to a certain extent, on the part of the follicle; but the reverse of this proposition is not equally true, for folliculitis in a great variety of forms may exist without a similar participation of the interfollicular papillary layer. The evidence of this fact has been before us in the instance of polymorphic eczema, in scabies, and especially in eczema papulosum and lichen. In eczema papulosum, the pathological state of the follicle is one of simple hyperæmia and consequent infiltration, and therefore comes under the denomination of *dry eczema*; but we also find in relation to the follicles a state corresponding with *moist eczema*. If an excoriated surface in eczema ichororum be closely examined, the follicles may be seen giving exit to a transparent lymph in considerable abundance; and in the purulent stage of the exudation the excretion may be opalescent and puriform; so that the same language that we have heretofore held with reference to eczema in general may be applied separately to the follicles, which in the eczematous family present us with an erythematous, an ichorous, and a purulent form of folliculitis.

With the exception of eczema papulosum and lichen, the state of the follicles is most prominently brought before us in impetigo, which in its pathognomonic form is a purulent folliculitis. It is this pathological structure that gives to impetigo its limited and fixed character. It is never so extensive as common eczema, but evinces a disposition to develop itself in small circumscribed blotches—impetigo figurata; and it is very commonly met with as an affection of single follicles—impetigo sparsa—particularly in the region of the scalp and upon the face, where the follicles are larger than elsewhere. As the term "catarrhal inflammation" has sometimes been applied to eczema by way of illustration, we might with equal truth make use of the term "catarrhal folliculitis" in reference to impetigo as a similar illustration.

And here it becomes necessary to say a few words on the subject of a special characteristic of impetigo; namely, crusts. The copious exudation of impetigo dries on the surface, sometimes under the cuticle, and at other times, where the cuticle has been removed, on the excoriated surface; and it necessarily presents some variety in colour, in thickness, and in density. In colour it may be grey, or of an amber tint, or yellow, in various degrees; and when the exudation is mingled with blood, it may also be reddish, or brown, or even black, while the thickness and density of the crust will be determined by the quantity and degree of inspissation of the excretion. The Greeks undoubtedly had this affection in view when they made use of the term "melitagra", the honey-affection, from the general resemblance of the crusts to a paste of honey dried upon the skin.

Having now completed a preliminary and discursive sketch of the eczematous affections, let us transfer our thoughts from the pathological theatre to the consulting-room or to the bedside, and direct our attention to the *treatment* of eczema, beginning with the *local* or proper surgical medication of the disease. The local symptoms in all the various forms of eczematous affections are essentially the same, differing only in quantity and degree, and the same principle of treatment is therefore applicable to the whole. The chief of the symptoms are heat and itching. Our patients will sometimes speak of burning and scalding, and sometimes of tickling, creeping, and biting, as if from the agency of animalcules in the skin. These symptoms necessarily destroy comfort and repose; they are aggravated by rubbing and scratching, and before very long they increase to a degree to become intolerable, and either give rise to constitutional disorder or augment any constitutional disorder which may have existed before.

Such is the case which is now brought before us. What shall be done to alleviate or remove these symptoms? We may assume that which is apparently self-evident, that the symptoms are due to inflammation of the skin; therefore the question narrows itself into a sphere of very limited extent. Let us fall back on a very familiar illustration—the erythema or eczema which sometimes accompanies the use of appliances for the treatment of wounds, of injuries, where a limb or a portion of skin has become irritated by the application of dressings or bandages, or by the contact of discharges; or let us set before the mind another common example of inflammation of the skin, namely, erysipelas. The inflammation is one and the same; the remedy—at least in principle—should be the same also; and one and all will be equally soothed by the use of the dredging-box.

It is necessary to bear in mind always that the skin in a state of inflammation is in a state of irritation; and all our acuteness should be directed to the very matter-of-fact and common-sense object of avoiding to increase that irritation by the remedies we employ. A sound and practical aphorism has been attributed to Boerhaave, "Abstine si methodum nescis"; and, in the language of Hippocrates, we must "do good, or, at least, do no harm". But it is clear that, while we are obeying the first indication of palliation by means of the farina tritici, we can certainly do no harm with our remedy, while we may be giving the greatest possible comfort to the patient, and taking the first proper step towards cure. Of a nature akin to the farina tritici, and more pharmaceutical in its character, is the amyllum tritici or wheaten starch, which may be employed alone or in combination with oxide of zinc, and with or without the addition of camphor. Besides flour and starch there are one or two other powders which have also their merits, although they take a secondary place—for example, Fuller's earth, oatmeal, and the seeds of the lycopodium.

We may sometimes find our patient beforehand with us in the use of these remedies, and we must be careful how we attempt the substitution of an application that may not be so successful. On the other hand, we must be prepared for the occasional mortification of making the discovery that the medicaments, which with much care and thought we have prescribed, have given rise to unbearable irritation, and that the patient has only obtained relief by employing a remedy derived from the kitchen in lieu of that from the pharmacy. I cannot too often repeat that the skin, under the influence of inflammation, is an organ, frequently, of exquisite sensitiveness and of excessive irritability, and demands our utmost anxiety and care in its management.

It may occur to us sometimes to inquire, What are the properties which we desire our remedy to possess?—a not unwholesome question. Well, at the present early period of the disease, and at the palliative stage of our treatment, we may say: We want a coating of protection to a morbidly sensitive and highly irritable surface, and the material of the coating must be perfectly unirritating. Such an application we had in the farina tritici, and also in the amyllum tritici; but, as we may find a difficulty in securing the adhesion of these powders to the surface, let us see what else can be done: let us take of lime-water half a pint—and lime-water of itself is an excellent remedy, and sometimes the only

application the eczematous skin will bear—but we will thicken the lime-water by the addition of oxide of zinc and calamine powder, of each three drachms; and we will give to the inspissated fluid a certain adhesiveness by the addition of a drachm of glycerine. Here, then, we have an excellent lotion which we may paint over the inflamed skin, with the certainty of its unirritating property, and with the assurance that it will deposit a coating on the eruption which will act as a defence against external friction, and particularly against the irritant properties of the atmospheric air.

I wish it were unnecessary to add as a caution that the material of our remedies must be of the very purest kind, and where this is not the case we may be defeated in our object, and, with loss of reputation to ourselves, lose faith in our remedies and lose faith in our faith. On the other hand, it must be admitted that we may sometimes fail with the most excellent materials, particularly where we are wanting in a sufficient familiarity with their use.

Powders and desiccative remedies are adapted for the early stage of eczema, whether in its erythematous, its papulous, or its vesiculous forms, and are sometimes equally applicable to erythematous complications of the other forms, or are useful in drying the skin when in a languid, damp, and exuding state; but their especial value is shown while the outbreak of an eruption from internal causes is still progressive, and where the skin is too irritable or sensitive to bear other remedies, and especially ointments.

It is a maxim worth remembering, that, where a remedy agrees with the skin, it will be proper to leave well alone; and if the powder just mentioned or the lotion relieve the burning and itching, and the redness subside under their use, we have no need to seek further; but if, on the other hand, the disease move onwards a stage and assume a more chronic character, especially if the itching and dryness or exudation put on a more decided form, we shall be in want of another application, and in this case we shall find none so appropriate and so much to the purpose as the benzoated ointment of oxide of zinc. There are certain remedies which would seem to be so intimately associated with forms of disease that they come to the mind with the mere mention of the disorder. This is the case in the instance of scabies and sulphur, syphilis and mercury, chronic syphilis and iodide of potassium, gout and colchicum; and such remedies, absurdly enough, have the reputation of being specific, as though the remedy could act independently of the control of the constitutional power of the individual. But if the word *specific* have any signification whatever in reference to the diseases just named, the benzoated ointment of oxide of zinc certainly has that claim in relation to eczema. There is scarcely a period of the career of eczema in which it is not the best remedy that can be employed, with the sole exception of the earliest outbreak of the affection.

THE EXTERNAL USE OF DIGITALIS.

IN the JOURNAL for March 4, Dr. Handfield Jones has referred to the external use of digitalis. From my experience, any doubt as to the efficacy of this mode of employing certain drugs arises from its imperfect application. Ordinary fomentations, as recommended by Christison (*Dispensatory*, art. *Digitalis*), exert but little power. In August last I saw a severe case of renal dropsy (in consultation with Mr. Butler of Guildford) in a gentleman from whom he had removed a great part of the inferior maxillary bone, which was necrosed. From various causes, no good results could be obtained from the internal administration of medicines. I advised the application of one ounce of the tincture of digitalis sprinkled over a large piece of spongio-piline wrung out of boiling water. This was applied in the evening. During the night there were excessive vomiting and occasional syncope. Mr. Butler was called early in the morning, and found the patient pulseless and in a state of great prostration. After the free administration of brandy, he rallied.

To confirm the supposition that the severe symptoms arose from the digitalis, in the course of a week I asked Mr. Butler if he would administer half an ounce in the same way, but he declined, alleging his conviction of the powerful effects of the drug thus used. Cases are reported by Dr. Reynolds and Mr. Jenkins, in which poultices of digitalis-leaves, applied to the abdomen in "suppression of urine", gave the most satisfactory results. In our case, there was little or no diminution of the fluid from the one application. In a case of severe abdominal pain, arising probably from a cancerous state of the bowel, I am using the wet warm spongio-piline bandage, sprinkled with tincture of aconite and solution of opium. It gives great relief.

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ABSTRACTS OF CROONIAN LECTURES

ON

SOME POINTS CONNECTED WITH THE
ELIMINATION OF NITROGEN FROM
THE HUMAN BODY.*Delivered at the Royal College of Physicians, London.*

BY E. A. PARKES, M.D., F.R.S.,

Professor of Hygiene in the Army Medical School at Netley; Emeritus Professor
of Clinical Medicine in University College.

LECTURE I.—Wednesday, March 15th.

DR. PARKES commenced his lecture by remarking that there are few facts more striking than the dependence of the phenomena of life on the organisation of a small number of substances. The agents are few, and simple; but the results are numerous and complex. With little more than half-a-dozen elementary substances, the Divine hand has formed all the grades of life, from the lowest forms of existence in which vital phenomena are manifested, up to man.

Among these few substances of which living bodies are composed, a prominent place must be given to nitrogen. This used to be regarded as a mere sort of negative body—as a diluent of the oxygen of the air. It is now, however, no longer considered in this light. The atmosphere furnishes ammonia and other nitrogenous compounds which serve as food for plants, where they are elaborated into materials capable of supporting life in animals. No manifestation of life is possible without nitrogen; wherever growth, contractility, thought, occur, the organs contain nitrogen. Nitrogen is continually entering and leaving the animal body. How or where does it so enter and leave? Into what combinations does it enter? What part does it play? These are some of a series of questions, the correct answers to which would take in a general view of the process of nutrition.

Nitrogen enters the body mostly with the food, in the albuminous compounds formed by plants. These are appropriated by animals, converted into material capable of performing the functions of life, and, when used, discharged and resolved into more simple combinations. A small quantity is absorbed into the blood from the inspired air, under pressure, and more is eliminated in expiration, also under pressure; some nitrogen is also probably absorbed from water—and this is probably the source of the nitrogen found in the stomach. It may, then, be said, that there is no evidence that nitrogen, as an element of nutrition, is taken into the body in any other way than with the food.

As to the manner in which nitrogen leaves the body, there is more doubt. Except by a few observers, it was formerly held, by Regnault and Reiset, and others, that as much as one-third or one-half of the excreted nitrogen was removed by the lungs and skin. This conclusion was arrived at on account of the methods of investigation then in use failing to discover a sufficient elimination of nitrogen by the kidneys and bowels. Later researches, however (especially those of Voit), have shown that nearly all the nitrogen of the food can be accounted for by that found in the urine and fæces. It has been shown, that the early experiments contained errors; and that the doctrines of Regnault and Reiset as to the amount of nitrogen given off by the lungs and skin must be regarded as obsolete. From an investigation of the elimination of nitrogen in thirteen healthy persons, Dr. Parkes has arrived at results which correspond closely with those of Voit, and leave no room for doubt that the fæces and urine yield, on examination, a quantity of nitrogen equivalent to that contained in the food.

Again, it has been held that the analysis of the sweat gave evidence of the presence of urea; but there is now much evidence against this. Ammonia has been said to have been found excreted by the skin of rabbits; but this statement has been questioned. Dr. Parkes has caused men to take exercise in hot weather so as to increase the elimination from the skin; but has never found that the amount of nitrogen excreted by the bowels and urine was thereby affected to any appreciable amount.

Much error has arisen from not taking into account the possibility of the formation of ammonia by substances undergoing decay in the mouth and gullet, from carious teeth, etc. Some excellent observers, as Voit, have found no ammonia in the expired air; others, as Richardson, Reuling, and others, have found a small quantity, which has been variously estimated from one-fourth to six-tenths of a grain in twenty-four hours; others again, as Viale and Latini, state that they have found much larger quantities—but there must be some error in their conclusions. On the whole, the amount of nitrogen eliminated by the

lungs must be so slight that it may be dismissed from consideration, in regard to the healthy subject.

A question of importance, however, arises here. Are ammoniacal compounds given off from the lungs in any disease? No doubt, ammonia is found in the breath in cases of disease affecting the mouth and fauces, and in certain morbid conditions of the stomach; but in all these instances it arises from decomposing substances and not from the lungs. But is it expelled from the pulmonary mucous membrane in any disease? Frerichs stated, that he found carbonate of ammonia exhaled by the lungs in uræmic subjects; and he taught that this ammonia was produced by the decomposition of urea. This doctrine seemed plausible; but it has since been pointed out that there may be intense uræmia without any ammonia in the breath. In enteric fever, the expired air is usually free from ammonia. In exanthematic fever, ammonia is very rarely present in the breath; and when it is found, it can be traced to the decomposing substances on the tongue and gums. In more than 130 cases of disease of all kinds, Reuling found no ammonia in the expired air. Looking, then, to the numerous cases in which ammonia is not found in the breath, and to the sources of fallacy arising from the possibility of its origin from decomposing matters in the mouth, etc., there is great doubt as to its being excreted by the lungs.

Again, there is some doubt as to the excretion of nitrogen by the sweat. In cholera, the sweat has been found to yield crystals of nitrate and oxalate of urea; and it is difficult to reject the evidence on which this statement is founded. Leucin and tyrosin are also said to have been found in the sweat; but their source was probably decomposed epidermis. This question as to the elimination of nitrogen by the skin is one of practical importance; for it is believed that, by means of remedies acting on this organ, it is made to assist the kidneys in their function of excreting urea.

What are the relative proportions in which nitrogen is removed by the kidneys and bowels respectively? The composition of the fæces bears a relation to that of the food: when this is chiefly animal, they contain much nitrogen; when starch and fat are added, they are moister, and the amount of nitrogen is diminished. In experiments on five healthy young men fed on mixed diet, Dr. Parkes found that the percentage of nitrogen eliminated in the fæces during twenty-four hours varied only from 1 to 1.332; the mean being 1.207. The amount of nitrogen excreted by the fæces in twenty-four hours has been found to reach from 270 to 302 grains; but this amount varies according to the quantity of nitrogenous food, and, when the diet consists chiefly of fat and starchy matters, may fall to 6 or 7 grains.

Is there any constant relation between the quantity of nitrogen in the fæces and that in the urine? At first, one would be disposed to answer in the negative; yet there is a comparative constancy in the results obtained, which shows that perhaps some definite relation may be shown to exist. In certain diseased conditions, much of the food is discharged undigested, and here the ratio would be altered; and again, in diarrhoea, there is a weeping out of albuminoid substances from the surface of the intestines. The comparison of the fæces and urine, with regard to the amount of nitrogen eliminated by each respectively, may hence become a matter of practical importance.

For the detection of urea in the urine, much reliance has been placed on Liebig's nitrate of mercury test. But this test gives indications similar to those of urea with colouring matter, kreatin, and the cryptophanic acid described by Dr. Thudichum. The quantity of urea, however, preponderates very greatly over that of the other substances named. Again, Liebig's method requires corrections, which may in themselves be sources of fallacy, and are liable to lead to too high an estimate of the quantity of urea.

Another method is that of burning the urine with soda-lime. In the process of analysis by soda-lime, it is important that the substance to be examined should be dried; but this is difficult in the case of urine, as the urea is readily decomposed by heat. Voit proposed to overcome this difficulty by adding five cubic centimètres of urine to soda-lime in a glass retort, and drawing off the water. Dr. Parkes, instead of glass, uses a small platinum flask, with an arm reaching into free acid. The flask is heated until the ammonia is all distilled; then the quantity is determined by neutralising the remaining free acid. Nearly all the nitrogen of the human urine can be accounted for by that obtained from the urea; next to the urea comes uric acid, and then kreatin and kreatinin, cryptophanic acid, and extractive matters. In birds, the reverse is the case; uric acid is the principal ingredient of their excreta; urea has only lately been found in them.

Into what combinations does nitrogen enter? and what part does it play in the animal economy? If we could answer these and some allied questions, we should go far towards explaining the secrets of vitality. But this we cannot yet do. In like manner, the secrets of chemistry are equally beyond us. We see an entire change of the properties of a

Substance produced by the mere small addition of some one element ; and all that we can say is, that the molecular rearrangement brings about a physical transformation. Chemical science is, in fact, a mere record of what is observed ; it does not explain the essential character of the phenomena. Much more is this the case when we have to deal with the processes which underlie life. If we attempt to investigate vital action, we are overwhelmed by the difficulties of the problem.

CLINICAL RECORDS.

From the Practice of PROFESSOR ERICHSEN at University College Hospital.

III.—*Injury of Elbow-joint by Passage of Cart-wheel over Arm: Ankylosis: Large Unhealed Granulating Wound: Resection of Joint: Skin-grafting: Disappearance for a Time of the Transplanted Skin: Reappearance: Cicatrisation: Recovery.*

CHARLES HARCOMB, aged 13, was sent up from Dursley Workhouse. Up to the time of the injury, he had enjoyed good health. He had five brothers and one sister, all healthy, except one who had a diseased hip. His father ran away some years ago ; and since then the family had been in great poverty and badly fed. Nineteen months ago, he fell in front of a waggon, and one wheel passed over his elbow ; the bones being broken, and the skin extensively torn. He was at once taken to the Dursley Workhouse Infirmary, where the surgeon removed some fragments of bone. He had been at the workhouse ever since. His arm was kept in a splint for a long time. A small piece of bone, about the size of a pin's head, came away a few months ago. With that exception, no bone came away, except what was removed immediately after the accident ; but the wounds over the elbow never healed. On admission, he was a thin delicate boy. His right elbow was firmly ankylosed at a right angle. Pronation and supination were impossible. The hand was midway between pronation and supination. The muscles of both the arm and the forearm were much wasted. The elbow presented two considerable projections, one at the inner, and one at the outer side. That on the inner side seemed to be the olecranon process, and that on the outer the remains of the external condyle of the humerus and the head of the radius. The whole of the back of the elbow was covered by thin cicatricial tissue ; and apparently the skin was either torn off by the accident, or sloughed afterwards. Over each of the bony processes was a sluggish granulating sore ; that on the inner side being the larger, and about the size of a half-crown. These sores had long been stationary, and showed no disposition to cicatrise ; the bone at these parts projecting considerably above the level of the skin. He was kept in hospital till October 3rd, to improve his general health before anything was done. Mr. Erichsen then excised the elbow-joint. The ends of all the bones were removed. After being exposed by an H-shaped incision through the thin posterior band of cicatricial skin that lay between the two sores, the ankylosis was found to be due to firm fibrous tissue. The limb was put on a splint in the extended position. The flaps were necessarily formed of the thin cicatricial tissue left by the primary injury. Oct. 24th. Since the last note, there had been nothing to observe as to the boy's general health, which had been but little affected by the operation. The thin posterior flaps became discoloured on the day after the operation ; on the third day, they sloughed completely. The result was, that there was a granulating surface left over the elbow, about two inches in length, by two broad. To-day, Mr. Erichsen transplanted three pieces of skin from the other arm to the sore. Each was of about the size of a grain of barley. They were fixed to the sore by means of isinglass plaster. On Oct. 26th, Mr. Erichsen transplanted two more pieces of skin. The first ones remained in their positions, and seemed but little altered. Nov. 1st. Of the pieces transplanted, all the first and second series had disappeared. Two more were transplanted by the house-surgeon to-day. Nov. 7th. One of the second series reappeared to-day ; both of the third were doing well. Nov. 9th. Another of the old pieces reappeared to-day. Nov. 14th. The sore was healing rapidly. No more of the transplantations had reappeared. Passive motion was ordered to be used to the joint. Nov. 21st. Another piece reappeared in the upper part of the wound. Dec. 1st. Three more pieces were transplanted from the leg. Dec. 7th. Two of the last transplantations had disappeared. One had remained unchanged, and cicatrisation was proceeding rapidly from its edges. After this date, the sore healed rapidly ; but the cicatrix became so firm as to render any movement of the joint impossible. It was, therefore, allowed to ankylose at a right angle. On Jan. 13th, 1871, he was nearly well. On February 11th, he was sent to Eastbourne, with the wounds healed. Three of the pieces of skin could be distinctly seen in the scar.

In his clinical remarks on this case, Mr. Erichsen pointed out the great value that had been derived from skin-grafting ; as, lacking this process, amputation of the arm would probably have been required. At the time of the excision there were two large ulcers, perfectly indolent, one on each side of the joint, divided by a bridge of cicatricial tissue, and surrounded by extensive and thin cicatrices, in which no reparative action existed. After the removal of the protruding condyles, over the summits of which skin could not form, the thin cicatricial tissue sloughed to so great an extent that a granulating surface was left, which would probably have been incapable of repair, but for the aid furnished by skin-grafting. Mr. Erichsen further pointed out the very interesting fact observed in this case, as in many others, that, although some of the grafts disappeared a few days after transplantation, yet the formative force communicated by them to the granulations to which they had been applied was sufficient to generate islets of new skin, which became fresh centres of cicatrisation.

THE PRESERVATIVE AGENCY OF LOWERED VITALITY.*

By J. MILNER FOTHERGILL, M.D.,

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At a time when nutrition is regarded as the basis of treatment, and the improvement of injured parts is regarded as resting on improvement in the general health ; when, in fact, disease is regarded as a deviation from health in the direction of general or local debility, we are apt to lose sight of the fact that an inferior form of general health, a lowered general vitality, may be the safest form of existence. It is now generally held that health consists in a subtle balance of various parts—an adaptation to each other in power as well as in function. Disease is a disturbance of that balance, and ends in two ways—in a restoration of balance, a rocking towards an equilibrium, or in a rocking to final overthrow in death. In acute disease, perhaps, the depressed balance is overturned at once ; or, in protracted convalescence, the oscillation, manifesting itself by relapses, may be continued for a considerable time, and rest may be finally attained, but perhaps in a far inferior form of existence : there may have been a general “levelling down” as the only mode of existence permitted to the organism. If the injured organ be one whose function is important to the economy of the microcosm, the system must lower itself so far, that the injured organ can fulfil the duty imposed on it ; thus a species of existence may be maintained, eked out frequently by vicarious action. This general lowering has an action directly preservative, and tending to prolong the existence of the organism. The injury of one part, if at all of a grave nature, thus reacts on the whole system, and produces what is commonly called “confirmed ill-health”. It very frequently happens, however, that such a condition is much more favourable to life than if the rest of the body had remained unimpaired. If the organ fulfils an important function, it is impossible for the organism to exist without being impressed by injury to it ; but even when it may not exercise any important chemical function, but a purely mechanical one, this holds equally good : thus, in an aneurism, general lowered vitality is directly preservative, as lessening the risk from strain. There is no comparison between the hazard of rupture of the sac in a person otherwise perfectly well and feeling no discomfort—no impossible condition—and in another whose general debility forbids him exertion. This is an extreme instance, and the general lowered vitality cannot commonly depend on the existence of the aneurism—it may be a mere coincidence ; but, if the existence of the aneurism be detected, rest is imperatively imposed on the patient and exertion forbidden, as imperilling his existence. In the heart, however, injury is more frequently followed by systemic disturbance as a direct result ; and those cases where the disturbance is in direct proportion to the injury, as in valvular lesions, are much less liable to sudden death than those cases where a grave tissue-degradation may still allow a fair share of muscular activity ; then effort is usually followed by sudden failure. Sudden death, as the consequence of heart-disease, is much more commonly associated with fatty degeneration than with valvular lesions : and wherefore ? Because the one entails, necessarily, a systemic impairment, and the other may, and commonly does, not. But to the experienced physician the life of the hale man with a fatty heart going about with more or less exertion is infinitely more precarious, and, looking at it from an insurance point of view, worse than that of the confirmed invalid labouring under a valvular lesion. It is infinitely more hazardous to have grave injury of one part, without general systemic lowering, than where that “levelling down” is

* Read in the Medical Section at the Annual Meeting of the British Medical Association in Newcastle-upon-Tyne, August 1870.

absolutely necessitated, and the discovery of the injury is always accompanied by rules laid down impressively for general quiet; in fact, an artificial general lowering is imposed as the means best adapted to the continuation of the existence of the organism.

One curious well known empirical verification of this principle is to be found in the gloomy prognosis usually associated with any great increase in the appetite of the consumptive. Where the digestive system sympathises, as it is called, with the injury to another viscus, life is prolonged more effectively than where the digestive organs are still capable of manifesting the sensations of hunger and keeping up the desire for food. Thus, when the consumptive begins to eat ravenously, the prognosis darkens—an empirical fact long recognised. The explanation runs thus: the sensation of hunger depends on a condition of the blood, which is manifested by sensations referred to the stomach, and is commonly relieved by the taking of food. But in the consumptive, where the capacity to manifest sensations is unimpaired, where the general power is unequal to digestion and assimilation, the look-out is far worse than where the inclination for food is proportioned to the capacity of the organism to digest it. Thus a few spoonfuls of beef-tea or milk are digested and the blood improved thereby; but where the appetite is ravenous, the result is widely different. A full meal is taken; so much saliva and gastric juice, with no little amount of vital energy, are consumed in the attempt to digest the mass—utterly unsuccessfully, for no part of it is digested; so much more power is withdrawn from the system to get rid of the undigested material. Thus the condition of the blood is unrelieved and the sensations of hunger unappeased; and if the inclination for food remain unaltered, the continuation of the existence of the organism is seriously imperilled. A precisely similar condition is not uncommonly met with in the lobular pneumonia following measles or whooping-cough; and the wasting goes on hand-in-hand with an increasingly voracious appetite.

But from imperfect assimilation we will pass on to incapacity for elimination. It is the common experience of us all that certain elderly people in more or less infirm health instinctively avoid nitrogenised food, and select a diet analogous in material to the choice of a child. It has commonly been supposed to be an outcome of second childhood; but there is something more significant in it than that. These persons will ordinarily be found to be suffering from chronic renal disease, and the selective choice is an instinctive self-preservative act. They have found out for themselves, in a manner which they perhaps cannot explain, that they are not so well after partaking of animal food. The direct consequence of such food is to tax the kidneys in getting rid of the products of retrograde tissue-metamorphosis, and this incapacity is felt and understood by the patient without in the least comprehending why. This instinctive selection is spoken of by Beale, in his work on renal disease, in alluding to that form of general degeneration of important viscera, hand in hand with each other, which is not uncommonly met with. This subject is one of the deepest interest to the profession. With our constantly increasing knowledge of the frequency of kidney-mischief entirely unsuspected by the patient, and perhaps not seldom by his physician, it is of the utmost importance to bear in mind the capacity, or rather incapacity, of the injured organs to meet the demands on them. Thus, when we detect the changes, we direct the necessary alterations in diet; but frequently an instinctive natural selection has determined the patient's choice spontaneously, and made him nearly independent of us. The consequence of this deprivation of azotised material is an impaired manifestation of vitality; or perhaps the general lowered vitality suggests the denial of this form of food: the condition is a complex one, but its action is directly preservative. In stomach or nervous affections, any liberty taken with the impaired organs is so quickly followed by unpleasant consequences that the sufferer generally avoids any trespass.

This subject is not one for mere curious speculation; in practice it guides, or should guide, us incessantly. In grave injury to any one part, irrespective of its function, in convalescence we usually take all pains, by food, fresh air, favourable moral and social influences, to improve the general condition, and thus the implicated organ; in fact, we strive to level up—to restore the general balance by means calculated to bring up the injured organ. But in a still more grave case, in time an alteration of tactics becomes inevitable, and we are obliged to adopt the alternative of “levelling down”—of so arranging that the general condition shall not tax the injured organ;—in fact, we try to attain a balance by reducing the general condition to the capacity of the injured organ. In all chronic cases, which must terminate fatally, this change of tactics is necessitated; and we all know with what humbled convictions we often have to announce our failure, and to demonstrate, more or less completely, to the patient the imperative necessity for the habits of the confirmed invalid. We have abandoned all hope of levelling up, and now resort to a levelling-down, as the only mode of existence per-

missible and compatible with life. This rule we all instinctively obey from the dictates of empiricism, but our practice will be more successful if illumined by reason. The treatment of convalescence may not be, if accurately examined, so flattering to us as we could like to imagine. A tedious convalescence may be, in many instances, a safer one than if it could be apparently expedited at the cost of a relapse. How often a relapse, from the general condition improving out of proportion to the injured organ, and thus throwing too much stress upon it, is induced by our precipitate attempts to conduct the convalescence to an early issue, it may scarcely be pleasant to contemplate! One marked case has made an ineffaceable impression on my mind. About a year ago I attended a young lady for an attack of acute nephritis, with dense albuminuria and general anasarca. Active purgation, the free use of the warm bath, and gentle diuretics were producing the most desirable amendment, and in the minds of the consulting physician and myself we were securing a most rapid and satisfactory convalescence. We permitted a moderately free use of animal food. One afternoon the patient felt so well, that she would sit down and write to the physician to thank him for his kindness, but in doing so she laid the task aside. She felt not so well; the bath was resorted to, and spontaneous active catharsis came on; but, in spite of all, uræmic coma appeared, then convulsions. I tried Dr. B. W. Richardson's plan of bleeding as a forlorn hope. All was in vain, and the patient was soon out of her troubles, leaving on my mind a most painful conviction that, if we had only remembered the function of the kidney and its duties, been more cautious in our treatment, and attempted a more gradual and guarded improvement, this unfortunate result might have been averted. There is no question that, the general health being good, and permitting food to be taken and assimilated, we overran the excretive power of the kidneys, and fatal blood-poisoning ensued. In convalescence we must, then, remember the function of the organ and its ability; and very often a disagreeably slow convalescence, in which our efforts are apparently futile, may be a slow and safe balancing of power and function, much surer than any rapid general improvement overrunning the organ and necessitating relapse. In our present determination in favour of levelling up, it is highly desirable to bear this in mind; and the difficulty of solving the complex problem in each case should stimulate us and not deter us.

Another very illustrative case, with a happier result, occurred in the hands of my friend Dr. Green, of Kendal. The patient spat up a large quantity of blood every second day. The effect of this was to keep him very weak, and to seriously alarm his friends. He was allowed large quantities of food to meet this drain; with the result that he grew gradually weaker. Dr. Green was then consulted, and laid down a rigorous starvation diet of skimmed milk. The hæmoptysis ceased, and a gradual convalescence set in, and now the dying man is as fine a specimen of an English gentleman as need be wished for. Here the supply of food and power of assimilation by leading to a rapid blood-manufacture produced pulmonic congestion, rupture of the vessels, and hæmorrhage. For these rapid oscillations, Dr. Green substituted a systematic lowered vital condition; for a time, he levelled down the system to the condition of the lungs, and the patient made steady headway.

We constantly make use of a partially lowered vitality in accordance with the individual necessities of cases. Thus, in cardiac debility we lower the activity and avoid strain, but allow any reasonable amount of food; in chronic kidney-disease exertion is in no wise injurious, but a limitation of food is necessary to reduce the amount of waste with due regard to the function of the kidney; in brain mischief we forbid thought: we lower the necessity for action on the part of the debilitated organ. In chronic phthisis, exertion, by making a demand on pulmonic function, is often followed by hæmoptysis or acute congestion. Dyspnoea is the guard which gives alarm in this case. Palpitation is the watchman in cardiac inability. Suffering is the monitor, and suggests the necessary quiet. Disease in organs not thus protected, as in kidney-mischief, atheroma, aneurism, etc., thus commonly results in sudden death. A lowered general vitality is frequently imperatively dictated by the physician, and not unfrequently spontaneously by the patient's sensations, and the instinctive action of self-preservation; and in the midst of this age of stimulants and tonics, of determined and persistent attempt to restore the disturbed equilibrium by improving the injured organ—of “levelling up”, we cannot afford to forget that there is a lowering process which directly tends to the continuation of existence in irremediable injury or protracted repair, that a species of balance by “levelling down” is directly preservative in many cases. If health consists in a balance of parts as regards power as well as function, it is obvious that a general lowering may be the only means by which this is attainable, and in many conditions we must admit the preservative agency of lowered vitality.

THE THERAPEUTICS OF HÆMOPTYSIS.

By G. GODDARD ROGERS, M.D.,

Physician to the Royal Hospital for Diseases of the Chest, etc.

DR. WATERS, of Liverpool, has contributed to the last number of the JOURNAL a very able clinical lecture on hæmoptysis. I gather from his concluding remarks on treatment, that he rightly, in my opinion, gives the preference to gallic acid, next to sulphuric acid, and, failing these, to acetate of lead. I am inclined to accept the correctness of Dr. Waters's observations on the unsatisfactory results which follow the use of digitalis in pulmonary hæmorrhage. The City Road Hospital *Pharmacopœia* contains a formula for its administration, but I have little doubt that to the combination of sulphuric acid and laudanum a great part of its popularity is due. Still, in hæmoptysis depending on a material obstruction in the left heart, I put great reliance on this drug. Dr. Waters closes his paper with an allusion to turpentine, and seemingly intimates that he has exhausted the list of styptics. Surely alumen exsiccatum and diluted acetic acid are worthy of a place. My note-books of cases in the Northampton Hospital contain plenty of instances in which these remedies solely used acted most beneficially. So long ago as 1858, I called attention to the very marked efficacy of the (so-called) tannate of alumina in spitting of blood. Dr. Bence Jones, during the time when I was Medical Registrar at St. George's Hospital, first brought it under my notice. I have never found occasion to look upon it as other than a most valuable styptic, and did space allow I could adduce several instances to prove this, both from hospital and private practice. Iron-alum, a sulphate of peroxide of iron and sulphate of ammonia or potash, is perhaps a still more powerful astringent. The dose as set down in the books is rather too large; it being better to begin with three grains than with five. Ruspini's styptic, although there is no mystery attaching to its composition, deserves a passing notice amongst the astringents of extraordinary power.

CLINICAL MEMORANDA.

OPHTHALMIA NEONATORUM.

It is generally stated in established works on ophthalmology, that the purulent ophthalmia of infants is caused in most cases by direct contact during birth with unhealthy vaginal secretions. A case occurred lately in my practice, which proved beyond all doubt that this is not the invariable cause of the ophthalmia. A lady was delivered by me of a female child, which was expelled with the bag of membranes unbroken. On the third day its left eye was violently inflamed, the lids being swollen and of a dark red colour, with a copious discharge of thin yellow pus. Here, then, was an instance of the disease in question showing itself in its most decided form, under circumstances which precluded all risk of contamination by the vaginal secretions.

Guildford, March 1871.

HENRY SHARP TAYLOR.

TRAUMATIC TETANUS TREATED WITH HYDRATE OF CHLORAL: RECOVERY.

HENRY H., aged 6, on October 23rd, caught his hand in a corn-crusher and sustained a compound comminuted fracture of the first phalanx of the little finger; the first phalanx of the third finger was also completely severed. He was treated at the time of the accident by a surgeon of the neighbourhood, and appeared to be doing well up to the third week, when the mother first noticed a peculiarity in the child's walking. By the evening, this had increased so much that he was obliged to be carried. On the following morning, he was unable to move. On Friday, November 17th, he came under my care. I found him in a complete state of opisthotonos, and suffering acutely. The abdominal muscles were rigid, and as hard as a board. The teeth were separated sufficiently to admit the handle of a teaspoon; the facial muscles were contracted; risus Sardonius was well marked; the bowels were constipated. He had no great difficulty in swallowing. He was ordered to have three grains of calomel, to be followed by a dose of castor-oil, and to take five-grain doses of the chloral hydrate every two hours till relief was obtained. After the second dose of the chloral he was easier, and the third dose sent him to sleep for a short time. The chloral was continued every three or four hours during the night. On the following morning the improvement was evident. He drank milk readily. The chloral hydrate was taken regularly; and on November 21st he was free from pain; the rigidity of the muscles was considerably diminished; and the mouth could be opened wide enough to admit the

bowl of the teaspoon. He could raise himself partially from the bed; and, on my entering the room, the little fellow greeted me with a genuine smile. He slept well, and took beef-tea and milk eagerly. The chloral was ordered to be continued in three-grain doses every four hours. On November 27th he was able to leave his bed; and on December 4th he walked into my surgery to have his fingers dressed, looking the picture of health.

Plympton, Devon.

GEORGE MILES, M.R.C.S.

NOTE ON TRACHEOTOMY IN CROUP AND DIPHTHERIA.

IN the JOURNAL for March 4th, Dr. Buchanan, of Glasgow, cites his latest experience of tracheotomy for croup and diphtheria by the brief narration of his thirteen last operations. In analysing these, we see that four were recoveries, three in diphtheria at the respective ages of seven, five, and eight, and one successful croup case, aged nine.

Of the nine unsuccessful cases, including the one operated upon for an impacted bone in the glottis, one was four years old, three were below and four above that age; in other words, all the cases operated upon of a less age than four years died, the recoveries occurring only in those older. Now this question of age with regard to the operation of tracheotomy in children for disease is a very important one; in fact, so important is it, that in the minds of many hospital surgeons the mere question of the age of the patient often settles the propriety or otherwise of opening the windpipe. It is considered that the operation should not be performed for croup or diphtheria under four years.

At the last meeting of the Pathological and Clinical Section of the Birmingham Branch of the British Medical Association, Dr. Underhill, of the Children's Hospital, exhibited several tracheæ after fatal croup and diphtheria; and in the discussion which ensued Dr. Russell most distinctly stated that, upon clinical grounds, he would not be a party to tracheotomy in a croup-suffering child under four years; and this dictum was assented to by the hospital surgeons present. Upon this point the collected experience of the various Children's Hospitals of the kingdom will be very interesting, and I trust before long to be enabled, in another communication, to lay the information thus obtained before my surgical brethren.

Perhaps Dr. Buchanan would say how his first twenty-six operations tell for or against what, as I venture to think, ought to be considered a surgical law.

VINCENT JACKSON,

Senior Surgeon, South Staffordshire General Hospital, Wolverhampton.

INVAGINATION OF THE LARGE INTESTINE.

ON July 12th, 1870, I was sent for to see an infant aged 4½ months, said to be suffering from "bloody flux", for which a practitioner had prescribed chalk-mixture. On my arrival, I found the child—a fine one for its age—in a state of semi-coma, almost pulseless, covered with a cold clammy sweat, and rejecting the breast-milk as soon as swallowed. The pupils were contracted. On questioning the mother, I found that, far from suffering from "flux", the baby had not had "a proper motion" for several days, although a little mucus tinged with blood was occasionally voided. On examination of the abdomen, I discovered a tumour, much resembling a small sausage in shape and density, occupying the left lumbar and inguinal regions, its upper extremity inclining towards the umbilicus. I administered an enema, which was immediately rejected, with a little slime and blood. I then ordered brandy—one drop in a teaspoonful of beef-tea—to be given every half-hour. This caused the child to revive slightly; but it soon grew worse, and died the next morning.

In the afternoon, I made a *post mortem* examination. The small intestines were distended with faecal matter and gas, and immediately puffed out as soon as the abdominal walls were laid open. The ascending and transverse colon were not to be found; but the tumour already mentioned was discovered to be in the descending colon, with its denser portion in the sigmoid flexure: the rectum was empty and contracted. The tumour consisted of a portion of the ileum, that had become invaginated into itself, passing through the ileo-cæcal valve, and dragging along with it the cæcum and its appendix, the ascending and the greater part of the transverse colon. The portion of ileum involved in the intussusception was perfectly solidified, and resembled a piece of muscle rather than intestine; it was quite impervious, and its extremity rested, as I have said, in the sigmoid flexure of the colon.

I very much wished to preserve the specimen; but the father so strenuously opposed my taking it away, that I was compelled to relinquish my intention.

W. T. GREENE, M.B.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE IV.—Friday, February 24th.

AMONG the Carnivorous Marsupials, the *Dasyurus* has two præmolars and four true molars; the *Phascogale* three præmolars. It might be supposed that the second præmolar of *Dasyurus* represented the third of *Phascogale*; but, in two species of *Phascogale*, the posterior præmolar is much reduced, and is evidently the tooth which disappears.

With regard to Dental Formulæ, Professor Flower said that he should adopt that which was most simple, and which represented the dentition in the two jaws on one side; the other side being the counterpart of this. The typical formula of *Diphyodonts* is $i \frac{2}{3}, c \frac{1}{1}, p \frac{4}{4}, m \frac{3}{3} = 44$.

MODIFICATIONS IN THE DIFFERENT GROUPS OF MAMMALIA.

In Man, the dental formula is, $i \frac{2}{2}, c \frac{1}{1}, p \frac{2}{2}, m \frac{3}{3} = 32$. The shape of the dental arch is very characteristic; it forms nearly a semi-circle. The teeth lie together without intervals, and are nearly of the same height. There is no marked difference in the two sexes, except that the teeth are somewhat larger in the male. The incisors are simple, single-rooted, and chisel-shaped. Their tops are nearly straight, the outer incisors having the corners slightly cut off. The upper incisors are larger than the lower, and the central exceed the outer ones in size. The canines are more massive and conical than the incisors; they are more or less pointed, and have longer roots. When the tooth is not much worn, there is a slight indication of the cingulum on the inside. The upper præmolars mostly have two roots, lying outwards and inwards; they are generally connate, but sometimes are a little separated, more frequently in the first præmolar than in the second. The crown is broad from side to side, with an inner and an outer cusp, of which the latter seems to embrace the former. In the lower præmolars, the root is apparently single. The crown has an outer larger cusp, and an inner smaller one, which increases from the anterior molar backwards. In the last præmolar, a transverse ridge passes from one cusp to the other—an indication of which is found in other animals. When the enamel is removed by means of a mineral acid, the cusps are seen to be formed of sharp points of dentine, and small accessory cusps may also be seen. The true molars are nearly equal in size, the first being the largest. As a rule, they have each three roots, one before, one behind, and one to the inner side, which do not often unite in a single mass. There are in the upper molars four main cusps, one at each corner; and on all well marked teeth a ridge of enamel extends obliquely from the anterior internal to the posterior external cusp. This is often less distinct in the second than in the first molar: in the last molar, the cusps are more blended together, and the ridge of enamel is scarcely perceptible. The first and second lower molars are nearly equal in size. There are apparently two roots to each tooth; but each of these consists of two connate portions. The crown has five cusps—an additional small cusp lying behind and rather to the outer side. The third molar has only irregular markings on the surface, instead of cusps.

The varieties of the teeth in the different races of Man are very small. The lowest races have larger teeth, especially the molars; but this is not universal. In some lower races, also, the two sides of the dental arch are comparatively parallel, instead of forming a curve. There is very slight difference in the canine teeth. The upper præmolars often have the roots divided in the lower races; and the wisdom-tooth is more developed in the Australian. Darwin has regarded the tendency of the wisdom-tooth to become rudimentary as a character of the higher races of Man.

The milk-teeth in Man are twenty in number, and form a perfect epitome of the permanent set. The canines are rather more pointed in proportion. The last milk-molar is a copy of the first permanent molar; but the tooth in front of it is neither molar nor præmolar in character. The first permanent molar appears before the replacement of the milk-teeth by the permanent set commences; and the last two molars do not appear until all the milk-teeth have been changed.

Simiina.—The Monkeys of the Old World have the same dental formula as Man. They are divided into two groups, the *Simiidae* and the *Cercopithecidae*. The *Simiidae* or Anthropoid Apes comprehend the *Troglodytes* (Gorilla and Chimpanzee), the *Simia* (Orang Otang), and the *Hylobates* (Gibbon).

The Gorilla, which is generally held to approach most nearly to Man, is an inhabitant of tropical Africa; and, according to Du Chaillu,

its food is exclusively vegetable. The number of the teeth is the same as in Man. Instead of forming a parabolic curve, they are arranged on three sides of a quadrangle—an exaggeration of the condition met with in the Australian. The canines in the male are much developed, less so in the female. There is a gap between the upper outer incisor and canine teeth, and one in the lower jaw outside the canines. The incisor teeth are larger in proportion than in Man, and project forwards. The canines are larger and more pointed, and are hollowed out on the inner side. The præmolars are larger in proportion to the molars than in Man. The upper præmolars are more equal in size, and have three distinct roots—with a tendency in the second præmolar to become connate. The upper true molars resemble those of Man. In the lower jaw, the middle are smaller than the outer incisors. The first præmolar has a strong cusp on the outer and a cingulum on the inner side: both præmolars have double roots. The three molars have always each five cusps.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 28TH, 1871.

GEORGE BURROWS, M.D., F.R.S., President, in the Chair.

ON SPORADIC CRETINISM OCCURRING IN ENGLAND.

BY C. HILTON FAGGE, M.D., F.R.C.P.

AFTER a brief reference to the occurrence of endemic cretinism in Somersetshire (as described by Dr. Hugh Norris, of South Petherton), the author described a disease of which a few scattered examples had been recorded, and which had been termed cretinism, but which differed in certain important respects from the endemic form of the disease. The features, Dr. Fagge said, in which this "sporadic cretinism" resembled ordinary "endemic cretinism," are the following. The body is exceedingly stunted; the hands and feet are short and broad; the face is broad; the eyes are widely separated by the flat roof of the nose; the alæ nasi are thick; the nostrils are rounded; the mouth is very large, and generally widely open. The lips are thick. Congenital "sporadic cretinism" is attended with deficiency in the mental powers, varying in degree, but very like that which belongs to the "endemic" disease. The child is quite free from the mischievous tendencies of the ordinary idiot. It is good-tempered, and appears to be pervaded with a placid contentment. It often sits for hours perfectly quiet, wherever it may be left, and it is disinclined to move of its own accord. Sometimes it walks only with the assistance of a chair, even after the age of puberty. It is not rarely deaf and dumb. In certain important respects, this disease differed from ordinary cretinism. In the first place, it is sporadic. It springs up, generally without apparent cause, in the offspring of healthy parents. Again, it is not necessarily congenital. In a case exhibited to the Society, it commenced at the age of eight years. Up to that time the patient, the daughter of people in comfortable circumstances, had been well developed. After an illness which was believed to be measles, she ceased to grow, and her bodily configuration underwent a complete change. Goitre is never present in "sporadic cretinism;" indeed, in the only two *post mortem* examinations (by Mr. Curling) as yet been made in such cases, no trace of the thyroid body could be discovered; and, so far as could be ascertained, the thyroid body was apparently absent in the four cases under Dr. Fagge's observation. On the other hand, there had been invariably present certain soft symmetrical tumours, lying one on each side of the neck, just outside the sterno-mastoid muscle. One writer had described these tumours as venous, and they had sometimes been supposed to contain the apices of the lungs, since a distinct respiratory murmur had been heard on auscultation over them. But Mr. Curling showed that they consisted simply of fat, not enclosed in a distinct capsule. Of the four patients recently under the author's observation, one (a girl, in whom the disease began at eight years of age) is now seventeen years old, and is 4 ft. 1 in. in height; another, a boy, is eight years old, and is 2 ft. 7½ in. high; a third, a male, about twenty years old, is 2 ft. 4 in. high; the remaining patient, a girl, is twelve years old, and 3 ft. 10½ in. height. The author commented on certain peculiarities in the relations between endemic cretinism and goitre. Goitre is endemic in many parts of England where cretinism is unknown. Goitre is the earlier effect of the endemic influence; cretinism shows itself when that influence has been intensified by operating on more than one generation. The worst cretins have not invariably, however, very large goitres; they have often no enlargement of the thyroid body. These considerations appear to prove that there is a certain antagonism between the two phenomena. A large goitre may possibly have the power of protecting the individual

against the more severe effects of the endemic influence. The most careful investigation has failed to show, either in the air, the water, or in the soil of Alpine valleys, the presence of any element which is absent where cretinism does not prevail. Hence, it would not be improbable that the cause of cretinism prevails much more widely than the disease itself, although, doubtless, with an intensity varying in different localities. The author thought that to counteract this cause in its slighter degrees might be one of the functions of the healthy thyroid body. If this were so, one could see why wasting of the thyroid body should, in England, produce a form of cretinism.

Dr. LANGDON DOWN had brought some very similar cases before the Pathological Society. In all the instances which he had observed—twelve in number—there were the tumours in the neck, which he had called venous. In no case was there a goitrous ancestry. He did not think that there was such a marked difference between the conditions described and idiocy as had been pointed out by Dr. Fagge. Many idiots had what he termed the Mongolian aspect, like cretins; but they differed in not being stunted in growth and in not having the vascular tumours in the neck. Among 1,500 idiots who had come under his notice, two only had goitrous ancestors.

CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 24TH, 1871.

W. W. GULL, M.D., F.R.S., President, in the Chair.

MR. GANT read a paper on the Occlusion of Arteries after Operation, and said that the primary object of this paper was to lay before the Society the author's observations on the process of occlusion in arteries after acupressure, with the view of supplying some guiding knowledge or indications as to the proper period for the safe withdrawal of the needle, without the occurrence or supervention of secondary hæmorrhage. This, although an inferential method of investigation, was obviously a more safe method than submitting living patients to the risk of removing the needle experimentally, in order to gain the requisite practical knowledge by experience. The process of occlusion would appear to consist essentially in the formation of a conical clot of blood, which soon became fibrinous and adherent, so as to securely plug the artery upwards from the transverse line of acupressure; but this was not accompanied or followed by any deposition of lymph and adhesion of the coats of the artery at the said line, the arterial tunics remaining undivided by the compression temporarily applied. Compared with ligature and torsion respectively, the efficacy of acupressure relied solely on the first provision for the arrest of hæmorrhage, when the surgical appliance, the needle, was withdrawn. In relation to treatment, a firm, fibrinous, and adherent clot-plug having been found to have formed within five days, in a main artery (the femoral), that period would appear to offer a perfectly safe opportunity for withdrawing the needle. Ligature and torsion might, however, be not less securely effectual than acupressure in regard to the non-occurrence of secondary hæmorrhage; but, as to primary union of the flesh-wound, and also as to the prevention of pyæmic infection, torsion had the advantage of not inducing sloughing of the end of the vessel, as ligature did; and it was superior to either of the other methods of treatment in not leaving any foreign body in the wound, for however short a period, to possibly provoke suppuration.—In answer to Mr. Callender, who asked whether the clot was limited by collateral circulation above or because of the acupressure, Mr. GANT replied that the condition was due really to the fact that the artery was not completely occluded, and hence the larger clot.—Mr. ARNOTT had ascertained that the distal end of the ligatured artery became part of the tissues. The belief that it sloughed was surely not correct, when one considered how slight the suppuration sometimes was.—Mr. GANT believed that the end of the artery sloughed.—Mr. BARWELL remarked that, in his experience, not in two cases in fifty, much less two in eleven, as Sir James Simpson had stated, did secondary hæmorrhage take place, if that meant bleeding from the ligatured artery.—Mr. BERKELEY HILL made a few remarks on the rapidity with which fibrine was thrown out at the closed end; it was really the stopper of the artery. He shewed a specimen in illustration.—Dr. ANSTIE asked how the material of the plug was to be distinguished from transformed blood.—Mr. GANT was not aware that any lymph was effused.—Mr. J. W. HAWARD believed that pyæmia did not depend upon the way in which the artery was closed.—Mr. HULKE said that his experience was small, but he had had more secondary hæmorrhage after employing this method than after the ligature. He had had more than two cases of pyæmia. He was in doubt how long to leave the needle in.

Dr. BROADBENT read notes of a case of Paralysis of the Ophthalmic and Superior Maxillary Divisions of the Fifth Nerve, of the Fourth

Nerve, and of the Branch of the Third to the Levator Palpebræ on the right side, from Syphilitic Disease at the base of the Cranium. The interest of the case consisted in the rarity of paralysis of the fourth nerve, and in the illustration of anatomical diagnosis furnished by the simultaneous implication of this nerve and of the two upper divisions of the fifth. The patient, a farrier, aged forty-one, became an out-patient at St. Mary's Hospital on May 9th, 1870. He had been ailing for eight months, and under treatment nearly all that time. At first, he had had pain in the right side of the head, worse at night, and for four months had had loss of sensation in the right side of the forehead and face, together with ptosis and double vision. The skin of the entire region of distribution of the ophthalmic and superior maxillary divisions of the fifth nerve was insensible to all kinds of impressions. The eyelid could be raised only to a slight extent by the action of the occipito-frontalis. But, though double vision was very marked, there was no perceptible squint, and the pupils of the two eyes were equal. On more careful examination, it was found that the two images were not on the same level, one being below and to the right of the other; and subsequently, by causing the patient to look at an object in various ways, so that the eyes were successively directed upwards, downwards, to the right, and to the left, it was clear that the double vision was due to paralysis of the fourth nerve. The two images receded when the eyes were directed downwards, and approached each other when they looked upwards; the pseudo-image going far to the right but coming to near the level of the image proper when the patient looked to the right, and lying immediately beneath it when he looked to the left. There was no acknowledged syphilitic history, but the sallow earthy complexion of the patient, a tubercular eruption near the right eyebrow, and facts in his family history, were considered conclusive as to the syphilitic origin of the disease, and iodide of potassium was given in doses of six grains, quickly increased to twenty grains, the result being rapid disappearance of all the symptoms. The lesion was considered to have been a node or gummy tumour of the fibrous structures surrounding the ophthalmic and superior maxillary divisions of the fifth nerve, in that part of their course between the Gasserian ganglion and the exit of the latter division through the foramen rotundum. Here the fourth nerve lies close to the ophthalmic and sometimes joins it, so that a single lesion would cause the loss of sensation and the double vision; it did not, however, appear how it could give rise to the ptosis.—Mr. CARTER alluded to the great distress experienced by patients in whom the oblique muscle was paralysed. It was desirable to use prismatic spectacles, pending the effect of iodide of potassium. It had been shewn that lesions of the cornea only followed lesions of the internal portion of the nerve-trunk.—Dr. BUZZARD had seen many cases in which no history of secondary syphilis had been obtained, and yet they were syphilitic. He had frequently seen a recurrence after the remedy had been omitted for some time. He wished to know if any benefit was to be obtained by giving mercury with it.—Mr. ERNEST HART said that it was precisely the paralyzes of nerves in syphilis which were eccentric and specially localised, and such cases might from that symptom be expected be syphilitic. Absence of a syphilitic history was common. He thought the best and speediest results were obtained by very large doses of iodide of potassium. Mr. Hart also referred to the valuable aid derived from prismatic spectacles.—Mr. HULKE agreed as to the frequent absence of syphilitic history, and the tendency to recur; and alluded to a case in which paralysis recurred five times in four or five years. It was a rough test in paralysis of the oblique muscle to make the patient close an eye to find out which was affected.—Dr. LOCKHART CLARKE remarked on the large number of cases in which no secondary symptoms of syphilis occurred.—Dr. ANSTIE wished to know if the members had observed the coincidence of tertiary ulcerations of the mouth. There was, he thought, a connection between these, and a tendency to recurrence in syphilitic paralysis of cranial nerves.—Mr. J. W. HAWARD related a case in which the paralysis was due to periostitis.—The PRESIDENT said that symptoms of skin-affection were often absent, but the bones were often attacked though the patient was scarcely aware of it. The whole nutrition in syphilis was altered, and further, there was often in persons affected by this disease a peculiar smell of the perspiration, by means of which he had often recognised cases of syphilis. He thought we should be able to recognise syphilis apart from the skin- or bone-affections.—Dr. BROADBENT, in reply, agreed that there was an absence of secondary syphilitic history in many cases, especially of skin-eruptions; besides, hereditary syphilis furnished a considerable number of examples of the disease, as also women through bearing children rendered syphilitic by the father. He had often diagnosed syphilis by the aspect, but had not observed any smell. In two cases, however, in which there was hemiplegia, he had been struck by a smell. He had found the tendency to relapse. He gave the iodide of potassium in doses at first of five or

six grains, increasing the quantity till forty, fifty, or sixty grains were taken if necessary. He had not found it necessary as a rule to give mercury. He had not observed the coincidence as regarded the ulcers of the mouth: he thought that these belonged to a different stage. The discharge from the nose he believed to arise from the same cause as the paralysis of the nerves.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MARCH 7TH, 1871.

J. HILTON, Esq., F.R.S., President, in the Chair.

MR. MARCUS BECK exhibited a rare specimen of Spindle-celled Sarcoma affecting the posterior Tibial Nerve, taken from a male aged 32. The growth was of four years' duration. The leg was removed in the belief that the affection was malignant disease of the tibia.

Dr. GREENHOW showed a specimen of Epithelial Cancer of the Œsophagus opening into the trachea. The feature of clinical interest in the case was the occurrence of frequent attacks of dyspnoea, ending by expectoration of lumpy matter.

Mr. WEEDEN COOKE brought forward a specimen of Medullary Cancer of the Cranial Bones associated with Scirrhus of the Breast, and a case of Scirrhus of the Brain associated with Scirrhus of the Breast. There was a history of tuberculosis in both families. He believed that cancer and phthisis were interchangeable.—Mr. ARNOTT asked whether, if the primary disease is epithelial, the secondary is not the same. Some said that the secondary deposits were all like each other, of a medullary character.

Dr. DICKINSON showed a Mesenteric Tumour from the body of a child two years of age. It was an enlargement probably connected, he thought, with the mesenteric glands. It weighed two pounds five ounces, and occupied the whole left side of the abdomen. It was composed of an embryonic form of areolar tissue, of hard fibroid tissue highly nucleated, and partly of cartilage, with a mucous fluid, not albuminous, but like myxomatous fluid.—Referred to Committee.

Dr. DICKINSON also exhibited sections of the Spinal Cord, representing changes found in Tetanus.

Dr. WHIPHAM brought forward a specimen of Dissecting Aneurism of the Aorta, which was chiefly enclosed in the pericardium. The patient had presented very slight symptoms.

Dr. HAWKES (Hanwell) brought forward a specimen of Rupture of the Aorta with diseased heart, and a Tumour of the Brain. There were remains of an old apoplectic clot in the posterior hemisphere, and a mass in the left corpus striatum. The tumour was supplied by an artery of the size of a crow-quill. The patient had been admitted for mania and epilepsy.—Dr. DICKINSON thought the mass either a transformation of a clot or an aneurism.

Dr. THEODORE WILLIAMS exhibited a specimen of Aneurism of the transverse and descending Aorta bursting into the Œsophagus. It was about the size of a sixpenny-piece. It was taken from the body of a man aged 38.

Mr. HENRY MORRIS showed for Mr. SHOUT of Petworth an Aneurism of the Abdominal Aorta, bursting behind the peritoneum above the celiac axis on the first occasion, and in the second place into the peritoneum itself. The right half of the abdomen was occupied, and pulsation was everywhere felt during life. Two pounds and fourteen ounces of clot of various ages were removed. The specimen was taken from the body of a man aged 41, an old soldier. There was extreme emaciation.

Dr. DOUGLAS POWELL brought forward a case of Dislocation of the Axis from Caries and Rupture of the Transverse Ligament. The odontoid process of the axis pressed on the cord, but there were no signs of inflammation. The patient died suddenly.

Mr. SPENCER WATSON showed a Spindle-celled Sarcoma removed from the leg by Dr. Walker. It had recurred four times. Previous specimens from the same patient had been shown at the Society by Mr. Watson. There had been hæmorrhage in the tumour.

MEDICAL SOCIETY OF LONDON.

MONDAY, FEBRUARY 20TH, 1871.

JOHN GAY, Esq., President, in the Chair.

MR. J. D. HILL showed a patient on whom he had performed Pirogoff's Amputation of the Foot six months ago. The man could now walk well, and had a good stump.

MR. SPENCER WATSON described two cases of Cataract. Case I was that of a woman 82 years of age, whose sight had been failing for many years. The capsule being found at the time of the operation exceedingly tough, and the suspensory ligament of the lens being weak, the

lens was removed in its capsule. No vitreous humour escaped, and excellent sight was obtained. The fluid cortex of the lens allowed the dark-brown amber nucleus to be seen moving about within the capsule. A second similar cataract had been removed from a man aged 55, who had up to the last year or two been able to see well with the aid of biconcave glasses, notwithstanding the clear indication of cataract afforded by the ophthalmoscope and by focal illumination. The capsule and nucleus were shown. It was agreed that Mr. Hogg, Dr. Dempsey, and Mr. Watson, should examine the fluid in the two cases and report thereon.

Dr. CRISP exhibited some specimens of Inflammatory Croup. Two wax casts were shown, and also a specimen of the trachea and larynx of a child 18 months old affected with croupous deposit of false membrane.

Mr. HENRY SMITH stated to the Fellows that the patient in whose rectum a fragment of Glass-Speculum had lodged in consequence of the fracture of the instrument, had suffered no evil effects, and Mr. Smith was satisfied of the fragment having come away by the bowel.

Dr. PROSSER JAMES read a paper on Chloral Hydrate. The author confined himself to a relation of his own clinical experience of the effect of the drug. When chloral first came into notice as an hypnotic, Dr. James made use of it to see how far it would prevent sea-sickness. One person, who was a very bad sailor, took one scruple of chloral before crossing the Channel; and, though the passage was long and rough, he escaped all sickness. In the case of an invalid who took the chloral, the effect was equally satisfactory. Dr. James believed that a full dose of the drug taken before leaving the harbour was about the best method of employing it as a preventive of sea-sickness. Orange-flower water seemed the best vehicle to disguise the flavour of the chloral. A case was given where dangerous after-effects followed a half-drachm dose of chloral. This dose was given to a young lady in great pain from neuralgia. She had the best night's sleep she had known for months; but next day the pulse and temperature fell in an alarming way, and she refused again to have recourse to the chloral, even though the neuralgia returned severely during the night. In the case of a lady who suffered with dysmenorrhœa, and where digital examination was extremely painful, Dr. James gave two scruples of chloral; in a quarter of an hour she was asleep. A complete examination was then made with the uterine-sound; a laminaria-bougie was introduced without waking her, and in time she was quite cured. In conclusion, Dr. James said that, while his experience taught him the necessity of care in the use of chloral, yet for one case where its action was unpleasant he could quote fifty where it succeeded well.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, FEBRUARY 18TH, 1871.

JAMES STANNUS HUGHES, M.D., President, in the Chair.

DR STOKES, Regius Professor of Physic in the University of Dublin, presented a most interesting case illustrative of some obscure points in the diagnosis of Cardiac Disease. The patient was a man aged 31, who six years ago was admitted to the Meath Hospital suffering from "heart" disease, most probably from pericarditis. At the time of his second admission, a short time ago, he was the subject of general anasarca. On physical examination, the liver was found to be much enlarged, its lower edge being felt just above the crest of the ilium. But the most striking physical signs were met with in connexion with the heart. At its base a double murmur was audible, of which the first part was systolic, and the second corresponded with the diastole. This bruit became fainter when traced towards the apex, but at this point it was again distinctly heard. Besides the double basic murmur, a loud *frémissement* existed at the base. This sign disappeared at a subsequent period, but only to return. There was visible pulsation in the carotid alone, and the pulse partook to some extent of the characters of the collapsing form. Here then were all the usual signs of aortic patency, together with the basic *frémissement*, and a second double murmur at the apex. Dr. Hayden, who was asked by Dr. Stokes to see the case, suggested that the lesion was aneurism of the right ventricle. After death the left ventricle proved to be much hypertrophied, the aortic valves were found perfectly competent, though somewhat thickened; and a true aneurism sprang just above the origin of the aorta. The tumour was intrapericardial, and from the sac a fistulous passage led into the cavity of the right ventricle. There was, in fact, a varicose aneurism. The *frémissement* was now explained—its disappearance Dr. Stokes regarded as due to a temporary plugging of the fistulous openings. Cyanosis was never present, though before death the patient's aspect became unusually livid. Dr. Stokes mentioned that this was the second instance in his experience in which an aneurism springing in the neighbourhood of the sinuses of Valsalva had perfectly simulated the comparatively common disease, permanent

patency of the aortic valves.—Dr. HAYDEN stated that his diagnosis was founded on the following considerations. First, the murmur of exit possessed a peculiar character, one never remarked in simple valvular disease. It resembled the sound caused by the entrance of fluid into a resounding cavity, and might best be described by the word “splashing”. Secondly, this murmur was not transmitted into the carotid vessels.

Mr. R. ST. J. MAYNE, in the unavoidable absence of Dr. Macnamara, exhibited the Hand and Forearm of a man, which had been injured by an Explosion, and had been amputated in consequence of gangrene setting in. The ulnar side of the hand had been extensively lacerated. The consequent hæmorrhage was but slight, and there were no considerable constitutional symptoms. The operation performed was a modification of Teale’s, as recommended by Mr. Wharton.

Mr. MAYNE likewise showed the Sternum and Costal Cartilages of a man who had been stabbed in the chest, and had died in consequence of a violent attack of pleuritis determined by the injury. A punctured wound of the costal cartilage of the fourth rib, engaging the corresponding intercostal artery was found. The pleura was filled with serous fluid and uncoagulated blood. In the *Dublin Quarterly Journal*, vol. xi, two cases of a similar injury have been recorded by Messrs. Wharton and Hamilton.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS, IRELAND.

WEDNESDAY, FEBRUARY 15TH, 1871.

THOMAS E. BEATTY, M.D., Vice-President, in the Chair.

Dr. WILLIAM MOORE made a communication on the subject of Stimulation in Fever. The author read the notes of twenty-seven cases of typhus and enteric fevers, giving the salient points in each, and stating the amount of stimulants administered. He called particular attention to the existence of a severe form of delirium as marking the intensity of the fever, and as indicating the necessity for a free exhibition of stimulants.—Dr. GRIMSHAW objected to conclusions being drawn as to the value of a particular line of treatment from limited statistics, and referred to the writings of Dr. Russell, of Glasgow, which he considered as among the most valuable contributions recently made to the literature of the profession.—Dr. CAMERON, City Analyst, speaking from a chemico-physiological stand-point, urged the importance of alcohol as a source of motive power in the system, and made mention of the experiments of Dupré and of Thudichum.—Dr. H. KENNEDY deprecated the adoption of any uniform plan of stimulation in fever, and said that he was in the habit of treating cases, even severe cases, of fever absolutely without stimulants. He attached considerable importance to the condition of the pulse as a guide in the employment of wine, etc.—Dr. DARBY, of Bray, made some observations on the necessity, *quoad* treatment, of clearly distinguishing between the two forms of fever, typhus and typhoid.—Dr. MOORE having replied, the meeting adjourned.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, FEBRUARY 3RD, 1871.

ALBERT J. WALSH, Esq., President, in the Chair.

Mr. WILLIAM STOKES described a modification of Jarvis’s Luxation Adjuster, which had been devised by Messrs. Robert and Collin, surgical mechanicians of Paris. He also read reports of four cases of dislocation which he had successfully treated by means of this instrument. The first was a luxation of the right humerus into the axilla. It was reduced, without chloroform, in less than a minute. The force used did not quite amount to one hundred pounds. A similar dislocation, occurring in a strong muscular man, was reduced (more than twenty-five hours after the injury had taken place) immediately, the force used being one hundred and eighty pounds. In this case it was found necessary to change the direction of the force twice by rotating the instrument. The third case was that of a lad, 11 years of age, who was suffering from dislocation of both bones of the right forearm backwards at the elbow. The force used was one hundred and one and a quarter pounds, and the reduction was accomplished under two minutes. In the fourth case, twenty-four days had elapsed from the receipt of the injury to the time of the patient’s admission. Luxation of the right radius and ulna backwards at the elbow had occurred. Two attempts were made to effect reduction; the first, on September 20th, being only partially successful; and the second, four days later, completely so, the force employed amounting to as much as one hundred and eighty-nine pounds. In three other cases the instrument failed to cause reduction, they being all luxa-

tions of the head of the humerus, two forward, and one into the axilla. The advantage over other mechanical means enjoyed by Robert’s instrument consists in the operator not being restricted to fixed points in the reduction of dislocations.

Dr. CHARLES F. MOORE read a paper on the connection between certain defective Sanitary Conditions and the existence of Disease. He alluded to the great difficulty frequently experienced in ascertaining the cause of what is often termed “preventable disease.” The necessity for securing good ventilation was insisted on. In the author’s practice, a fall in the rate of respiration had taken place on improving the ventilation of a large chamber in which lay a case of fever. As illustrative of the effects of errors relating to drainage, cases were mentioned showing the serious consequences of “scamping” as pursued by some workmen; again, typhus of a malignant type occurred in a house, next the wall of which stood a badly constructed latrine. Among other agencies in the production of disease, relative lowness of site, and other obstructions to ventilation, were referred to. A case in which corrosion of the leaden trap of a water-closet had permitted the escape of various sewer-gases was also detailed. The corrosion of the metal was due to the combined action of carbonic acid and sulphuretted hydrogen.

Dr. EDWARD HAMILTON communicated reports of some cases of Skin-Engrafting or Transplantation. In practising the operation, he first brought the ulcers to a clean and healthy state by repeated poulticing. He then stripped up small portions of sound skin with a forceps, removed them, and inserted them into the ulcer. He deemed it advisable, indeed necessary, to include the deeper part of the epidermis, that containing the young epidermal cells, in order that the ulcerated surface should take on the skin-forming tendency. A patient, in whose case the operation promised to be very successful, was present. He was a young man with an ugly ulcer on the leg, and in it two or three small islands of skin-growth appeared as the result of engrafting.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, MARCH 1ST, 1871.

JOHN ED. MORGAN, M.D., Vice-President, in the Chair.

Recovery from Fracture of Skull.—Mr. STOCKS presented a case. The patient, an agricultural labourer, aged 19, had been kicked by a horse on August 24th, and received two wounds—one on the right parietal bone and the other just below the occipital eminence. The bone was comminuted, and some cerebral substance was lost. The patient was insensible for some days, and was subsequently found to have hemiplegia. A fungoid protrusion of the brain occurred, but gradually disappeared. Several pieces of bone were also removed, and a hole was left extending into the cranium, and capable of holding nearly six drachms of fluid. The symptoms quickly abated, and the patient quite recovered. A deep depression existed over the seat of both wounds.

Sudden Gangrene of the Leg.—Mr. LUND read a paper on a case which occurred in a man aged 35, by trade a picture-frame gilder, but who was not exposed in his work to the fumes of mercury, nor had he been the subject of syphilis, rheumatism, or chronic intemperance. The only predisposing cause for the attack was exposure to cold about fourteen days previously. He had bathed in the sea twice on the same day, and had then come by railway to Manchester, and felt chilly and cold. About four days after this he was at a review, and was drenched to the skin by the rain, and remained for some time in his wet clothes. He felt ill, without any special symptoms, until the moment of the attack. This came on quite suddenly on awaking out of a sleep of two hours’ duration. The left foot and leg felt benumbed and cold; then the surface became very painful and sensitive; and at last all sensation ceased; the temperature fell, and a gangrenous state of the leg and then of the foot was established in about forty-eight hours. On his admission into the Infirmary, a line of demarcation had just formed near to the knee; and, as it remained stationary for twenty-four hours, Mr. Lund amputated the thigh in the upper third. The patient sank from exhaustion in twenty-six hours. Previously to the operation, the femoral artery had been observed to be slowly filling with coagulum to within a short distance of Poupart’s ligament; and in the operation not only were the smaller arteries also blocked, but the track of the vessels presented a greenish tint in the cellular tissue of the sheaths, indicating an altered state of the blood in the capillary net-work of the vasa vasorum. As to the pathology of the disease, Mr. Lund was of opinion that acute arteritis had been set up by the exposure to cold, and that this had determined local coagulation of the blood; and that it was not a case of occluded artery from a floating particle of coagulum from a distant part. No coagula were found in the heart or any of the vessels, except those below Poupart’s ligament; and, with the exception of a small atheromatous patch on the aorta, the arterial system was perfectly healthy.

THE Subscriptions to the Association for the year 1871 become due in advance on January 1st. All which are not already paid, should be forwarded to the General Secretary, Mr. T. Watkin Williams, 13, New Hall Street, Birmingham; or to the Secretaries of Branches.

BRITISH MEDICAL JOURNAL.

SATURDAY, MARCH 18TH, 1871.

BLOOD-LETTING.

WHEN Dr. Fordyce Barker returned a few months ago from his autumn holiday, he was called to a patient who appeared to him to require venesection. Having scarcely got into his harness, he had no lancet at hand, and went to a neighbouring surgical instrument-maker's to buy one. He was answered by a regret that there was not such a thing in the shop. The British shopkeeper is too tenacious of old stocks for a similar disappointment to occur here; but few of us probably have failed to see, in country journeys, the natty hereditary lancet-case gutted and filled with cigar-lights, and to have moralised thereon, if given to Jacques's mood. Is it wise to sail along with the strong tide of popular prejudice so completely as such instances show that we are doing? Should we pronounce an eternal divorce between "blood and iron", because their too intimate intercourse of old was dangerous to us? What we have learnt from the experience of the last few years is, that a great number of cases which our predecessors thought and taught would die without blood-letting, may be spared the operation and yet live; and also, that many of the severe symptoms and risks in these cases were in reality the symptoms and risks arising out of loss of blood. The value of such knowledge is inestimable—greater than has been contributed by any experience of the last two centuries; but, like all good things, it is capable of being misapplied. It is certainly a misapplication to infer that because to a certain set of cases, united under a common name, blood-letting is injurious, therefore each individually is better without it. And it is a still worse misapplication to condemn a treatment as doing no good because it does some harm, or to assume that the harm outbalances the good. *Imprimis non nocere*, like all proverbial morality, is a maxim oftener used to justify the coward than to guide the conscientious. The experience is gained now; the experiment is tried; and it is time to begin to draw some practical results out of it. If we do not, it will probably be tried all over again, by a senseless reaction in favour of what we are now rejecting.

Many of those who habitually practised blood-letting as a daily means of cure in the last generation were careful and shrewd observers, as is shown by their writings; and it seems scarcely possible that such men should have been utterly mistaken in assigning advantages to this powerful means of modifying vital actions. It would be more reasonable to conclude that the advantages must be very great to have blinded their eyes to the accompanying evils.

The operation has in itself much to recommend its use. It is capable of immediate application; the effects follow quickly, and to the eye of the physiologist are invariable and certain; it is more completely under our control than any other therapeutical measure, and is capable of accurate graduation in amount. This is enough to make the detraction of blood a thoroughly scientific proceeding. Let us review the facts on which its general employment was grounded. Let us try to enter into the minds of the great blood-letters, in place of continuing to condemn, unexamined, the staff on which they leant. Physicians observed of old, and continued to observe for many centuries, the following facts concerning blood-letting.

1. *It gave relief to pain.* And the more dangerous to life the painful disease was, and the quicker its progress, as in cases of pleurisy, peritonitis, and other inflammations of serous tissues, the more immediate and complete was the relief.

2. *It diminished swelling.* This was a simple mechanical truism.

3. *It diminished local redness or congestion.* And for some time the blood did not collect again; and, if it did, was capable of being again reduced. In a great many cases, the patient recovered before a repetition of the remedy was required.

4. For a short time after bleeding, either local or general, *abnormal heat was sensibly diminished.*

5. After bleeding, *spasms ceased*, whether they were joined to, or independent of, the symptoms above enumerated.

6. If the blood could be made to run, patients were roused up suddenly from the apparent death of *coma*. (This was puzzling to those who regarded spasm and paralysis as opposite states; but it showed the catholic applicability of the remedy.)

7. *Natural* (wrongly termed "accidental") *hæmorrhages were observed sometimes to end disease.* This is a stronger point than our forefathers seem to have made it.

8. At the same time, it was obvious that artificial loss of blood was equivalent to, and might replace, the spontaneous, because *venesection would cause hæmorrhages to cease.*

It may be noticed that in the first four conditions, to which separately blood-letting contributed alleviation, by inducing, or tending to induce, an opposite condition, are united the characteristics of what was called "inflammation", and of which there was a great dread. Anything which would lessen inflammation would give the patient a better chance of life. It was certain that blood-letting lessened some, at any rate, of its characteristics.

Now, surely, here is a very strong case. It convinced a considerable number of shrewd observers of symptoms at all times, from Galen downwards; and the bulk of the profession logically followed the lead of those most capable of a decided opinion. There were, every now and then, some weak objectors, of whom in his time Galen gives an amusing account; but they seem to have had little to say for themselves; nor, indeed, could they have had, for till very recently there was in existence not enough physiological knowledge to put any limitation to blood-letting on a reasonable basis. They offered just the same sort of protest that homœopathy does against rational medicine: "Your rules of action are not infallible." The answer of course is, "We never said they were; but they are the best that are to be had." Our grandfathers' lancet had the same justification of experience in the symptoms of disease.

Whence, then, the sudden collapse of the arm in which we trusted? The first cause was the discovery, by thoughtful men, that the classification of disease according to its symptoms is a bad therapeutical classification; and, secondly, that the classification, according to the parts where it leaves its traces after death, is still worse. It was found out that, if no patients were bled at all, more recovered than if all those were bled who had the collection of symptoms whose union gave certain names to diseases seen by experience often to justify venesection. It was found out still more quickly that, if no patients were bled at all, more recovered than if all those were bled in whom sundry morbid changes of special parts were discovered. Defined either by a symptomatic or an anatomical nomenclature, every class of disease, in which bleeding was put through the test of experience, was injured by it.

Then there came a reactionary feeling about inflammation. It had been looked upon as a terrible and violent development of morbid force, to weaken which it was worth while to make almost any sacrifice of the invaded body's resources. Physiologists examined into the pretensions of this alarming enemy, and began to doubt, went on doubting, and are still doubting daily more and more, whether each one of its characteristics separately be not a phenomenon of weakness instead of strength. Like all panic-struck people, we have all at once become exceedingly bold, pronounce the source of our previous alarm a mere bogie, an *idolum fori*, and say we shall get out of its way no more. We let it quite alone, to bluster as it will; we sit by and look on. The danger is that, when we begin to think that there is something in it after all, we shall again employ, in the old method, our disused weapon.

The remedy for this state of things is, first, for therapeutical purposes, always to look at disease, and to classify it, from a biological standpoint. In this particular instance of blood-letting, for example, we must cease to reckon the case as one of "puerperal convulsions", or of "pneumonia", or of "enlarged heart": we must consider what special circumstances there are which blood-letting might be expected by a physiologist to modify. We may reasonably call upon new instruments of precision, such as the sphygmograph, to afford valuable aid. It makes clear and measures just those mechanical conditions of the circulation which a mechanical operation, such as the taking away blood, may be looked upon as likely first to affect. Then there are the observations of several physiologists on the connexion between the nervous system and the circulation, which have not yet been attempted to be utilised for therapeutical purposes, such as those of Waller, Claude Bernard, Brown-Séquard, but above all those of Messrs. Legros and Onimus. The part of the circulation the most important to the life of the individual is probably the peristaltic wave, which carries on the blood in an even stream through the muscular arterioles, and which Messrs. Legros and Onimus describe as closely resembling the motions of the alimentary canal. Still more than the intestinal movements does this peristalsis appear to be under the control of the nervous system; and for that reason it is open to be modified and regulated at will by artificial reagents of all kinds without difficulty. Is it not this wave which is arrested by sudden concussions and shocks to the nerve-centres? And may we not expect that, in certain circumstances, a mechanical countershock to the circulation may set it in motion again? Emptying the veins is, in point of fact, abnormally clearing the way for an abnormally weakened blood-stream; and there must be cases in which that will constitute the turning-point of life or death. The old bleeders had not the knowledge and appliances which could enable them to distinguish these cases from the whole lot massed together under the same name. We have some which we ought at any rate to try to turn to this desirable purpose.

Besides the more accurate science of the circulation which has grown up since the disease of bleeding, there is much recent chemistry of the fluids to be utilised. We know well that bleeding alters most notably the proportions of the constituents of the blood. We have been teaching our students for years to hurl in its teeth accusations of diminishing the number of the red discs, augmenting the water, fibrin, etc.—changes which, truly enough, we desire, for their own sake only, most exceptionally. Shall we suppose that it cannot alter the blood for good as well as for evil? We have lost our faith in general plethora on just grounds; but still we have learnt, though not in time to profit by the experience of the blood-letting era, that some component parts of the circulating fluid, normally present only in the minutest traces, may exhibit themselves in monstrous excess. For instance, we have become familiar with uræmia, and we know that its sudden supervention, or increase, produces many of the symptoms formerly benefited sometimes by venesection. Is it not possible that detracting a quantity of poisoned venous blood may remove so much poison from the nervous system as to save life?

Again, having gained a clue to the mechanism by which hæmorrhage in one part puts an end to hæmorrhage in another, is it not wise sometimes to substitute a loss of blood, which we can measure and control, stop with a finger and let out again when we like, for a loss of blood in an invisible locality, to know the extent and duration of which is impossible?

Allowing, then, as we do, that to take blood in cases of puerperal convulsions, of apoplexy, of pneumonia, of hæmorrhage, etc., *because* they are puerperal convulsion, apoplexy, etc., is wrong; still, let us not cease to search for those cases, however small a minority they may constitute, where the striking benefits resulted which made our fathers bleed; and let us employ in the search the additional biological knowledge and instruments of precision not possessed by them. We shall be able to do this the more coolly for getting out of our heads the old dread of "inflammation" as the dangerous point in disease, and the idea of using blood-letting to diminish the danger by diminishing the *tumor, rubor,*

dolor, et calor. As to hæmorrhage, also, we can utilise the experience of the last few years to teach us how many hæmorrhages of alarming aspect there are which spontaneously cease, while others lead us, by their results, to regret that we had not some immediate means of checking them at hand. Now, if ever, while there is a prejudice against it, is the time to claim a fair trial for blood-letting as a remedy.

DEATH-RATES OF HOME AND FOREIGN CITIES.

THE Registrar-General's Annual Summary of the London Weekly Returns, which has just come to hand, is a publication of great importance, from the nature and extent of the facts of which it is the record. Those who are familiar with the Weekly Returns know that for some time past the death-rates of several foreign cities have been published for comparison with those of London and other large cities and towns of the United Kingdom. The Registrar-General deserves a word of commendation for this, as it must be obvious that it costs some additional trouble to obtain these foreign statistics; and we hope he will be encouraged to further extend the usefulness of his office in certain matters nearer home, as to which he has hitherto rather inclined to the *non possumus* principle. But this by the way, forasmuch as we are at this present concerned with what he has accomplished, not with what he has left undone. From the summary above referred to, we glean the following interesting facts relative to the observed death-rates of cities during the year 1870.

Taking nine British cities or towns of the largest magnitude, Birmingham experienced the lowest death-rate of 21 per 1,000, Liverpool being at the opposite end of the scale with a rate of 31 per 1000. Between these extremes the rates were 24 in London, 25 in Sheffield, 26 in Edinburgh, 27 in Manchester and Salford, 28 in Leeds, and 30 in Glasgow and Bristol. That London, suffering under a scarlet fever epidemic of exceptional severity throughout the year, and from an outbreak of small-pox of unexampled malignity during the later months of the year, should nevertheless stand second in the order of lowest mortality among these nine cities, is a notable fact, from whatever cause arising. The proportionate mortality from the principal zymotic diseases follows the order of the general mortality so closely as to indicate that those diseases virtually govern the death-rate: Birmingham lost the fewest lives by zymotic disease, and London the next fewest, while Bristol and Liverpool suffered the most heavily therefrom. It may not be out of place to mention, with reference to a doctrine which has been advanced by some critics of the Registrar-General's statistics, that the table of birth and death-rates for 1870 in British cities and towns does not appear to show that the relation between a high birth-rate and a high death-rate, or *vice versa*, is a constant relation. As regards the real significance of the death-rates themselves, we have to bear in mind that as tests of relative salubrity they have been called in question. Of course they can but be rough tests for general purposes, and as such we apprehend they are meant to be used.

Turning now to foreign parts, we are struck by the remarkably low death-rate of the Indian city of Bombay. Dr. Hewlett, the medical officer of health, has supplied the Registrar-General with weekly returns since the beginning of 1870; and taking the whole year it appears that the mortality did not exceed 18.2 per 1,000, notwithstanding that small-pox and fever were relatively far more rife than they were in London. One would like to know whether the registration arrangements in Bombay are of a character to render the comparison with our home-returns a fair one; if they are, the result may be taken as proof that sanitary work in Bombay is effectively done. On the other side of us, in the capital city of the New World, we find nothing to excite our envy. Dr. Russell, the Registrar of Records to the Health Department of the City of New York, sends his contribution to Major Graham's summary, showing that the mortality in that city last year was at the rate of 29.3 per 1,000 of the population. The death-rate from the eight principal diseases of the zymotic class was 7.1 per 1,000 persons living in New York, against 5.2 per 1,000 in London. A greater proportion of

the New York population died last year in hospitals and other public institutions than in London. The central European city of Vienna experienced a death-rate of 29.8 per 1,000; the population appears to be very densely packed, for it is stated that there is an average proportion of 60 persons to every house, but typhus and small-pox last year were little more fatal than they were in London, while scarlet fever and measles were considerably less so. The returns from the city of Berlin ceased during the war, and its death-rate for the year could not therefore be ascertained. From the same cause, the city of Paris presents a blank in the summary for 1870, but, as we have elsewhere noted the resumption of the weekly returns from that city, we hope to be in a position ere long to supply the lacking information.

Our readers will probably admit that, if we have not extended our observations on the subject of this article to the poetic limits "from China to Peru", we have at any rate made a tolerable approach thereto. Madras and Brussels have lately been included in the weekly return system, so that the annual summary of 1871 will show a progressive comprehensiveness.

THE CONJOINT EXAMINATION SCHEME.

At the meeting of the Council of the College of Surgeons on Wednesday last, it was resolved not to confirm the resolution referring back the scheme for conjoint examinations, until the Council had time to consider the detailed terms of the reference which it was proposed to make. There was a general concurrence in the spirit of Mr. Simon's resolution to refer, and the ultimate result will, we imagine, be identical with that which would have followed had the minutes been confirmed. Under these circumstances, we regret the delay, which involves a loss of time, and has a character of undignified vacillation. There is, however, we are glad to say, good reason to believe that the Conjoint Committee are by no means unwilling to accept the larger view which will be laid before them; and, if the Universities will assent, there is still a probability of the establishment of an unified test-examination, preliminary to all English degrees and diplomas, issuing from the labour of the Committee. We have always contended that this, and nothing less than this, should be the object of their efforts. This will be an undoubted step in advance, and a voluntary partial anticipation of what the Government and the Association have alike aimed at in seeking medical reform through legislation.

MEDICAL ACTS AMENDMENT BILLS.

ON Tuesday last, Dr. Lush, M.P., obtained leave to bring in a Bill to amend the Medical Acts. Mr. Brady, M.P., obtained leave to bring in a second Bill. The measure which Dr. Lush will bring forward is, we believe, that which is known as the *Lancet* Bill. Mr. Brady's Bill is the Irish College of Surgeons' Bill. The estimate which these gentlemen form of the possibility of any real action in the matter, on the bases of these documents, may be gathered from the fact that, having gone through this form, they have put them down for the 14th of June, which amounts to their virtual abandonment from the first. We are not disposed to criticise either of these measures unkindly; but, unhappily, they carry their doom plainly inscribed on their front, even if their fate had not been at once so clearly indicated by their official exponents. The measure of the Irish College of Surgeons will fall through by reason of its shortcomings; it is too timid to satisfy the Government or the profession. That introduced by Dr. Lush has high aims; but in detail it has the misfortune to propose, as an essential part of it, to degrade and abase the corporations, and to appoint examiners independently of them; to waste all their great resources and material facilities for examination, and to leave them unreformed. It is a measure so narrow and destructive, that, if ever it reach the stage in which it is thought worth while to give it serious notice, it will inevitably perish in the flames which it lights up.

THE examinations at the Royal College of Surgeons will commence on Saturday, April 1st.

THE profession will hear with great regret that the health of Mr. James Paget is causing much anxiety to his numerous friends.

DR. DUCHEK has been appointed the successor of the celebrated Skoda in the University of Vienna.

M. PASTEUR of Paris has sent a letter to the Dean of the University of Bonn, resigning the honorary diploma of doctor conferred on him in 1868.

THE torch-light procession by the students and other members of the University of Vienna, in honour of Skoda, is to take place on the evening of this day (Saturday), the 18th instant.

AT a special meeting of the Council of the Royal College of Surgeons on Wednesday last, Mr. Curling, F.R.S., Consulting Surgeon to the London Hospital, was elected a member of the Court of Examiners, in the room of Mr. Solly, F.R.S., resigned.

AT a meeting of the Social Science Association, to be held at Adam Street, Adelphi, on Monday next, Dr. Guy will read a paper on "Vagrancy; its Nature, Causes, and Cure: with special reference to recent legislative efforts bearing upon it."

THE next meeting of the Association of Medical Officers of Health will be held this evening (Saturday), at 7.30 P.M., at the Scottish Corporation Hall, Crane Court, Fleet Street, when a paper will be read by the President (Dr. Druitt), "On the Status of Medical Officers of Health, as modified according to the Report of the Sanitary Commission."

UNIVERSITY COLLEGE HOSPITAL.

MR. RICHARD WALLACE has, amongst other munificent donations, presented £2,000 to University College Hospital.

THE WESTMINSTER HOSPITAL.

AT a meeting of the House Committee held on Tuesday, March 14th, 1871, Mr. Francis Mason and Mr. Richard Davy were nominated as candidates for the respective offices of Surgeon and Assistant-Surgeon to the Hospital.

THE SWINEY LECTURES.

DR. COBBOLD, F.R.S., delivered the first of his course of twelve lectures on Geology at the Royal School of Mines, Jermyn Street, on Saturday evening last, at eight o'clock. The lectures will be delivered at the same hour every Saturday. By the permission of the Director-General of the Royal School of Mines, and with the approval of the Trustees of the British Museum, the course is open free to the public.

THE DISTRIBUTION OF DISEASE.

AMONG the subscribers to Mr. Haviland's work on the *Geography of Disease*, now in course of publication by Messrs. Keith Johnson, are Sir Thomas Watson, the Registrar-General, the Medical Department of the Privy Council, Dr. Acland (for the Radcliffe Library, Oxford), Mr. Quain, Mr. Erasmus Wilson, Dr. Budd (Bristol), and other public persons and departments, including the intelligent heads of a few municipal sanitary boards. We especially commend these maps to local boards of health and the medical officers and sanitary boards of towns and rural districts throughout the country. The undertaking is one which is not likely, under any circumstances, to be remunerative to its author; but it is painful to see how much is left now to the initiative of individuals here, and how coldly scientific enterprise is regarded. The scientific and practical sanitary importance of these maps is very considerable. Their circulation must, in any case, be limited and, unless the sanitary bodies and officers most interested in the details of the distribution of disease offer some encouragement, their production must be attended with a heavy loss, which will fall on the author, on whom all the labour has devolved.

ST. BARTHOLOMEW'S HOSPITAL.

DR. T. LAUDER BRUNTON has been appointed to succeed Dr. R. Thorne Thorne as Casualty Physician at St. Bartholomew's Hospital.

HEALTH IN HAMPSTEAD.

WE find with pleasure that Mr. Lord, the able medical officer of health of the Hampstead district, is employing the influence of his experience and common sense in counteracting the senseless panic with which the people of Hampstead have been seized as to the Hampstead Small-pox Asylum. By this time the inhabitants are probably convinced that the danger is hypothetical; while the injury, annoyance, and loss which have followed upon the irrational outcry raised are real. We trust that, as more intelligent counsels prevail, the injury will pass away. If the rate-payers would induce the Vestry to provide a public ambulance for the conveyance of the sick, and a public disinfecting-chamber, with efficient house-to-house inspection, they would do almost as much to improve the value of life and of the property in their district, as they have lately been doing to depreciate it—and that is saying a great deal.

OUT-PATIENT HOSPITAL REFORM.

THE General Committee held an adjourned meeting on Monday evening, to consider their final report. A motion was brought forward by Dr. Heywood Smith, and carried, to the effect that the several reports of the Subcommittees on General Hospitals, Special Hospitals, Dispensaries, and the Poor-law Medical Relief, should be printed, together with the General Report, as they contained much valuable information. It was therefore considered unnecessary that the final report should be so full. A very short report was, therefore, laid before the Committee, which had been prepared in consequence of the notice previously given of Dr. Heywood Smith's motion. This new report was adopted; and several resolutions were agreed to, which embody the opinions of the Committee. These are to be laid before a general meeting, which is fixed for Thursday, April 20th, when Sir William Fergusson will again take the chair.

THE OUTBREAK OF SMALL-POX AT ST. GEORGE'S HOSPITAL.

A VERY careful investigation of the recent outbreak of small-pox at St. George's Hospital has led Dr. Thomas Jones, the resident medical officer of the hospital, to the conclusion that it was propagated through the medium of the laundry. This conclusion has only been arrived at after a conclusive and able inquiry, of which we have had an opportunity of following the details. The small-pox first appeared in a patient who went out on leave on November 10th, and visited a person suffering with small-pox. After the usual incubation of fourteen days the eruption appeared (November 24th), and on that day the sheets were sent to the laundry without disinfection. These were returned and placed on the beds on December 1st. After an incubation of fourteen days, small-pox appeared on December 15th, in Cases 2 and 3. On December 15th the sheets of Case 2 went to the laundry without being disinfected, and were returned on December 22nd. On January 5th three more cases showed the eruption, having probably been infected on December 23rd. Some of the above sheets returned on December 22nd were not placed on the beds till December 26th, and fourteen days afterwards seven cases presented the eruption, they having received the infection on December 27th. Other means of protection by isolation and general disinfection had been adopted; and the absence of intercommunication and arbitrary localisation of the patients is such as to add great force to the evidence that the infection was propagated through the laundry, and chiefly from patients in the very first unrecognised stage of disease. The careful disinfection of the linen from this date, and the subsequent revaccination of all the patients, promptly arrested the outbreak. There were in all twenty-seven cases, of which six died. The evidence derived from this study is that the temperature of boiling water does not destroy the small-pox poison; that in periods of epidemic, all febrile symptoms must be regarded as suspicious, and the patients as capable of conveying infection from the first. On the 12th of January, all the patients in the hospital were revaccinated, and from the

date of the 14th not a single case of small-pox occurred. The paper giving full details of Dr. Jones's inquiry will be published in the St. George's Hospital Reports, and will be found to be an able and important piece of clinical reasoning.

THE BATH UNITED HOSPITAL.

WE read the following in the *Bath Chronicle*.

At the weekly meeting on Monday morning, a letter was read from Dr. R. W. Falconer, Honorary Physician to the Charity, resigning his post, which he has occupied for some twenty-two years. Dr. Falconer wrote: "The increased private demands upon my time prevent me from discharging my duties as physician of the Hospital in a manner satisfactory to myself, and therefore I can no longer with propriety continue to hold the office, which I now beg very respectfully to resign into your hands. After having been physician to the Charity for two-and-twenty years, you may well suppose that I have not come to this decision without much consideration and sincere regret. I trust, however, still to be able to take part in the deliberations of the Committee, with whom I have always had much pleasure in endeavouring to promote the welfare and prosperity of the Hospital." Dr. Falconer's resignation was received by the Board with sincere regret, and it was resolved that his letter be entered on the minutes, and, further, "That the Trustees and Committee, desirous of recognising Dr. Falconer's unremitting attention and devotion during twenty-two years to the interests of this Hospital, and also of retaining his valuable services, hereby appoint him its Consulting-Physician."

In spite of the constantly increasing demands on his time, Dr. Falconer has for many years devoted an amount of labour, time, and care, to the affairs of the British Medical Association (of which he is Honorary Treasurer) which cannot be too highly appreciated. The demands of that office are largely increased by the collateral duties of standing and special committees. This is not the place for referring to the services of Dr. Falconer as one of those eminent provincial physicians whose influence and exertions have in the last quarter of a century wrought an immense revolution in favour of the profession in the provinces. But, as a laborious honorary officer of the Association, it is just to note how faithfully he continues to perform those duties, even while resigning others not less serviceable and important.

THE TRANSMISSION OF RINGWORM FROM HORSE TO MAN.

AN interesting contribution to the subject of the transmission of vegetable parasitic diseases from the lower animals to man was submitted to the Clinical Society on Friday, the 10th instant, by Dr. Tilbury Fox. This gentleman detailed the particulars of seven cases of tinea circinata (ringworm of the non-hairy parts) caused by the implantation upon the forearm of certain grooves of the spores of the trichophyton derived from the diseased surface of a white pony affected with well-marked tinea tonsurans all over its body. Dr. Fox stated that, though numerous instances were on record in which the disease had been communicated from the ox and the calf to man—a common occurrence, for instance, in Ireland and Australia—yet he was unaware of an instance of the kind having been published as happening in the practice of an Englishman; and Professor Spooner has seen nothing of the sort in his forty years' experience. The transmission of ringworm from the horse to man had been noticed, however, by Bazin and others in France, and some years since by Professor Papa in Savoy. The specimens placed under the microscope exhibited, on the one hand, a fungus possessing all the characters of trichophyton, ensheathing the hair of the horse, and penetrating into its interior; and, on the other, luxuriant mycelial threads, breaking up in parts of their course into conidia, and spreading in all directions throughout the scales removed from the fore-arm of one of the men, three of whom were present, and were examined by the Fellows. The tinea circinata in all the seven men was of an exaggerated form, the herpetic feature of the disease being especially well-marked; and Dr. Fox attributed this to the unusual amount of irritation set up by the plentiful sowing of a large amount of actively germinating fungus. It has been said by veterinarians that ringworm is common in the horse; but it is not unlikely that many similar diseases are ranked together under this term, and as yet the microscope has not been suffi-

ciently employed to define and prove the parasitic nature of that affection which, by common consent, is regarded by veterinary surgeons as ringworm. This is a point that sadly requires investigation.

ACADEMIC RAGE.

AMONG the German *savans* whose names the French Academy of Sciences has, with honour to itself in the past, enrolled on its lists, but now proposes to erase, are the *clara nomina* of Liebig, Kohler, Kummer, Bunsen, Hofmann, Weber, Mayer, and Kirchoff; among botanists, Mohl, Braun, and Hofmeister; among biologists and physicians, Siebold, Virchow, Rokitsansky. Although in this war even the fierce passions of the battle-field have respected the beneficent neutrality of medicine, and although thousands of French officers and men owe their lives to the tender care of German surgeons and physicians—this our own eyes have witnessed—we learn with pain that the passions which survive the war extend their bitterness to the neutral and serene plain of medical science, and that it is even proposed to strike off the lists of the French Medical Societies the eminent Germans whom France has from time to time placed upon the roll of well-won honour.

PROTECTION OF THE ARMY FROM SMALL-POX.

NOTWITHSTANDING statements to the contrary, we learn that the army has enjoyed a remarkable immunity from the influence of the epidemic of small-pox. All recruits are vaccinated immediately on joining their regiments or depôts, whether they bear marks of vaccination, or have had small-pox previously to enlistment. To this is no doubt attributable the immunity of our troops quartered in localities where the disease prevails amongst the civil population. The following is the total list of casualties. There have been several cases of small-pox amongst the Guards, and two deaths. There have likewise been some cases, but no deaths, amongst the recruits of the Guards stationed at Warley; a few cases and one death at Aldershot; a soldier on the recruiting staff in London has died; and a man on furlough at Nuneaton has also died. These are, we believe, all. A case has occurred here and there in England, and two, we believe, in Ireland; but none in Scotland amongst the military.

THE SANITARY STATE OF LIVERPOOL.

OUR Liverpool correspondent writes:

Drs. Parkes and Sanderson have commenced their inquiries into the causes of the mortality of Liverpool; and the result is naturally looked for with much interest and anxiety. In anticipation of the fruitful results of the impartial and searching investigations of these eminently competent authorities, we reserve the promised exposition of our own views on the subject, but cannot resist the temptation of hazarding a prediction that one opinion that we have long entertained will be brought to light through their inquiries—namely, that the death-rate (so-called) of Liverpool is an utterly fallacious test of the actual proportion of mortality to population. They have already told us that “the use of the population-returns of the census of 1861, even with corrections, would lead us into great error.” As this letter may come under the notice of Dr. Parkes and his colleague, we take the opportunity of stating that we have heard, on what we believe to be good authority, that, in taking the last census, through some extraordinary freak of the circumlocution office, an entire district of the borough was omitted, no enumeration was assigned to it, and consequently the returns of the population were by several thousands less than the actual number. We are further credibly informed that, in one registrar’s district alone, about one hundred births per quarter escape registration. When we add to these deficits in births and population, the fact that a considerable number of deaths recorded are those of persons found drowned in the river, carried in by the tide from sea—that many also occur amongst the large class of sea-going people, intending emigrants and foreigners, who, although dying in Liverpool, in a large proportion of instances cannot be fairly included in the estimate of the actual death-rate of the town as governed by its sanitary condition—it is at once apparent that the death-rate may prove a most fallacious guide to a correct estimate of the vital statistics of Liverpool. We understand that the origin of the present small-pox epidemic has been clearly traced to the importation of a case of variola from abroad into Everton, in July last; it continued to extend first throughout that township, gradually making its way to the north district of Liverpool proper,

which abuts upon Everton, and ultimately reaching successively the central and southern districts, indicating that the course of a zymotic does not confirm the common opinion, that where poverty, overcrowding, dirt, and destitution most abound, there zymotics necessarily originate and expend their earliest and most active force, but that they follow the course which might naturally be expected in the case of contagious diseases, making the greatest havoc in the most populous districts to which they are conveyed, not because those localities are specially unhealthy, but because there are the greatest number of persons ready to receive the infection, and to transmit it to others.

THE MAURITIUS EPIDEMIC.

THE year 1871 has dawned upon the lovely island of Mauritius in a more happy mood than its several immediate predecessors. The epidemic of fever, which had gained for the colony abroad the name of pest-house, has at length been for the present almost subdued; and the authorities are busying themselves in a way to prevent a fresh outbreak, by carrying out and squabbling over new sanitary measures. The mortality at the end of the year had so far diminished that the local papers had warmed to expressions of gratitude to Providence for the happy release from a plague the outbreak of which was clearly attributable to their own carelessness and neglect of sanitary laws. Still the deaths from fever during the year were nearly 43 per cent.—a fact which the *Commercial Gazette* treats lightly, comforting itself by the assurance that “fever-statistics are not to be relied on, because of the restricted number of medical certificates of the causes of death.” There is reason to believe that the new hygienic measures, imperfect as they are in many ways, which are being or are about to be carried out, will tend to diminish the general mortality, and lessen the tendency to the oft-recurring epidemics which have for so long ravaged the colony. We fear, however, that more sweeping measures will be found necessary completely to eradicate the scourge.

SMALL-POX ENCAMPMENTS.

SURGEON-MAJOR ATCHISON has made an excellent proposition for meeting the necessities of accommodation for small-pox patients by “encampments” on the commons, waste lands, or other unenclosed spaces nearest to the suburbs attacked. Such hospital-huts can be very rapidly raised and comfortably arranged, as indeed the recent experience of the Asylum Board at their Hampstead site shows. Mr. Atchison knows well that of which he speaks, for his experience as an Indian administrator is quite to the point. We should be glad to see him entrusted by the authorities with practically carrying out the scheme which he describes so well.

LESSONS OF THE EPIDEMIC.

THE largest available experience on the subject of small-pox and vaccination was drawn upon at the meeting last Wednesday of the Epidemiological Society. Its analysis confirms singularly previous conclusions. Thus, of the 800 cases treated at Hampstead up to February 18th last, only 9.8 per cent. of these nominally vaccinated, but 45 per cent. of the unvaccinated, have died. There were 591 cases of the former class treated, and 209 of the latter; so that the saving in mortality in this hospital due to vaccination amounted to 206 lives amongst less than 600 persons. The average duration of the disease was twenty-four days in the vaccinated, and thirty-five days in the unvaccinated. Yet further, of those vaccinated persons attacked, the rate of mortality of those between ten and twenty years of age was only 2.8 per cent.; of those between twenty and forty, it was 12.6 per cent.; over forty, it amounted to 22 per cent. No more conclusive evidence could be desired of the protective efficiency of ordinary vaccination up to the age of puberty, and of the necessity for renewing the protection at about that time. The final protection afforded by revaccination, properly performed, at this age, appears to be nearly absolute. The immunity thus afforded to the large staff of the Hampstead Asylum has been as complete as that similarly ensured during thirty-five years to those employed at the Highgate Small-pox Hospital. It is not, however, quite absolute or universal. In the course of thirty-five years’ experience at the Small-

pox Hospital, Mr. Marson stated that there have been in all two or three deaths of persons believed to have been revaccinated: in these, the marks were not perfect. Revaccination at about the age of twenty should be as universal as primary vaccination in early infancy, in order to secure complete immunity for the population.

WHY THE POOR ARE NEGLECTED.

WE record elsewhere a verdict of an East-end jury attempting to affix the stigma of manslaughter on a Poor-law medical officer for alleged neglect in a case in which they were distinctly informed by the (legal) coroner that no such charge was sustainable—their assigned reason being a desire to punish the doctor for not attending the inquest. The following communication from one of the officers of an adjoining district will do something to explain the nature of the duties which fall upon the Poor-law medical officers in their districts, and affix the stigma of neglect of the poor where it ought to lie—on those who over-burden the medical officers with an almost impossible amount of work, at a miserable stipend.

377, Hackney Road, March 4th, 1871.

Gentlemen,—I respectfully beg to inform you that, since the reduction of your out-door medical staff from seven to six, my work has greatly increased in my greatly enlarged district.

During the last eight weeks I have had under treatment 375 parish cases—304 of which required to be attended at their own homes; besides this, my daily dispensary attendance, and the great distance of Morpeth Street Dispensary—which is on the verge of Mile End parish, my residence being on the verge of Shoreditch parish—occupies on an average three hours daily of my time. I therefore earnestly ask your Board to take my case into your consideration, and relieve me from that portion of my district east side of Cambridge Road, and also to allow me to attend at Quilter Street Dispensary, which is much nearer my house, and would be of great advantage to my parish patients.—I remain, Gentlemen, your obedient servant,

CHARLES WELCH, Medical Officer, No. 2, district.

To the Board of Guardians, St. Matthew, Bethnal Green.

NOTE ON MILK-ASH.

MR. J. A. WANKLYN writes as follows. The statement current in the text-books that caseine is kept in solution in milk by means of alkali, with which it forms a kind of salt, cannot be correct, inasmuch as I find, on examining the ash left on incinerating milk, that there is no appreciable quantity either of alkali or of alkaline carbonate. The experiment was made on two specimens of milk, one from Hertfordshire, and the other from Essex. I evaporated down ten grammes of milk in a small platinum dish, incinerated the residue, and then moistened the ash with water, added drops of very dilute standard sulphuric acid, and observed the reaction on litmus paper. After the addition of 0.5 cubic centimetres of standard acid, the action on litmus paper is not alkaline; and on the addition of 1 c. c. the reaction is distinctly acid. 0.5 c. c. corresponded to $2\frac{1}{2}$ milligrammes H^2O . S. O^3 . Milk-ash, if it contain any alkali at all, does not contain so much as two per cent. of carbonate of soda, and the ratio of alkali to caseine cannot be so large as 2 to 400.

POISONOUS OR MOON-STRUCK FISH.

DR. JOHN MURRAY writes as follows in the *Australian Medical Gazette*.

"While walking home one moonlight evening from Melbourne to a suburban locality, I passed a fishmonger's shop, in which were a number of the fish known as Tasmanian barracoutta, lying split open on a board outside the window exposed to the moon's rays. This immediately suggested to me the phenomena attending the eating of poisoned or moon-struck fish. Having on one occasion gone to the market held in Liverpool Street on a Saturday evening, I saw some very fine barracoutta lying exposed on a barrow, one of which I purchased and sent to my lodgings. On my return, the landlord informed me that the fish was moon-struck and unwholesome. Being rather sceptical about this statement, I resolved to test the truth of it. Next morning the fish,

which was fricd for breakfast, was found to have the usual taste and flavour. About half an hour after the meal, my wife complained of headache and nausea, heat in the face and head, and a sensation as of the head and face swelling greatly. Her countenance became suffused of a deep red, and the headache increased. I was also affected with similar symptoms, but had no headache. On mentioning the matter to the landlord, he recommended brandy, which was immediately administered to the extent of two or three wineglassfuls. This very soon relieved me. The redness of my face and head gradually diminished; but not so with my wife, whose symptoms were only partially mitigated. Having occasion to leave home for a couple of hours, and finding, on my return, that my wife still complained of severe nausea and headache, I gave her some brandy-and-water as hot as she could drink it. This almost immediately produced a full emetic discharge, whereby the severe and distressing symptoms were quickly removed. On inquiring of the landlord how he knew the fish was moon-struck and poisoned, he replied that there was a peculiar soft and slimy feel to the finger when rubbed along the lower part of the belly at the junction of the two sides. This occurrence is not uncommon in Hobart Town, especially with the barracoutta, from the mode of splitting them, and thus exposing for sale. Whether the other kinds of fish, such as the trumpeter, butter-fish, etc., are similarly affected, I do not know, as I have never seen them cut up and exposed for sale like the barracoutta; but from other facts, I am disposed to believe that all fish are liable to the same action of the moon's rays. One instance of this occurred to a nephew of mine shortly after his arrival in this colony, when he informed me that he and his wife had suffered, after eating moon-struck schnapper, from similar symptoms, and had been relieved by the same remedy."

ADULTERATIONS OF MILK.

IN England, private enterprise undertakes that which Government does in foreign countries. Accordingly, we find the *Milk Journal* engaged in an inspection of the milk-dealers of London. In fifty specimens of milk it found twenty-nine bad, eight middling, and thirteen good. The form of maltreatment most in favour with our milk-dealers appears to be "skimming;" and they often "water" as well. Chalk they never put in, nor do they ever adulterate with salt. Whether or not they use sugar or other organic matter is to be told to us in a future report. We are glad to find our contemporary publishing the names of the dealers. Lax morality is not confined to the small milkman, but is shared with him by some of the capitalists who have embarked in the milk trade. To buy skimmed milk in the country, to mix it with milk, and then sell it as new milk in London, is a profitable commercial operation. To mix a volume of water with an equal volume of milk, and to sell the mixture to a London union under the designation "milk," is also profitable. From the report to which we have referred, it would seem that examples of both these operations have been afforded by London milk companies.

SCOTLAND.

DR. JOHN SMITH, of Edinburgh, has been appointed by the Queen Surgeon-Dentist to her Majesty in Scotland.

THE late Mr. John Laurie, one of the subscribers to the building fund of the new Edinburgh Infirmary, has, in virtue of a promise which he made, left a further sum of £2,000 to the institution.

DEATH FROM CHLOROFORM IN THE EDINBURGH ROYAL INFIRMARY.

DR. J. D. GILLESPIE, President of the Royal College of Surgeons of Edinburgh, and Senior Ordinary Surgeon to the Royal Infirmary, writes to us concerning the recent case of death from chloroform mentioned in our last, that the following heart-lesions were present. "*Heart*: weight, $16\frac{1}{2}$ ounces; right side flaccid, and considerably distended; walls thin and easily folded on one another; right auriculo-ventricular orifice admitted with ease seven fingers. *Microscopical appearances*: Sections of walls of right and left auricles and right and left ventricles were made, and the muscular fibrillæ were more or less affected with true fatty degeneration." Dr. Gillespie adds, "It is the first fatal case which has

occurred to myself as hospital surgeon during the last fifteen years, and death took place almost instantaneously after the patient had been struggling and talking articulately, the chloroform being administered by a gentleman who has frequently given it to patients under my care. I may further remark that it was a dislocation of the right shoulder of seven weeks' duration, on which attempts at reduction under chloroform had previously been made." Our information was to the effect that this was the second case of death from chloroform which had occurred at the Edinburgh Infirmary. Dr. Gillespie does not state whether this is so or not, but gives only the facts as to his own practice in the Infirmary. The immunity from fatal results has there been remarkably prolonged.

ABERDEEN ROYAL INFIRMARY.

AT the quarterly meeting of the managers of the Royal Infirmary, held on Monday, the 13th inst., a letter was read from Dr. Kilgour, intimating his intention to resign the office of Consulting-Physician, on account of failing health, an announcement which will be received with much regret. At the same meeting, it was remitted to a committee to carry out the arrangements for the erection of new fever wards and for the enlargement of the Infirmary airing-grounds, the total estimated cost of which is over £3,300. The improvements which will result when these additions are carried out have already been pointed out in our pages.

GLASGOW OPHTHALMIC INSTITUTION.

THE annual general meeting of this Institution was held a few days since in the Religious Institution Rooms. There was a large and influential attendance. Over two thousand individuals had received the gratuitous benefits of the charity during the year. Among the operations performed were: for cataract, 72; for strabismus, 38; on the lacrymal passages, 43; for tumours of the eyelid, 36; and for cancer, 8. The greater number of patients reside in the west quarter of the city, showing that the promoters were fully warranted in establishing the charity in that locality. Within the last year about £2000 have been collected for the Institution.

LADY-STUDENTS AND THE ROYAL INFIRMARY.

THE managers of the Infirmary have at length given their decision on the vexed question of admitting female medical students to clinical instruction in the Infirmary. At the last meeting of the managers, the following resolution, proposed by Professor Balfour and seconded by Mr. David McLaren, was negatived by thirteen to five. "That the University of Edinburgh having, by the decision of its Senatus, Court, Council, and Chancellor, sanctioned the admission of registered ladies to separate medical classes, the managers of the Infirmary, not wishing to differ from the University in this matter, resolve to consider what plan can be adopted to admit such ladies to the advantage of separate clinical instruction in the wards of the Infirmary, which is absolutely necessary for the further progress of their studies. The managers therefore remit the matter to the following Committee, with a request that they will consult with Dr. Bennett, Dr. George W. Balfour, and Dr. Watson, who have indicated a plan for clinical lectures, without injury to the patients or annoyance to the male students, and to report." An amendment, proposed by Dr. Christison and seconded by Dr. Combe, on the same motion, was then carried by a majority of eight. It was to the following effect: "That the managers decline to disturb their resolutions of 31st October and 16th November last, relative to this subject, until satisfied by the petitioners that they can present a plan for fulfilling the purpose of the petition, without danger to the objects for which the Infirmary was originally designed by its founders, and which have been steadily and most successfully kept in view by the managers ever since the Infirmary was established in 1729; viz., the cure of the sick and hurt poor, and 'giving the young gentlemen attending the study of physic and surgery in Edinburgh all opportunities of education in their power'."

IRELAND.

THE Board of Management of the Cork District Lunatic Asylum have decided not to pay a substitute who performed the duties of Dr. Power, the Superintendent, during an absence of six weeks.

RICHMOND SURGICAL HOSPITAL, DUBLIN.

ON last Friday, March 10th, Mr. Stokes delivered a clinical lecture on the Operation for Strangulated Hernia, and gave the particulars of five of his cases, in four of which the operation was successful. After discussing many practical points connected with the operation—as, for example, the advisability of operating at an early period after the strangulation had occurred, the question of opening or not opening the sac, and the principles that should guide the surgeon in the after-treatment of such cases—he proceeded to give the particulars of an interesting case in hospital that had quite recently been the subject of operation. The patient is seventy-three years of age; and, at the time of admission into hospital, the symptoms of strangulation had lasted *twelve days*. The tumour, oval in form, in the left femoral region, was not painful to the touch; nor was there any remarkable amount of tension about it. The day after her admission, Mr. Stokes operated. After making the usual incisions, he arrived at what seemed to him an omental tumour. A constriction external to this tumour he freely divided, but failed, notwithstanding, to reduce the protrusion. He then divided the omentum, and found a constriction between it and the intestine, after the division of which constriction the hernia could be reduced. There was thus a double constriction, one external to the omentum, and the other between it and the intestine. A very marked improvement followed the operation. The vomiting at once ceased; and, two days after the operation, there was a copious motion from the bowels. The only untoward circumstance connected with this case has been the subsequent formation of a faecal fistula at the site of the operation. The peculiar features of the case were the absence of pain, tension, and congestion of the intestinal protrusion; and there was also no impulse on coughing. The other cases were then briefly described; and special reference was made to some cases in which only a portion of the cylinder of the gut protruded and became strangulated. The lecture concluded with a demonstration of a large number of drawings and preparations taken from the Richmond Hospital Museum, illustrative of the pathology of strangulated hernia.

VACCINATION AND REVACCINATION OF SEAMEN: THE DUBLIN MARINE BOARD AND THE BOARD OF TRADE.

THE increasing number of cases of small-pox imported from Great Britain and elsewhere renders it necessary for Government to facilitate measures devised by the local authorities in Ireland to check the spread of the disease. It was with that view that the Dublin Marine Board authorised their medical inspector to attend on stated days at the Dublin Custom House, for the purpose of gratuitously vaccinating all sea-faring persons desirous of that protection; the Board communicated their resolution to the Board of Trade, in full expectation that the latter department would sanction their very natural and laudable intention. It is, however, with much regret we have to state that the Board of Trade replied that "they are responsible neither for vaccination of the men, nor for the payment of the medical officer." It appears that the receipts of the Dublin Marine Board from examination of seamen for qualification as masters and mates amount to a sum considerably over the cost of that department. The measure recommended by the Dublin Board has the fullest approval of such able professional gentlemen as Dr. Dickson, Medical Inspector of Her Majesty's Customs (London), Dr. Holcombe, Medical Inspector of Emigrants (Liverpool), and others professionally conversant with seamen, who hail the action of the Irish local authorities as well worthy of imitation in Great Britain. It seems a great pity that the Board of Trade have not at once authorised the Dublin Local Marine Board to take the necessary steps, when the entire expense is so small as probably not to exceed eighteenpence or two shillings per head.

VACCINATION AND SMALL-POX.

AN award of £15 was made last week to Mr. Harris, of Mildenhall, Poor-law Medical Officer, for successful vaccination. This is the second gratuity for success awarded to Mr. Harris.

At the next Ordinary Meeting of the Metropolitan Counties Branch of the British Medical Association, Dr. Edward Seaton, Inspector of Vaccination at the Privy Council Office, will give an address on some of the Lessons derivable from the present Epidemic of Small-pox. The time and place of meeting will be duly announced.

SMALL-POX AMONG SOLDIERS IN WATERFORD.

IN reply to a letter from the surgeon of the 51st Light Infantry, stationed in Waterford, asking if any soldiers who might be attacked by small-pox could be treated in the Workhouse Hospital, the Board of Guardians have decided that no soldiers suffering from small-pox are to be admitted. In the discussion, it was stated that a shed would be prepared near the Fever Hospital for any of the inhabitants of the town who might be attacked with small-pox.

ADDRESSES ON VACCINATION.

DR. DIXON of Bermondsey has delivered recently an excellent lecture on Small-pox, Vaccination, and Revaccination, before a crowded audience in the school-room of his parish. This lecture gives a convincing and popular summary of the history of small-pox, and the evidence of the protective value of vaccination and revaccination. It furnishes an admirable answer to the plausible fallacies of the anti-vaccinationists. It is republished as a broadsheet, at the price of one penny, by F. Shaw, *Advertiser* Office, Dockhead, S.E. The frequent delivery of such addresses and their extensive circulation in a cheap form would render an important public service, and we recommend the subject to the consideration of our professional brethren generally.

DEATH "AFTER VACCINATION."

AN inquest has been held upon the Superintendent of the Public Baths at Liverpool, who had been vaccinated by a chemist from lymph taken from his own arm. The following day the deceased was taken ill, and attended by a surgeon until his death, which took place on the ninth day after vaccination. The medical man stated at the inquest that he had vaccinated the chemist, and that both the lymph and the chemist were healthy. The deceased was suffering from diabetes, and had he been consulted he should not have considered it prudent to vaccinate. The death was not at all attributed to the lymph or to the manner in which the vaccination was performed, but to the tendency to blood-poisoning dependent on the diabetic condition of the deceased. It is to be regretted that stress was not laid on the importance of revaccinating only from virgin lymph. The importance of this practice is strongly insisted upon by all authorities on the subject.

THE LAW OF VACCINATION.

WE noticed a short time since the failure at Bridgewater of prosecutions of parents who refused to produce their children in court when summoned under the provisions of the Compulsory Vaccination Act. The matter has been submitted to the law officers of the Crown, who have advised that "a parent who has been summoned under the 31st section of the Vaccination Act, 1867, and himself appears, but does not produce the child, cannot at the same time maintain that on the one hand he has appeared in obedience to the summons, and on the other hand that the justices have no jurisdiction because there is not an appearance. In such a case, therefore, if the justices are of opinion that the appearance is a sufficient one, they should proceed with the case, and, if they see fit to do so, make an order for the vaccination of the child; but, if they are of opinion that the appearance is not a sufficient one, they should then proceed (under the 2nd and 3rd sections of the 11th and 12th Vic., ch. 43) for disobedience to the summons. If the child be of sufficient age to give evidence, and be required as a witness, my lords are advised that the magistrates may put in force the provisions of the 7th sec. of the 11th and 12th Vic., ch. 43. With regard to the 29th sec. of the Act, only one penalty can be inflicted under it respect of the same child." Hereupon instructions have been given to prefer a bill of indictment against the offending parents, who have wrongfully defied the writ.

DISCUSSION IN THE EPIDEMIOLOGICAL SOCIETY.

AT a meeting of the Epidemiological Society, on Wednesday, March 8th, the President, Dr. E. C. Seaton, offered some remarks on the present epidemic of small-pox. This epidemic was the most intense that had occurred in his time; but why it should be more intense than others he did not know. Its ravages were not confined to the metropolis; but it prevailed in Liverpool, in France, in Spain, in Belgium, and especially in Holland, manifesting everywhere the same features. In the report of the Small-pox Hospital for 1870, published before the epidemic had reached its present height, he found Mr. Marson and Dr. Munk calling attention to the intensity of the epidemic, and attributing the high death-rate to the unusual severity of the disease, and to the larger number of children in the hospital than usual. How far, in these circumstances of unusual intensity, had vaccination held its ground as a protective? He believed that the faith of the profession generally was, that good vaccination served as a preventive in the vast majority of cases. But vaccination must be universal; it must be performed at an early age, and must be well performed. He had had occasion, at the opening of the session, to remark on the unpreparedness of London for an epidemic. In his experience it had always been so; as, for instance, in 1859 and 1860, and in 1863, multitudes of children as old as 4 and 5 were brought up to be vaccinated. The same was the case at the present time. He also noticed the injury done by a certain body against the cause of vaccination. In analysing the returns of deaths, he did not find the mortality under five years of age greater than in 1863; it was almost identically the same. Of adults vaccinated, he did not think that the proportion was large, but the cases attacked were singled out. Of the fatal cases, a very large proportion were unvaccinated, but there were also some deaths among the vaccinated; the question was, how many? A few years ago, when he went about examining the arms of children, he was struck with the very imperfect way in which vaccination had been done. People were now paying very dearly, he thought, for the slipshod way in which vaccination had been performed. There was something more than carelessness. Operators seemed to have aimed at a sort of vaccination-made-easy. He was glad to say that, in the large towns, a more satisfactory state of things existed. He sincerely hoped that the consequence would be that in future years the beneficial result would be seen. One thing that was indispensable now was the revaccination of adults, especially as much of the earlier vaccination had been so imperfect, and because it was probable that, in a certain portion, susceptibility to small-pox recurred after a certain age. As it was difficult to know whether a person had become thus susceptible, it became incumbent for all to be revaccinated. Dr. Seaton concluded by deprecating the putting off of revaccination until times of panic.

Dr. GRIEVE gave a brief analysis of 800 cases at the Small-pox Hospital at Hampstead under his charge, reckoning from December 1st, 1870, to February 18th, 1871. In the greater number of fatal cases, death occurred within a week. At first the accommodation in various parts was not sufficient, and this increased the mortality; yet it could not be denied that the epidemic was one of extreme virulence. A large proportion of deaths was brought about by hæmorrhagic attacks. This happened in persons over the age of puberty. His experience was that more succumbed who would have fallen victims to other zymotic diseases. Out of the 800 cases in question, he found that 591 had been vaccinated, 209 not. Without going into details, he might mention that some of those reckoned as vaccinated had been vaccinated very imperfectly. The results tended to weaken the idea that tendency to small-pox decreased with age. The number of unvaccinated persons showed a regular diminution in advancing ages. He believed that few unvaccinated persons reached above forty, without being attacked by small-pox. As to the efficacy of vaccination, his firm conviction was that it lessened the mortality, and that, where it did not absolutely ward off small-pox, it lessened its virulence, rendering the attack milder and more manageable. The outward manifestations were never so severe in the vaccinated as in the unvaccinated. Dr. Grieve said that out of the 591 vaccinated, 9.8 per cent., and of the 209 unvaccinated, 45 per cent. had died. As to the severity of the disease, reckoned by its duration, he found the average for the vaccinated to be twenty-four days, and for the unvaccinated thirty-five days. The experience of these 800 cases taught him different results from what had been laid down by the Registrar-General. He (Dr. Grieve) found that, of the vaccinated, the rate of mortality under ten years of age was 9.8 per cent.; from ten to twenty years of age, 2.8; from twenty to forty, 12.6; over forty, 22 per cent. Of those under ten years of age, there was no doubt that complications carried off a large number. Making this allowance, the figures showed that the rate of mortality increased in a marked degree after twenty, and that consequently revaccination ought to be performed at about

that age. The efficacy of revaccination was proved conclusively from the fact that it had given perfect immunity to the officers at the Small-Pox Hospital and the Hampstead Hospital. As to the class of persons attacked by disease, he might mention that they were those whose avocations brought them most into contact with all sorts of persons. This showed the necessity of isolation, in order to prevent the spread of disease. But he hoped to be able to develop this point when the epidemic was over and he had more leisure. Comparing the mortality of the vaccinated with that of the unvaccinated at various ages, he found that of the 800 in question there were :

Under 10 years,	51 vaccinated cases ; of these	5 died.
"	" 103 unvaccinated "	54 "
From 10 to 20,	211 vaccinated "	6 "
"	" 46 unvaccinated "	13 "
" 20 to 40,	389 vaccinated "	38 "
"	" 56 unvaccinated "	26 "
Over 40,	40 vaccinated "	9 "
"	" 4 unvaccinated "	3 "
Total,	591 vaccinated "	58 "
"	209 unvaccinated "	96 "

Among those entered as vaccinated, were some on whom it was evident that the vaccination had been very improperly performed. These he hoped to be able ultimately to classify. Dr. Grieve added that the present number of admissions did not betoken any diminution in the epidemic. He concluded by expressing a hope that the present epidemic would do good, and form the boundary-stone between the present system of local self-government and that of centralisation under a proper head.—Dr. Ross's experience showed him that vaccination wore out after a certain time. He found that revaccination succeeded in direct proportion to age. That there could be no charge against stational vaccination, he thought to be proved from the fact that the epidemic had not been among infants, but among those of an advanced age.—Mr. JULIUS LEVY asked a number of questions as to the manner in which vaccination ought to be performed, and complained that sufficient attention was not bestowed upon the subject in the schools.—Mr. ADAMS found that revaccination succeeded much more readily at the present time than was the case formerly. He strongly advocated revaccination.—Dr. WALLACE had had at Shoreditch 265 cases. The number of deaths was 25,—6 in vaccinated and 19 in unvaccinated persons. These were not all the deaths, because a number of cases, generally the worst, had been sent to the hospitals. His experience went against the view of the Registrar-General, that the power of vaccination was not lost by age.—Mr. MARSON compared his own returns with those of Dr. Grieve, and remarked how nearly they approximated. Of 751 cases during six months, 618 were vaccinated, and 133 not vaccinated. Of the vaccinated, 9 per cent. died; of the unvaccinated, 44 per cent. The two results were thus singularly near. His experience of thirty-two years proved that the mortality increased very much in the class that had no marks to show. Unless vaccination reached the stage of areola before small-pox was taken, there would be no modification at all. It was of no use to vaccinate after small-pox had appeared. They had had very few cases of revaccinated persons during thirty-five years; there might have been two or three deaths, and in these the vaccination was not very perfect. The statement that revaccination succeeded according to the time that had elapsed since primary vaccination, was an error. Those who took it best were young women about 19 or 20, irrespectively of other considerations. Dr. Marson remarked that, in his returns, for seventeen years, he showed that the rate of mortality in the unvaccinated was 50 per cent. As age went on, the mortality increased among the unvaccinated.—The Secretary, Mr. RADCLIFFE, asked whether nurses who had had small-pox needed revaccinating.—Mr. MARSON said his custom was not to revaccinate in such cases. But it was necessary to question them very carefully, as mistakes were often made.—Mr. LITTLE complained that, while provision was made for paupers, there was no place to which to send respectable servants when attacked, even when the masters undertook to pay for them; and this tended to spread the disease. He likewise advocated thorough disinfection of clothes, bedding, and other articles. Mr. Little recommended Fraser's apparatus, which Dr. Ross said was in use in his parish.—Dr. DIXON recommended the imparting of information to the people, in a popular way, so as to lead them to realise the advantages of vaccination. He had given lectures on the subject in his own parish, and the interest shown had been very great.—Dr. WHITMORE showed how the parish of Marylebone had not been slow to make provision against the epidemic, and how effectively vaccination had been carried out, when, upon instituting an examination, he found that 12 to 13 per cent. of the children he examined were not properly protected. Of 500 adults lately vaccinated by him, not five per cent. failed to take. Persons who had had

small-pox took as well as others.—Dr. STALLARD pointed out, from the statement of Dr. Brewer at the Asylum Board, that provision was made in the hospitals for those, also, who were not paupers, but the latter class were taken in preference, because the necessity for isolation was considered most imperative in their case. Not 50 per cent. in the metropolitan hospitals were paupers at all.—In his reply, Dr. GRIEVE strongly censured over-stimulating in treating small-pox, as tending to bring on hæmorrhage. In answer to a question as to how long the infection lasted, his rule, he said, was that the patient should remain not less than three weeks.—Mr. MARSON said, that one could not tell for certain when the infection ceased. Persons might give the disease by their breath; this was the most ready means of infection. For this, one must go very near to the person. He had had experience that the range of infection was something under fifteen yards.

SIR,—It would appear that the present epidemic of small-pox, as a set-off against its ravages and the panic occasioned by it, is opening the eyes of the British public to the necessity for *revaccination*. Such, at least, is the inference which I am disposed to draw from the increasing attention given to this measure of late by various organs of public opinion, as well as from the question having been mooted in a recent manifesto of the College of Physicians of London; and I begin to indulge the hope of living to see an expedient I have long advocated, both publicly and in private, admitted to a place commensurate with its importance, and obtaining what experience has shown to be the only efficient patronage of the work of sanitary reform amongst us—*enforcement by law*.

But it is not sufficient for the attainment of this desirable end that professional opinion in favour of revaccination is becoming general. The discovery of Jenner languished for many a long year under a bare conviction, or, at best, a very imperfect practical recognition of its value, before the principle of *legal compulsion*—already so encouraging in its results—was adopted; and, to secure for the community the full protective influence of *cow-pox*, our law-givers should be told, by the combined voice of those entitled to speak to the point, that, if *compulsory vaccination* is wise, *compulsory revaccination* is no less so. At no time could such an appeal be more opportune than now, when we have the promise of amended legislation on the subject in the present session of Parliament; and our senators require a less uncertain sound to guide them in the matter than that given forth in the document already referred to. "The practice of repeated or periodic revaccination," it is there said, "does not appear to be generally necessary." On what grounds does this guarded, if not hesitating, assertion of the sufficiency of a single revaccination rest? I confess myself ignorant of any which can fairly be said to lend it support; for surely the immunity of certain inmates of the Small-pox Hospital, as announced by Mr. Marson in Reynolds's *System of Medicine*, is too slender a peg on which to hang a conclusion of such moment in its practical bearing—especially as we are not informed *how long* these revaccinated "nurses and servants" remained afterwards at their employment in the Hospital, exposed to the contagion of small-pox. We find, however, in the above quotation an admission that repeated revaccination is not *always* unnecessary; and the exceptional cases are afterwards specified in these terms:—"In instances where a person after revaccination has been exposed to serious constitutional or climatic changes, and is subsequently more than ordinarily exposed to the infection of small-pox, a further revaccination may properly be advised."

Now, in answer to the implied doctrinal teaching of this avowal, I would ask—Can it be predicated of any person, whatever his health-antecedents, in whom the lease of protection has presumably run out, that he shall escape the infection of small-pox if at all exposed to it? The reply of those best acquainted with the surpassing activity of the variolous poison, will undoubtedly be, no. And the other avowal by the College, that the protective power of cow-pox remains unimpaired under some hygienic conditions, but is exhausted under others, will not be deemed less open to question. Finally, the subjects of this alleged preparation for the reception of small-pox are counselled to seek protection from "a further revaccination" only when "exposed" to infection. Would not ordinary prudence and forecast dictate the buckling on of our armour before the enemy is at the gates, or may even have possession of the citadel? It is a bold thing to criticise so freely the utterances of such a body as the London College of Physicians; but there are higher considerations than those of delicacy involved in this matter.

During the greater part of a long professional life, I have held, and, where practicable, have acted on the belief, that the protective power of cow-pox is of limited duration, but may be renewed in any given instance by vaccination performed at proper intervals throughout the lifetime of the individual; and I have never met with anything to shake, but, on the contrary, much to confirm, that belief. My failures in revaccinating have been scarcely, if at all, more frequent than in first vaccinations, when from eight to ten years and upwards have elapsed between the operations; nor has there been, as a rule, any perceptible deterioration of the pustules produced in these circumstances. When vaccination was performed at much shorter intervals, the not unusual result has been total failure or an aborted pustule: and here, I believe, we have the explanation of the large percentage of failures where bodies of men, as in the army, are revaccinated on entering the service without respect to their first or former vaccination. I may add that the process has been thrice repeated on myself, at intervals of about ten years, and has each time taken thoroughly.

A reasonable inference from such facts appears to be, that continued vaccination is requisite in order to secure continued protection from small-pox; they seem, also, to point to the further conclusion, although they may not be sufficient to establish it, that somewhere near ten years is the proper period at the lapse of which vaccination should be repeated. This idea was first suggested to me many years ago by Small-pox Hospital Reports (to which I regret to say I cannot now give the reference); and, in the words of Archbishop Secker, "truth proposed is much more easily perceived than without such proposal it is discovered."

An additional recommendation to a thorough system of repeated vaccination is that it would enable us to rectify previous omissions and miscarriages from the employment of effete lymph, lymph taken at an improper stage of vaccinia, or from a spurious pock; and so, betimes, bring every man, woman, and child in our land completely under the ægis of the great prophylactic. I have elsewhere (in *The Practitioner*) stated my views regarding the working details of such a measure, pointing out an easy and inexpensive method of carrying it out.

Keith, March 11th, 1871.

I am, etc., R. TURNER, M.D.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Queen's Hotel, Birmingham, on Thursday, the 30th day of March, 1871, at o'clock P.M. *precisely*.

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary*.

13, Newhall Street, Birmingham, March 15th, 1871.

WEST SOMERSET BRANCH.

THE spring meeting of the above Branch will be held at the Railway Hotel, Taunton, on Thursday, March 30th, at 5 P.M.; J. CORNWALL, Esq., President.

Gentlemen intending to be present at the dinner (at 5 P.M.), or to read papers afterwards, are requested to give notice to the Honorary Secretary.

W. M. KELLY, M.D., *Honorary Secretary*.

Taunton, March 4th, 1871.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT SOCIETY.

THE next meeting of this Society will be held at the Crystal Palace Hotel, Norwood, on Thursday, March 30th. The Chair will be taken at 4 P.M. by Dr. DUKE.

Papers, etc., are promised by Dr. Braxton Hicks, Dr. Galton, Dr. Adams, Dr. Dalton, etc.

Dinner at 6 P.M.

HENRY T. LANCHESTER, M.D., *Honorary Secretary*.

Croydon, March 12th, 1871.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE fourth ordinary meeting of the session was held at the York House, Bath, on Thursday evening, March 2nd. C. H. COLLINS, Esq., past President, occupied the Chair in the unavoidable absence of C. BLEECK, Esq. There were present twenty-eight members and two visitors.

New Member.—Dr. Wigan of Portishead was unanimously elected a member of the Association and of this Branch.

The late Dr. Symonds.—Dr. E. L. Fox, in a most feeling speech, alluded to the death of Dr. Symonds, and concluded by proposing the following resolution, which was seconded by Mr. J. S. BARTRUM, and carried unanimously.

"That the members of the Bath and Bristol Branch of the British Medical Association are deeply affected at the loss of their distinguished associate and past President, John Addington Symonds, M.D., and beg to express their hearty sympathy with the family of the deceased."

Papers.—1. Mr. WAUGH read a paper on Compound Dislocation of the Hip-joint. This elicited remarks from Messrs. Stockwell, Collins, Prichard, Crossman, and Board.

2. Dr. Swayne read a paper on the Use of Obstetric Instruments. Messrs. Mason, Leonard, Parsons, Collins, and Barnes, made observations.

3. Mr. MASON read a report of a case of Diphtheritic Conjunctivitis in a child aged 8 months. The child recovered from measles in August last. Shortly afterwards, a false membrane closely surrounding each eye, and having the form of the lids, was seen. This continuing to grow, the child was brought for advice at the end of September. At the end of October, there was a sudden increase in the symptoms of the disease, when both eyes were rapidly destroyed, and at the same time white membranous patches were observed on the gums around the incisors, which were just appearing, and on the frænum of the tongue. In November, the child had scarlet fever, attended with discharge from the nostrils and ears, from which it recovered without there being any perceptible difference in the condition of the eyes. The child at the present time (March 2nd, 1871) is strong and healthy; but, in spite of all the remedies employed, the false membrane continues to form on the conjunctiva, apparently taking the place of healthy epithelium. Mr. Mason considered this to be an exceedingly rare form of disease in England, the only cases he could find recorded being those mentioned by Mr. Prichard, in a paper published at p. 981, vol. for 1857, of the BRITISH MEDICAL JOURNAL; and a case by Mr. Hutchinson, in the second volume of the *Ophthalmic Hospital Reports*. Dr. Mackenzie, in the second volume of the *Ophthalmic*

Hospital Reports, and *Medical Gazette*, vol. xxxv, p. 594, objects to the name Diphtheritic Ophthalmia, considering the exudation to be only one of the symptoms of the ophthalmitis which may follow measles, scarlatina, small-pox, etc. In the cases mentioned by Mr. Prichard, Dr. Mackenzie believes the ophthalmia was the result of scarlatinal poisoning.

4. Dr. PARSONS read a paper on Catarrhal Inflammation, on which Dr. Fox made some remarks.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL AND CLINICAL SECTION.

THE fourth ordinary meeting of the Session was held on January 27th, 1871. Present: FURNEAUX JORDAN, Esq., in the Chair, and thirty-one members and visitors.

1. Mr. JOLLY brought before the Society a man aged 45, on whom he had performed primary Amputation of the Left Foot after Chopart's method, dividing subcutaneously the tendo Achillis. Acupressure was employed to arrest the hæmorrhage. The stump healed kindly, with the exception of the occurrence of secondary hæmorrhage at the end of the first, second, and third weeks. The bleeding was temporarily arrested by digital pressure upon the common femoral artery, but was ultimately controlled by raising the limb above the level of the body, flexing the knee to the fullest extent, and the constant application of ice to the stump. The patient recovered with a well-formed stump, amply covered by non-adherent and moveable soft parts. Mr. Jolly pointed out the great advantages which this operation possessed over Syme's or Pirogoff's amputation at the ankle-joint, and said that the objections to Chopart's amputation of the foot might be overcome by dividing at the time of the operation the tendo Achillis, keeping the stump in good position during dressing, and making the plantar flap of sufficient length to prevent dragging upon the stump.

2. Mr. OLIVER PEMBERTON exhibited a very hard Lithic Acid Calculus measuring two and a quarter inches by an inch and three quarters in diameter. The stone had been removed by lateral lithotomy in a patient aged 73, of very stout habit, and with great enlargement of the prostate. The patient had declined the cutting operation in the first instance, and, despite advice, had insisted on crushing. An angle of the stone was caught and broken up and passed to the last fragment, but the remainder could never again be seized by the lithotrite. The altered shape of the stone soon rendered life, with its presence in the bladder, intolerable; and the patient begged to be cut. Recovery was without a drawback. Mr. Pemberton drew the attention of the Section to the fact that the dimensions of the stone in its two diameters exceeded that of the crushing capacity of the lithotrite, so that it could alone have been seized whilst resting on its narrow edge. The case was further remarkable for exhibiting the tolerance of crushing measures with a large prostate, although at the same time cases of this kind were unsuited to the operation of lithotomy.

3. Mr. FURNEAUX JORDAN made some remarks on his recent case of Subcutaneous Action of the Neck of the Femur, and shewed diagrams illustrating the operation.

4. Dr. MACKAY exhibited a Fibrous Tumour of the size of an egg, removed from the uterus of a widow aged 55. The first symptoms of "bearing down" and irregular menstruation appeared twelve years before, but were not severe till after violent exertion at churning eight years ago. The tumour was diagnosed six years ago at the General Hospital, but an operation was refused. She was able to do her work as house-keeper, with the help of pessaries, till six months ago, when, after hurried running, the "bearing down" and the pain in the back became very great, and the flooding almost constant. At the operation (at which Mr. T. H. Bartleet kindly assisted) the tumour was drawn down by vulsellum-forceps, the small chain *écraseur* passed over its neck just within the uterus, then chloroform was given, and the division was completed in ten minutes. The divided part was two and a half inches in circumference, and the tumour contained unstriped muscular tissue. There was some arterial hæmorrhage in the middle of the operation, but it did not require treatment. The patient recovered without a bad symptom, and was at her work in ten days.

5. Mr. F. TURTON (Wolverhampton) showed a Fibrous Polypus, about the size of a large egg with a thick pedicle, which he had removed by the wire rope *écraseur* from the anterior surface of the cervix uteri. Before the polypus had emerged from the uterus, the lips and cervix of which were ulcerated, the case had been mistaken for cancer. When the patient came under Mr. Turton's care, she was so exhausted from long continued hæmorrhage that there scarcely seemed to be a chance of recovery. The removal was attended with no hæmorrhage, no bad symptoms followed, and the patient steadily recovered her strength.—Mr. C. J. BRACEY mentioned three cases in which he had removed

polypi from within the uterus by means of the Marion Sims *érascur*, which he considered by far the best instrument for the purpose.

6. Dr. SAWYER exhibited the Urinary Organs of a young man who had died of Phthisis. The left ureter was dilated throughout its entire course, being about two inches in circumference; the pelvis of the left kidney was distended, and the substance of the organ thinned. A calculus of the size of a pea, and composed of uric acid, was found occluding the ureter at its point of entrance into the wall of the bladder; the vesical orifice of the tube was normal. The other kidney, the bladder, and the urethra were healthy.

7. Mr. LAWSON TAIT showed two Mammary Tumours, which had been sent to him for opinion. One was an ordinary scirrhus cancer, but the other was the finest specimen of proliferous cystic growth which he had ever seen. He proposed to make a careful examination of the specimen and communicate the results to the Section at the next meeting. He also showed the stump of an antler, broken off at the corona. From the margin of that excrescence an effort of nature had caused a bud to run up in semblance of a horn. He showed also some sticklebacks with peculiar tumours composed of small ovoid bodies endowed with a motion more than Brunonian, and completely indestructible by any chemical agent that he had tried; the strongest caustic soda only rendering them a little less distinct. They were, therefore, not fungoid.

CORRESPONDENCE.

THE TEACHING OF PSYCHOLOGICAL MEDICINE AND MENTAL PATHOLOGY AT EDINBURGH.

SIR,—All who have read the article in the JOURNAL of February 25th headed "Our Asylum Systems, No. 1," and who have even a limited knowledge of the questions discussed, must appreciate highly the views advocated by the writer. The only remarks upon which I think serious exception can be taken are those in reference to teaching; but, even as to these, I incline to think that, if the writer had made himself as well acquainted with teaching as with asylum practice, the result of his inquiries would have been different. There cannot be a doubt that the study of insanity should constitute an essential part of the practice of medicine; and it may be open to question, as the writer well alleges, whether special courses of lectures on insanity exclusively are not in themselves mistakes, on the ground that their tendency is to inculcate in the mind of the student the theory that insanity ought to be more or less dissociated from the ordinary study of the practice of medicine. If, however, as I understand the writer, it is intended that insanity should be included in the ordinary course of the practice of medicine, then, after an experience of nearly a quarter of a century as a teacher, I can say that such a plan is inexpedient. There is at least one asylum superintendent, a member of the Association, who attended my lectures on the Practice of Medicine, when I gave the utmost effect to this plan by taking my class to see cases of insanity at an asylum. The rapid development of a new school of cerebral physiology and pathology (in which I have had my share) rendered it year by year necessary for me to introduce into practice something more intelligible than the old empiricism as to mental diseases, until at last at Edinburgh, during the winter session of 1857-58 (being my third session at this University), I set apart one lecture in each week for a distinct course of *Practical Psychology*. In the summer of 1858, I was requested by the Senatus Academicus to give a summer course of lectures on *Medical Psychology*, which I did in the following year (1859). To this course I subsequently added the practical study of mental diseases at an asylum. On looking over the class-rolls of these summer courses, I find that three hundred and nine students have entered their names, and that the class-roll of last summer numbers thirty-one.

Any one who takes a broad view of what should be included in this department of the practice of medicine, will soon discover that insanity, in the restricted sense of the term, and as found in asylums, is only one of its divisions. To use your writer's phrase, there are numerous diseases not included in insanity in which "psychical abnormalities are the leading symptoms." The hunger and thirst of diabetes, the anorexia and thirst of fever, the thirst of pain, the *bizarre* appetites and psychical impulses of gravid and hysterical women—nay, pain itself in any form, or however named, are illustrations of many "psychical abnormalities" of great practical importance, to be discussed scientifically in all their relations to disease and cure. Add to such topics as these the practice of medicine as to attention and memory, brain-work and sleep, the effects of pain, the uses and abuses of pleasures, and all that is included under causes of mental diseases and their prevention and removal as

mental hygiene, and I think two points must become clear; viz., that a special course is needed, and that course must include much more than insanity, from even the pathological point of view. It must not be forgotten, however, that in general etiology and therapeutics the reciprocal relations of body and mind play so important a part, that accurate observation of the causes of disease, and of the effects of remedies is not possible without a sound knowledge of those relations.

Having acted upon these views, the result, I repeat, of long experience as a teacher of the practice of medicine, and endeavoured to make medical psychology applicable to all specialties as well as to medicine in general, I think I may justly question the accuracy of the following unqualified assertion by the author of "Our Asylum Systems, No. 1," "A third proof of the divorce of mental from bodily disease by the highest medical authorities is the fact that in no single school of medicine in Great Britain does any teacher of practice of physic treat systematically, in his regular course of lectures, of those diseases of which psychical abnormalities are the leading symptoms." In answer to this statement of a "fact", I subjoin the syllabus of my systematic course of Medical Psychology, which is an essential, albeit a distinct, part of my course on the Practice of Medicine in this University. The whole course, clinical and practical, occupies about forty lectures, but these are too few for a thorough treatment of the subjects. I have the less hesitation in asking you to be so good as to print that syllabus, because I think it is of the utmost importance to the development of this department of medical science, that its real scope and extent should be known.

I cordially express my full concurrence with the writer's views as to hospital clinical teaching. I have long laboured to obtain this for our Edinburgh school, and I am glad to announce that provision to this end will be made in the new Royal Infirmary. It will, perhaps, be more limited than may be thought desirable, and than I set forth in a memorial which I addressed to the Building Committee on this and other matters of clinical teaching; but I doubt not that the opportunities for psychical study and teaching will be enlarged as public opinion becomes more enlightened, and the new school of cerebral physiology and mental philosophy more advanced.

I am, etc.,

University of Edinburgh, March 4, 1871.

T. LAYCOCK.

Syllabus of the Summer Course of "Medical Psychology, with Practical Instruction in Mental Diseases." By Professor Laycock. (From the *Edinburgh University Calendar*, 1870-71, p. 99.)

"As to the course of Medical Psychology—1. The first part of the course will comprise an exposition of the relations of psychology proper to the laws of life in general and the functions of the brain in particular. 2. Special forms of mental disorder will be treated of in succession, commencing with the disorders of the animal appetites. This part of the course will be illustrated by cases and physiognomical photographs and drawings. 3. Sleep, dreams, and hallucinations will have a philosophical and practical consideration. 4. The laws and defects of memory [including attention] will be specially examined, and the pathology of the higher faculties, illustrated by numerous examples of the handwriting, composition, and art-products of the eccentric and insane [crazes and eccentricities are included in this division].

"As to the course of Clinical Instruction in Mental Diseases:—This will be carried out at an asylum, where the diseases of the insane will be investigated and lectures delivered on special cases. [The students are practised in the drawing up of certificates of insanity.] In the course of the summer the class will visit and study the management of a public asylum in Scotland or England."

THE LATE DR. SYMONDS.

SIR,—The lamented death of Dr. Symonds induces me to send you an extract from an interesting letter in my possession, addressed about twenty-five years ago to a lady-member of my family. The style and the sentiments expressed will be recognised as characteristic by those who enjoyed his friendship.

"I am glad you enjoyed Taylor's vigorous poetry. I thought you would. . . . There is very ancient authority for uniting Poetry and Medicine, though the moderns are dead against it, excepting Shelley, who, in his beautiful Hymn of Apollo, makes the god say,

'All harmony of instrument or verse,
All prophecy, all medicine, is mine.'

"I agree with you in thinking Taylor's strictures on Shelley too severe, though I go with him in his anti-Byronism, and don't think there is any *prettiness* in Shelley. If anything, he seems to me often at fault in expression, as if his ideas were too shadowy or ethereal to be fixed in words. In much of his composition there are vexatious evidences of haste or feebleness of execution. One sometimes even traces the hard compulsion of the rhyme; and I can't forgive him for occasional Cock-

neyisms—*e. g.*, making America rhyme to day. But these are trifles, compared to the glories and triumphs of his verse. *Alastor* has always struck me as one of the most complete of his poems; and, to say nothing of the images, the harmony of the numbers is richer than anything I know in blank verse, always excepting the divine music of *Paradise Lost*, which is like the pealing organ of your minster. The wonderful music of Milton is only to be felt by reading it aloud; and then you perceive that it consists not merely of smooth melodious lines, but, as my friend Sir Charles Elton (himself no mean poet) appositely expresses it, 'the harmonious sweep of concatenated periods'. But I am prosing on poetry. Forgive me; and, above all, do not betray me. Nine-tenths of the world would not let me prescribe for them, if they thought I cared two straws for poetry. So pray take it as a proof of great confidence and regard." I am, etc.,
Falmouth, March 1871. DANIEL H. TUKE.

THE SUBCUTANEOUS DIVISION OF THE NECK OF THE THIGH-BONE.

SIR,—In my recently published book I have described four operations for bony ankylosis, three of which are subcutaneous, and one only, namely, the first mentioned, which is known as Barton's operation, is by open wound; and I refer to two cases, one of which is placed in the third category, as an illustration of subcutaneous osteotomy with the formation of a false joint; and the other comes into the fourth category, which comprises operations for the rectification of a distorted position of a limb; and I mention that the former of these operations was done by making in the first instance an external incision to the extent of two and a half inches, and that in the second the external opening was only sufficiently large to allow the use of the smallest saw. The first-mentioned operation was performed at the hip in 1861, and the second was done on the first metatarsal bone in 1865.

Passing over various misstatements and exaggerations which Mr. Adams has introduced into his last letter, I will place side by side my paragraph to which reference is made, and that of Mr. Adams, in which he alludes to it, that your readers may judge whether his deduction is fair.

"4. Where it is not desired to obtain motion, but only to rectify a false position of the limb, the bone may be divided subcutaneously, and an improved position may be given. I performed an operation of this character, with the assistance of Dr. Richard Brown and Mr. Potter, in the year 1865, and have subsequently had occasion to repeat it. In the present year Mr. W. Adams has, at the Great Northern Hospital, also in a similar manner cut through the neck of the thigh-bone." (*Deformities of the Human Body*, p. 152.)

The following is Mr. Adams' reference to this statement.

"Mr. Brodhurst's operation in the year 1865, on which he rests his claim in his work *On Deformities*, p. 152, was by inference assumed by me to have been performed on the hip-joint, since it was placed in juxtaposition with my hip-joint operation, and used by Mr. Brodhurst in his argument as being of a similar character."

Now, sir, I contend that Mr. Adams has no right whatever to assume what he has done with regard to my operation, nor to make the statement that I rest my claim to subcutaneous osteotomy on this operation. If he had never heard of my case of division of the neck of the thigh-bone, there might be some excuse for his statement; but not only have I talked of it with him, but he evidently knows more than I have told him, for he says that I made "free use of the saw, chisel, and gouge", in performing this operation. This, however, is entirely a mistake. In bringing my case before the first medical Society in the metropolis, I consider that I did all that was necessary to establish my claim.

Mr. Adams brought his case before various societies—before the Association, for instance—and in his abstract the following occurs.

"The author referred to the various operations which have been proposed and adopted for bony ankylosis of the hip with deformity, such as Rhea Barton's operation, and also that proposed by Louis Sayre of New York, which he had performed in two cases."

Barton's operation was, perhaps, sufficiently distinct from that of "the author" to enable him to mention it. It consisted of a crucial incision over the great trochanter seven inches in length and five inches in a horizontal direction. With a fine saw he then divided the bone transversely between the two trochanters. Judging from his abstract it would appear that Mr. Adams at that time (it was published September 1870) knew nothing of any other cases.

Proceeding with his abstract, we find that "no inflammation whatever had followed the operation; and the author, therefore, felt justified in comparing this operation of the subcutaneous division of bone, or subcutaneous osteotomy, with the subcutaneous division of tendons". Clearly, then, this was entirely an original idea. Mr. Adams, having

divided tendons subcutaneously, determined to divide bone in the same manner, and, seeking about for a term to describe his operation, he found *subcutaneous osteotomy*. If there is any meaning to be attached to the above description, it is that which I have given to it.

But, unfortunately, Mr. Adams had previously described this same case before another Society—the Medical Society of London—where, instead of the description being "no inflammation whatever had followed the operation", the report is as follows: "On the 7th December" (the operation having been done on the 1st December) "a few drops of pus only escaped from the superficial wound. December 22nd. No febrile symptoms or deep suppuration going on; the superficial wound nearly healed. There never has been more than two or three drops of pus on the lint in the morning. He got up to-day for the first time, just three weeks since the operation."

Referring back to Mr. Adams' indignant letter of March 4th, the following occurs relating to my case: "If operations of this magnitude", etc. (for he is shocked at mine of two and a half inches), "are to be called subcutaneous operations, then I must confess myself to be entirely ignorant of the principles and practice of subcutaneous surgery, the very essence of which consists in the small size of the external wound, and the entire seclusion of air from the divided structure, whether tendon, muscle, nerve, or bone, by which means we insure a more simple and more perfect reparative process than in open wounds, as well as freedom from suppuration, with all its attendant dangers."

It is really quite a pity, sir, that Mr. Adams did not reserve his case and the remarks he had to make upon it until the Association meeting. He might then have made his remarks as to suppuration and no suppuration agree.

Mr. Adams performed his operation with a saw "three-eighths of an inch in width, with one inch and a half cutting edge, at the end of a small shank three inches in length."

I have before me, whilst I write, two specimens of bony ankylosis at the hip, from St. George's Hospital museum. They are marked third series—III, and III A, and they are the finest specimens I know. The following are the descriptions from the museum catalogue.

"III. Portion of the right side of the pelvis, showing complete bony ankylosis of the hip-joint in an extremely unnatural position, the femur being directed upwards. The bony union is quite complete, and there is also complete fusion of the anterior inferior spine of the ilium with the trochanter minor and neighbouring part of the femur, so that the femur is united to the whole front of the ilium, with the exception of a small oval aperture which still exists between the bones. The specimen was removed from the body of a young woman who died in the hospital of disease unconnected with the joint."

"III A. Innominate bone and part of femur, showing bony ankylosis in an unnatural position, the femur being directed forwards. The union is quite complete. The preparation was removed from a man, aged 23, who had suffered from disease of the hip for fifteen years."

In the latter specimen, the circumference of the ankylosis is six and a half inches, and in the former it is six inches and one-eighth. In both instances the new deposit is as hard as ivory. The top of the trochanter occupies a position higher than that previously occupied by the head of the bone, and the neck of the bone is almost absorbed. In the Hunterian Museum at the College of Surgeons there are four specimens, marked respectively 3325, 3326, 3327, and 3327 B, which differ only slightly, if at all, from those I have already described.

Having described the width of his saw, before the Association meeting, as three-eighths of an inch, Mr. Adams describes it in his letter to you (February 18) as "a quarter of an inch". Now, one-eighth of an inch is important in such an operation. We may suppose three-eighths of an inch to be the correct measure. Of what size must the external opening be, to allow a saw three-eighths of an inch in width so to work as to divide bone six inches in circumference? It may be that union has so taken place that a straight section may be made. Sometimes, however, it is otherwise, as it was in the case on which I operated at Brighton, and as it is represented in the specimen III to which I have already alluded. With such a disposition of the parts it is absolutely necessary to alter the direction of the saw when the bone is in part cut through; but this can only be done by having an external opening equal to such alteration of direction. This fact has been recognised by those who have practised and written on subcutaneous osteotomy long before Mr. Adams' attention was directed to the subject; and they have acknowledged the necessity of varying the size of the external opening according to the circumstances of the case.

But, on referring to the JOURNAL of December 24th, 1870, we find Mr. Adams' view of the neck of the thigh-bone, as he is supposed to have cut through it. Of course there can be no difficulty in cutting through the neck of the bone, unaltered as it is there described. Whilst that shape was preserved, it is very unlikely that bony ankylosis had

taken place. But this operation was instituted for bony ankylosis. From the description given by Mr. Adams, it is clear that very little alteration had taken place in the neck of the bone.

I examined this patient, Luke Bristowe, at the Royal Orthopædic Hospital, when he was under the influence of chloroform, and I came to the conclusion and expressed my opinion that it was a case of rigid fibrous ankylosis. I confess that I was astonished to hear that in such a case section of the femur was resorted to.

I am happy, sir, to think that I did not commence this correspondence. I should not have taken any notice of the case if Mr. Adams had not attacked me; but I think it will now be seen that his "perfectly new and original operation" for subcutaneous osteotomy might perhaps with advantage have been dispensed with.

I regret that it has been necessary to write such a long letter; but, before I conclude, I must ask you to correct a slight error in my last letter. In a quotation from my case of subcutaneous division of the neck of the thigh-bone, the following occurs: "The wound healed in *about* its entire extent." It should be, "The wound healed in almost its entire extent by the first intention, and in three weeks it was firmly cicatrised, so that passive motion could be freely employed."

I am, etc.,

B. E. BRODHURST.

London, March 7, 1871.

THE MARRIAGE OF CONSUMPTIVES.

SIR,—Your criticism of Virchow's report on the marriage of consumptives has been so ably and truthfully supplemented by Dr. C. J. B. Williams and Dr. Robert Barnes, that the question may be considered as negatively decided on the very best English authority. A few additional remarks on the subject, however, may be excused from one who has had considerable experience—on the one hand as an obstetric physician, on the other as a consulting physician, now for many years in a winter resort for the consumptive.

I entirely agree with the physicians who have preceded me: marriage is undoubtedly a source of great danger to the consumptive young, male and female, but the danger does not, in my opinion, proceed from the same cause in both sexes, and it is well that this fact should be pointed out and recognised by the profession. In women, sexual indulgence, as such, even if carried rather beyond the bounds of discretion, does not try or fatigue the constitution to any great extent. Even to the consumptive female it merely becomes a source of actual danger when it induces uterine disease, or is followed by pregnancy, confinement, and nursing, with the attendant shock and drain on the vitality. I quite agree with Dr. Barnes that phthisis is constantly accelerated and rendered fatal thereby. I have seen very many instances of the kind, and consider pregnancy a most unfavourable complication of phthisis, and always dread its co-existence. As, likewise, five women out of six who marry prove fertile, the danger of marriage to an actually consumptive female is very great indeed; no physician, indeed, can conscientiously advise it.

With men, the danger is from another cause. It lies principally in their want of discretion, in their frequent want of power to control their sexual desires in married life, and in the absolute want of a moral or religious sexual standard for married people in society as it is now constituted. Here I approach a very delicate question, but I think that it ought to be faced and discussed. As a gynæcologist (the modern phrase) of very considerable experience, I have no hesitation in endorsing the statement repeatedly made to me by my friend, Mr. W. Acton, viz., that there is much more sexual excess in married life than out of it. I have constantly had to contend with this difficulty in the treatment of female disease, and that in all classes of society. It would really appear as if the marriage tie were a sanction for any degree of sexual indulgence, with not only the light and frivolous, but with many who are considered good, pious, and conscientious. It has long been a source of surprise to me, and I have often regretted that delicacy—perhaps false delicacy—should leave the fact entirely unnoticed in professional writings. It is this fact, however, I believe, that constitutes the chief danger of marriage with young men who are consumptive, or who have a latent tendency to consumption. They often run riot, as it were, exhaust their organic powers, and fall victims to a disease of essentially lowered vitality, which they might have conquered or avoided had they remained single, or even been discreet as married men. I am never without illustrations of these physiological and pathological facts in my practice.

The above questions, however, can scarcely be considered as other than theoretical disquisitions; for, as Dr. C. J. B. Williams implies, we are not often consulted, and when we are consulted, our advice is seldom followed. Thus children are born tainted with constitutional weakness; and, as Dr. Barnes justly states, very many of them die teething, or

from children's diseases, or grow up merely to become victims to the same malady as their parents. The latter cannot give them what they have not to give—vitality, strength, health, so their span of life is short; the Fates weave them but a short thread, which soon comes to an end. Not but that, through soundness of health on the side of one parent, and by means of hygienic nurture, education, and occupation, even in such cases life may often be prolonged to its normal term. Thus hope is still left us.

The practical bearing of these facts, if true, as I believe them to be, is obvious. A young man with a tendency to consumption, or a consumptive who has recovered, may marry and have children, who may be strong and live; but then he must marry a young healthy woman, of a good healthy stock, born and bred in the country, he must be discreet in married life, and he must bring up his children hygienically, in the country, devoting them to country pursuits. Whilst he is still acutely consumptive, it is an act of madness and cruelty for him to marry, thereby exhausting his ebbing vitality, bringing miserable diseased children into the world, and turning his helpmate into a nurse.

With the young female in the same state the danger is much greater, as one or more pregnancies may be expected, which may, and very likely will, fatally precipitate the issue of events. In the actual practice of life, however, I find that all these considerations have little or no influence over people's actions, unless it be in the case of the very young under the absolute control of reasoning parents. Consumptives marry, and will continue to marry, I believe, just like other people; consulting affection and worldly considerations, and showing supreme indifference to our vaticinations. With some of the gentlest and best of each sex, dire disease in the one they love is merely an additional inducement to marriage. They long to devote their lives to the object of their affections, and no vista of disease, suffering, and death, terrifies them.

Such being the case, the natural and divine laws which regulate the well-being of the earth and its inhabitants, regardless of their wishes and actions, come to the rescue and prevent the "degeneracy of the race." As is the parent, so is the offspring; like begets like. The diseased parent begets diseased children; who, not being fit to continue the race in its integrity, die off like plants that perish before they blossom and seed, and the earth remains the heirloom of the strong. Viewed in this light, consumptives may and do marry, and probably will marry, as others; thus enjoying the affections of conjugal life and of paternity like the rest of the community, albeit for a short term.

Is a short life, however, philosophically, such a very great calamity? The statement made by the Nestor of Medicine, "*Vita brevis, ars longa*," has been generally accepted as a truth; but is the first part really true? Is human life "short" when prolonged to its ordinary healthy duration, three score and ten years? I have often thought that this part of the axiom is utterly false, that a life thus prolonged is a very long one indeed as compared with the lives of the animals around us, and of most of the vegetable productions of the earth. Even if we measure it by political events, by social changes, what a long series of both does the memory of the man who can look back fifty years run over! How many winters he has seen, how many harvests he has helped to consume! Even a child that dies at eight or ten has lived the entire life of a domestic animal; infancy, youth, middle-age, old age. Under favourable circumstances, also, the child has had a happy, joyous time, free from cares and anxieties. Does the father or the mother, who through this child have known the pleasures of paternity and maternity, regret having had it?

Thus, even if consumptives discard our advice and marry, unwilling "*propter vitam perdere causas vivendi*"—all comes right in the end, and the human race does *not* degenerate.

I am, etc.,

HENRY BENNET, M.D.,

Formerly Obstetric Physician to the London Free Hospital.
Mentone, March 4th, 1871.

FASTING OF NEW-BORN CHILDREN.

SIR,—IN the JOURNAL for February 25th, Mr. Dixon asks, "Is it possible or probable that a newly born child would survive during twenty-four hours the total deprivation of all nourishment?" The reply must be decidedly affirmative. The breasts of very few women yield anything whatever during the first twenty-four hours after delivery; and, as is well known, the secretion of milk is usually not established until the third or fourth day. I apprehend that, if food were absolutely necessary for the existence of children during the first twenty-four hours of their life, Nature would provide it.

I once had a patient who for the first week after her delivery had no milk whatever, and the child utterly rejected all else that was given to it. I directed that the child should be kept very warm during its deprivation of sustenance; and, although it dwindled in size, it remained

healthy and active until the mother gave milk, when it throve well. I have repeatedly seen similar instances of deprivation for shorter periods, and have always found that, provided the infants were kept warm, no harm ensued.

As a rule, I do not permit nurses to give milk or gruel; and I always prohibit the administration of "butter and sugar", "foods", and other abominations to newly born children. If the mothers' breasts yield nothing, the children get nothing until the natural time for the establishment of lactation has arrived. If the formation of milk fail, of course the infants are artificially fed. I am inclined to think that very young babies, not the newly born, are less able to resist prolonged fasting than infants under a week old, whose vitality, if they be kept warm, is amazing. It is interesting to note, in connexion with this subject, that the colostrum, or first secreted milk, is very rich and fat; and thus a large amount of heat-forming material is rapidly afforded to the system as soon as the infant gets it.

It is worthy of remark, too, in connexion with the case mentioned by Mr. Dixon, that Samaria is a warm country, and newly born infants would probably suffer less inconvenience from fasting there than in a colder climate. I am, etc., ALFRED WILTSHIRE, M.D.

56, Wimpole Street, Cavendish Square, W., March 1871.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN.

AT a meeting of the Chamber of Agriculture to be held at the Salisbury Arms on the first Tuesday in April—Sir Massey Lopes in the chair—the subject of Poor-law Medical Relief will be discussed in its national economic relations. Application has been made by influential members of the Chamber to the Poor-law medical officers' Association for information bearing on the subject, which has been duly furnished; and the discussion will be opened by a statement from Dr. Rogers expressing the views of the Association, as already detailed in this JOURNAL. Sir G. Jenkinson, M.P., and Mr. Corrance, M.P., and others, have expressed their intention of taking part in the discussion.

AN EAST-END JURY.

WE have to note with pain that a Poor-law medical officer in the East of London has been committed by a coroner's jury for manslaughter, on account of alleged culpability in respect to the death of a lying-in woman. Without entering into details, we may state that the jury relied upon the evidence of Mr. George Phillips, surgeon, who made the *post mortem* examination, and who is reported as having stated that the circumstances showed "either a great amount of ignorance or great carelessness". The coroner declared that, even on this evidence, the charge did not amount to crime, and that the verdict would be nullified by the decision of the superior court. But the jury insisted on their verdict, observing that the medical officer had treated them with contempt in not attending, and they would make him go where he would be compelled to answer. The verdict is, therefore, intended as a punishment for contumacy, rather than for the offence charged. The medical officer has, perhaps, under these circumstances, reason to be thankful that, in the spasm of offended dignity, the jury did not charge him with wilful murder. As it stands at present, it is a verdict of "Manslaughter—for non-attendance on a coroner's jury."

THE DAWN OF SANITARY REFORM.

THE Poor-law medical officers of Kensington have submitted to the Vestry the desirability of appointing them as a staff of district medical officers of health, in lieu of filling, by a single and separate appointment, the vacant position of officer of health for the district. This suggestion, they point out, is in accordance with the recommendations of the Royal Sanitary Commission and the Poor-law Medical Officers' Association. They dwell with just emphasis on the excellent results in Ireland of the combination of preventive with curative functions in the dispensary medical officers. They have laid before the Vestry the recent numbers of the BRITISH MEDICAL JOURNAL containing information on this subject. They point out that in Fulham a similar system has been adopted for some years with excellent results.

A HINT TO RURAL GUARDIANS.

THE example of the guardians of the Leicester Union may, in one respect, be recommended to other Boards. One of the greatest blots in

the rural workhouse infirmaries is the low quality of the nursing. It would be hard to name a more dangerous defect, or one more likely to counteract good intentions and liberal arrangements, where such exist. At Leicester Workhouse Infirmary, Dr. Clarke has undertaken since 1867, with the consent of the guardians, a system of training nurses in the wards, on a regularly organised plan. So successful has it proved, that one of the nurses so trained is now a superintendent nurse in the male infirmary; a second is at the schools; a third at the Blaby Union; a fourth at the Rugby Union. Two are now in training. Dr. Clarke now proposes to the guardians to have these women taught the art of preparing nicely the most useful special articles of dietary for the sickward, and indicates the means of extending the system by which paupers are redeemed from uselessness and destitution, and made to play an useful part in the world. It may appear, on the surface, that such a scheme involves great difficulties. The best answer to such an objection is the practical success attained at Leicester. Here nurses are trained in excess of the wants of the wards, and the results are excellent. This speaks, indeed, well for all concerned. It is at once a pledge of good order in the wards, and an indication of more than ordinary enterprise and intelligence in the managers. More than one neighbouring infirmary has been supplied, since 1867, with nurses trained at Leicester Infirmary.

VACANCIES.

BOOTLE UNION, Cumberland—Medical Officers and Public Vaccinators for the Workhouse, the Bootle District, the Millom District, and the Muncaster District.
CAMELFORD UNION, Cornwall—Medical Officer for the Boscawen District.
HOXNE UNION, Suffolk—Medical Officer for the Saxsted District.
ORMSKIRK UNION, Lancashire—Medical Officer for District No. 4.
PLOMESGATE UNION, Suffolk—Medical Officer for the Framlingham District.
ST. IVES (Hunts) UNION—Medical Officer and Public Vaccinator for the District of Somersham.
SLEAFORD UNION, Lincolnshire—Medical Officer for the Osbournby District.
WESTRAY, Orkney—Parochial Medical Officer.
WOOLWICH UNION, Kent—Medical Officer for new Workhouse at Plumstead.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

SANITARY FUNCTIONS OF POOR-LAW MEDICAL OFFICERS.

THE following form has been issued by the Sanitary Committee of the Dublin Corporation, to be handed to the sanitary inspectors by the dispensary medical officers.

I hereby certify that the cleansing and disinfecting of the room in No. , and of the bedding and clothing of , now ill of , would prevent the spread of infectious or contagious disease. Medical Officer of No. Dispensary. Dated this day of 187 . To , or the owner or occupier of .

GRATUITOUS MEDICAL RELIEF TO SERVANTS.

THE question whether a servant in the employment of a gentleman is eligible for gratuitous medical relief, has been lately brought before the Irish Poor-law Commissioners by the Waterford Guardians. The Commissioners have, in reply, stated that the Medical Charities Act limits the relief to be given, under its provisions, to "poor persons," and gives no further definition, leaving the determination of the fitness of any particular person as an object of such relief, to those persons who are authorised to issue tickets, subject to the power of the majority of members of the committee to cancel any ticket issued to a person whom they may consider not a fit object. The Commissioners further point out that every master is liable for the cost of the maintenance of his servants, while relieved in Workhouse Infirmary or Fever Hospital, so long as the service shall continue.

VACANCIES.

BALTINGLASS UNION, co. Wicklow—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Rathvilly Dispensary District.
CAHERCIVEN UNION, co. Kerry—Medical Officer for the Emlagh Dispensary District.
CALLAN UNION, co. Kilkenny—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Kilmoganny Dispensary District.
GALWAY UNION—Medical Officer and Public Vaccinator for the Spiddal Dispensary District.
DUNSLAUGHLIN UNION, co. Meath—Medical Officer for the Dunboyne Dispensary District.
TULLAMORE UNION, King's County—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Kilbeggan Dispensary District.
WESTPORT UNION, co. Mayo—Medical Officer for the Islandeady Dispensary District.

OBITUARY.

JOHN SLOAN, M.D., DEPUTY INSPECTOR-GENERAL, R.N.

DR. JOHN SLOAN, who died at his residence at Stoke, near Devonport, on February 18, at the age of 62, entered the Navy as Assistant-Surgeon on December 10, 1828. A few days afterwards, he was appointed to the *Cornet* sloop on the East India Station, and was in April 1832 transferred to the *Southampton*, flagship of Rear-Admiral Sir E. Owen, on the same station. Having left this ship in January 1833, he was appointed in June of that year to the *Forte*, and subsequently, from that time to January 1839, served in that and other ships on the West Indian Station. During this time, from August 29 to December 26, 1834, he served as Acting-Surgeon of the *Racer*. In February 1840, having been promoted to the rank of Surgeon, he was appointed to the *Clio*, and served during the first war in China, being present at the taking of Ningpo and other places. The *Clio* was paid off in October 1844; and in February 1845 Dr. Sloan proceeded to Australia in charge of the convict ship *Tory*. From February 1846 to March 1849 he was in charge of the Hospital at the Isle of Ascension. After this, from June 1849 to August 1858 he served successively in the *Hague*, *Ajax*, *Conway*, and *Saturn*, on the home station; and in November 1860, was appointed, as Staff-Surgeon, to the *Royal Adelaide* at Devonport, from which he was superseded at his own request in August of the following year. On April 20, 1866, Dr. Sloan was promoted to the rank of Deputy Inspector-General, and was placed on the retired list. In recognition of his long services, he was in receipt of a Greenwich Hospital pension.

THOMAS WATERFIELD, M.D.

WE have to record the death of Thomas Waterfield, M.D. which took place at his residence in Brompton on Sunday, March 5. He was born at Daventry, in Northamptonshire. His father had long enjoyed the confidence of a large surrounding district as a medical practitioner; and, as he lost his sight a few years before his decease, the practice was carried on by his son. After the death of the father, the subject of this notice relinquished the practice, and, finding himself in possession of a sufficient fortune, entered as a Fellow Commoner at Christ's College, Cambridge, where his younger brother was already Fellow and Tutor of Emmanuel. Dr. Waterfield resided at Cambridge in 1821 and 1822, and then proceeded to his degrees of M.B. and M.D. He settled in London in Charles Street, St. James's, and became Physician to the public dispensary. He became a Fellow of the College of Physicians, and served the office of Censor in 1833. He was then, chiefly through the influence of his intimate friend, Sir Charles Locock, appointed a Commissioner in Lunacy, the duties of which office he performed conscientiously and with great credit until the new Lunacy Act reduced the number of Commissioners to three, and the three seniors were retained. He then took up his residence at Brompton, where he enjoyed the society of a small circle of intimate friends, who valued him for his strict integrity and amiable gentlemanly manners. He was one of the early members of the Oxford and Cambridge Club, in which he always took an active interest. In politics, he was a tory of the old school; his opinions being, at the same time, strongly modified by liberal and enlightened views. His loss will be long and deeply regretted. He has left an ample fortune to collateral relatives.

THOMAS BLADES, L.R.C.P. Ed., SHAP, WESTMORLAND.

MR. THOMAS BLADES died on the 23rd February, at Shap, in the thirty-first year of his age. He was a pupil of his uncle's, the late Mr. William Dawson Blades, a surgeon of Blackburn, Lancashire, and afterwards of Kirkby Stephen. He studied at the Andersonian University, Glasgow, and became L.F.P.S. Glasg. and L.R.C.P. Ed. and L.M. in 1864. He commenced practice in Shap in 1865, and was elected Medical Officer of the Shap and Morland Districts, West Ward Union. He was greatly beloved by all with whom he came into contact. His death is greatly lamented by all the inhabitants of Shap and its surrounding neighbourhood.

JOHN T. GRANTHAM, M.R.C.S., CRAYFORD.

WE regret to announce the premature death of this surgeon, who, as well as his father, had many years practised in the village of Crayford. Mr. Grantham was in the full exercise of his duties up to the end of last week, when he was suddenly stricken down. He had been com-

plaining of symptoms resembling intermittent fever, which caused great prostration. On Monday he was better, but the next day he was seized with delirium, and died, apparently from exhausted powers of the heart.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Monday, March 13th.

SMALL-POX HOSPITAL AT BATTERSEA.—Mr. Peek asked the Secretary to the Poor-law Board whether it was the intention of that Board to erect a small-pox hospital upon any portion of the surplus lands of Battersea Park, and whether any application had been made to the First Commissioner of Works for a grant of land for that purpose.—Mr. Hibbert said that an application had been made to the First Commissioner of Works to ascertain whether a small-pox hospital could be erected, but further than that the Poor-law Board had not committed itself in the matter.

SMALL-POX HOSPITALS.—Mr. G. Hardy asked whether the late President of the Poor-law Board was correctly reported to have said to a deputation from Islington, that "the Metropolitan Asylums Board could not do more work in the way of providing hospitals for small-pox cases"; and if so, upon what grounds he made the statement.—Mr. Göschén said he did not make the statement in the broad terms indicated by the right hon. gentleman; but he (Mr. Göschén) had pointed out the extreme difficulty of procuring sites for such hospitals, or even of getting men on committees to search for them, or to revise the plans.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, March 9th, 1871.

Elder, George, General Hospital, Nottingham
Penkivil, John Hugh, Cranbrook, Kent
Pritchard, Richard Henry, Treborough, Somerset
Martin, Richard Johnson, Little Hulton, Lancashire

The following gentleman also on the same day passed his first professional examination.

Robey, Peter John, Queen's College, Birmingham

MEDICAL VACANCIES.

THE following vacancies are announced:—

BIRMINGHAM GENERAL DISPENSARY—Resident Physician & Secretary.
CHORLTON-UPON-MEDLOCK, RUSHOLME, and MOSS SIDE DISPENSARY, Manchester—Honorary Dentist.
DERBY COUNTY ASYLUM—Assistant Medical Officer.
DUNDEE ROYAL INFIRMARY—Joint House-Surgeon.
EGLINTON IRON COMPANY, Muirkirk, Ayrshire—Surgeon.
HOSPITAL for WOMEN, Soho Square—Assistant-Physician.
LINCOLN COUNTY HOSPITAL—House-Surgeon and Apothecary.
LIVERPOOL DISPENSARIES—Two Assistant Resident House-Surgeons.
LIVERPOOL LADIES' CHARITY AND LYING-IN HOSPITAL—House-Surgeon.
LONDON FEVER HOSPITAL—Assistant-Physician.
METROPOLITAN FREE HOSPITAL—House-Surgeon.
MIDDLESEX HOSPITAL MEDICAL COLLEGE—Lecturer on Physiology.
NEWPORT (Monmouthshire) INFIRMARY—Resident Medical Officer.
QUEEN'S COLLEGE, Birmingham—Medical Tutor.
ROYAL SURREY COUNTY HOSPITAL, Guildford—Assistant Honorary Medical Officer.
ROYAL UNITED HOSPITAL, Bath—Honorary Physician.
ST. PANCRAS, Middlesex—Medical Officer for the School at Leavesden.
SEAMEN'S HOSPITAL (late *Dreadnought*), Greenwich—House-Physician.
SWANSEA HOSPITAL—Resident Medical Officer.

[For Poor-law Vacancies see Poor-law Department.]

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*ROBINSON, Rawdon B., Esq., appointed Medical Officer to the Workhouse of the Dulverton Union, *vice* W. Trevor, Esq., resigned.
WRIGHT, Henry R., M.B., appointed Medical Officer of the Knaresborough District of the Knaresborough Union, *vice* James Walker, Esq., resigned.

EAST CORNWALL HOSPITAL, BODMIN.—The account read at the annual meeting showed that £110 was due to the Treasurer.

YEATMAN HOSPITAL, SHERBORNE.—The Hon. Lucy E. Portman has given £350, in memory of her late sister, the Hon. Louisa Portman. The Dowager Marchioness of Westminster has given £50.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.

SATURDAY St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Mr. Jabez Hogg, "On Cataract and its Treatment by the Semilunar Corneal Incision"; The President (Dr. Andrew Clark) will narrate some cases of Perityphlitis, and exhibit a case of Peribronchial Fibrosis; Dr. Sansom, "Case of Scarlatina and Variola coexistent."—Social Science Association (Adam Street, Adelphi), 8 P.M. Dr. Guy, F.R.S., "On Vagrancy; its Nature, Causes, and Cure: with special reference to recent Legislative efforts bearing upon it."—Entomological Society.

TUESDAY.—Pathological Society of London, 8 P.M. The following specimens will be shewn:—Dr. Payne, Cancerous Growth in Veins and Endocardium. Mr. Spencer Watson, Cystic Epithelium removed from the Cheek. Dr. Wickham Legg, Glandular Tumour growing on the outside of the Jejunum. Dr. Payne, Suprarenal Capsules, etc., from a case of Addison's Disease. Dr. Clapton, Atrophy of the Cerebellum; etc.

WEDNESDAY.—Hunterian Society, 8 P.M. Dr. Thompson Dickson, "On Epilepsy."

THURSDAY.—Royal Society.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Duffin, "Case of Roseola Variolosa"; Mr. Christopher Heath, "On a Case of Complicated Stricture of the Urethra treated by Mr. Syme's Operation for Impermeable Urethra"; Mr. Teevan, "The Treatment adopted in a Case of Retention from Impassable Stricture"; Dr. Broadbent, "Phosphorus as a remedy in Skin-diseases."

EXPECTED OPERATIONS AT THE HOSPITALS.

LONDON HOSPITAL, Saturday, March 18th, 2 P.M. Mr. Maunder will Ligature the Subclavian Artery.

HOSPITAL FOR WOMEN, Saturday, March 18th, 9.30 A.M. Ovariectomy, by Dr. Meadows.

KING'S COLLEGE HOSPITAL, Saturday, March 18th, 2 P.M. Excision of the Knee-joint, by Sir W. Fergusson; Removal of Os Uteri, by Mr. Wood; Operation for Varicose Veins of Leg, by Mr. H. Smith.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

THE communication of Dr. Beales (Congleton) shall have early insertion.

WE shall be glad if Dr. Balbirnie will correct the misrepresentations to which we referred last week, and which he admits, in the place where they appeared. Beyond that, he may, we think, be content with the publicity given to his views in the organ which he preferred.

DR. McRAE asks for information as to the charges for house-to-house visitation, in searching for unvaccinated persons, in a country district; also as to the fee for re-vaccinating patients at their own homes.

INCONTINENCE OF URINE.

SIR,—IN answer to "G. H. S.," I wish to state that I had a similar case in a boy, aged 12 years. He had been troubled with incontinence for years, day and night. With a view of detecting stone, I passed a sound, under chloroform, into the bladder, but failed to discover one. His urethra being small, he suffered considerable pain in passing urine for some days afterwards, but the incontinence gradually left him. It is now a month since, and he has not wetted his bed or passed urine oftener than natural. How far the dread of a repetition of the examination has had to do with the cure, I leave you to judge.

March 9th, 1871.

I am, etc.,
W. A. T.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. F. H. HEATHCOTE, not later than Thursday, twelve o'clock.

SIR,—Will you kindly tell me, in your answers to correspondents, whether a gentleman who in 1860 passed the L.S.A. of London, and then went to Glasgow and became a "Licentiate of the Faculty of Physicians and Surgeons", is right in signing himself "Physician and Surgeon?" if not, what is his proper title? By doing this you will much oblige me.

I am, etc., C. B. H. SOAME.

Dawley, March 4th, 1871.

** Yes.

THE UNIVERSITY OF ST. ANDREW'S.

SIR,—"Probe" asks, with reference to the proposed examinations for the degree of M.D., "If the examination approached in stringency that of the London University, as under the proposed conditions it must, who would go to St. Andrew's?" It must be remembered that the University of London shuts her gates against all who have not matriculated prior to commencing their medical studies; it is not sufficient to pass the matriculation examination, but four years must subsequently be spent at a medical college, and hence all practitioners, however well up in both general and medical knowledge, and fully competent to pass all the examinations for the M.D. Lond., are absolutely excluded because they did not matriculate prior to their commencing their medical education. Hence such a system of examinations as that proposed by the St. Andrew's Medical Association, where any practitioner, of a certain standing and ability, could obtain the degree of M.D. by passing stringent examinations, is greatly needed, and would be an incentive to study to those who desire to rise in their profession.

I am, etc.,

March 7th, 1871.

GENERAL PRACTITIONER

A CORRECTION.

SIR,—Will you allow me space in your columns to correct an error which has accidentally occurred in Mr. Heather Bigg's Report on "Mechanical Appliances, etc.," contained in the new volume (1870) of my *Reports on the Progress of Practical and Scientific Medicine in different parts of the world*? It is there stated, under the head of "Æsthesiometer", that the "original idea" of the instrument was "due to Dr. William Ogle"; this should have been "to Dr. Sieveking." "Original ideas" of value are too scarce in the present day for any one to afford to be deprived of the just title to their authorship, and I am anxious at once to correct this mistake.

I am, etc.,

84, Harley Street, Cavendish Square, W., March 4th, 1871.

THE LATE MR. M. REILLY.

DR. W. T. GREENE (London) writes:—I was truly grieved to see in the JOURNAL that the profession has sustained a very great loss, by the untimely death of Maxwell Reilly. He was, indeed, a "fearless" young man in the discharge of his duties, however onerous; and had he lived, would assuredly have attained to a very high position in the profession of his choice.

DEGREES BY PURCHASE.

SIR,—For a long time past, two unqualified practitioners have flourished in this part of London, working for a long while, I am ashamed to say, under the wing of a member of our profession—a F.R.C.S. I believe that this connection was severed some two years back; and, without their patron, they were no doubt occasionally embarrassed. Imagine the surprise with which we beheld, one fine day, a smart new plate on the door of one of these gentlemen—"Dr. ———"; and, on inquiry, we were told that by the expenditure of £30 or so, the man had actually possessed himself of the degree of M.D. from Philadelphia, Pennsylvania, or some other distinguished University "across the water." Not to be outdone by his neighbours, the second unqualified makes a similar purchase; and now mounts on his private door, beneath his red lamp, and beside his night-bell, "——— M.B." Emboldened by the success which has evidently attended these doctors, we have now a third in the neighbourhood: an enterprising prescribing chemist, who has now prefixed his name on his dispensing labels with "Dr.", and informs people that he "is now in practice." Sir, I am no protectionist, and I certainly do not mean to make myself personally busy in bringing these men to book; but I should like to know if this sort of thing is to go on with impunity unchecked, or whether the framers of an amended Medical Act mean to take the matter in hand and deal with it effectually. I expect that the subjoined advertisement, cut from the *Daily Telegraph*, will indicate the source whence the degrees mentioned above came.

"Medical Diploma.—Unregistered doctors desirous of obtaining a foreign diploma can receive instructions how to proceed by addressing Medicus, care of Janin and Co., Foreign Booksellers, 6, Exeter Street, Strand, London."

Harrow Road, W.

I am, etc.,

A MEMBER OF THE BRITISH MEDICAL ASSOCIATION.

HYDRATE OF CHLORAL.

SIR,—Whenever a new chemical agent is introduced by the medical profession, the manufacturer of the preparation must be grateful to the scientific chemist for pointing out any defect or inferiority in the quality of the article. Never, perhaps, was this more clearly the case than with the introduction of chloral hydrate, because of its decided action upon the human system, demanding an almost absolute purity, and because of the astonishing rapidity with which it has found favour. This compound, discovered nearly forty years ago by Professor Liebig, remained a chemical curiosity until, within the last two years, its medicinal value was ascertained by Dr. Liebreich; and to-day it is manufactured as an ordinary article of commerce.

Nearly the whole, if not the whole, quantity used in this country is imported from Germany. We happen to represent one of the largest manufacturers in Germany, Messrs. E. De Haen and Co., of Hanover, and we were much pleased on first seeing a paper on Chloral Hydrate reprinted in the *Pharmaceutical Journal* of the 7th ultimo, giving analysis of samples representing seven or eight different firms, including Messrs. E. De Haen and Co.; but on reading the paper we were much disappointed in finding that the writer, Mr. M., of Liverpool, had penned the article in ignorance of the matter which he was treating. He stated, as the result of his analysis, that the samples of only one house were good chloral hydrate, yielding on decomposition by ammonia very much the theoretical proportion of chloroform (72.2); whereas all the other samples were said to have yielded so little chloroform (varying from 53.6 to 56.6) that the reader was led to draw the inference that they were not chloral hydrate, but chloral alcoholate. Two of these samples were marked as De Haen and Co.'s manufacture; and as we had no doubt about the inaccuracy of the above statement, we placed our stock at the disposal of Dr. Versmann, who, from samples taken by himself, found them to be good marketable chloral hydrate, perfectly free from alcoholate. His report and analysis are published in full in the *Pharmaceutical Journal* of February 4th.

On our applying to Mr. M. for an apology for the injury done, he confessed that

one sample named as Messrs. DeHaen and Co.'s was from another house; and, as he had part of the original samples left, he suggested to send them to a chemist to act as referee, proposing at the same time Dr. Benjamin Paul, an offer which we cheerfully accepted. Dr. Paul's analysis, as below, proved Mr. M.'s figures to be totally wrong. As, no doubt, a great many of the readers of your JOURNAL have seen the paper, and may possibly have believed Mr. M.'s assertions, we feel it our duty, in justice both to the house which we represent and to ourselves, not only to publicly contradict the same, but to prove them utterly groundless; and for that reason we request the favour of your inserting this letter in your JOURNAL.

In conclusion, we may make the following remarks:—1. Chloral hydrate is extremely hygroscopic, which satisfactorily accounts for the somewhat smaller numbers found by Dr. Paul. The samples received by him were several months old, and were no doubt repeatedly exposed to the air, thereby taking up moisture. If kept in well stoppered bottles, they certainly would have given the proper percentage of chloroform.

2. The much greater yield of the sample stated to be E. De Haen and Co.'s, when analysed by Dr. Paul, and the smaller yield of the manufacture stated to be Liebreich's, in comparison to Mr. M.'s analysis, show that the analysis of manufactures of all good makers gives about the same results. The ammonia test for chloral hydrate, simple as it is, and, in fact, any analysis laying claim to correctness, ought only to be published after several trials of one and the same sample, carefully and scientifically made, have shown the same results. Before publicly comparing the products of respectable houses, particularly when a new article is in question, application for information ought to be made to them. Such information will always be most readily given.

Results of Analysis of Chloral Hydrate.

Dr. B. Paul. Mr. M. (Liverpool).

No. 1. } Stated to be {	66.62	71.5
3. } Liebreich {	67.36	70.3
8. } Stated to be De Haen and Co.'s {	64.37	55.6

I am, etc., DOMEIER AND CO.

47, Basinghall Street, London, E.C., February 22nd, 1871.

CHLORAL HYDRATE IN ACUTE MANIA.

SIR,—In answer to Dr. C. H. T., who asks for the most convenient vehicle for administering and covering the flavour of the hydrate of chloral (JOURNAL, December 24th), I enclose the following, which I find the most convenient:—R. Chloral hydrat. 3ij et 3iij; sacchari albi 3ij; pulvis acaciæ 3ij; tincturæ cardamomi compos. 3iij; glycerini 3ij; aquæ puræ ad 3iv. M.

The sugar sweetens and, with the gum acacia and glycerine, takes off the acidity, the compound tincture of cardamoms acting as a stomachic and preventing its griping. Should I, however, have to give it to a rather fastidious lady patient, I should prefer giving it beaten up with an egg, adding a glass of sherry and sugar. A few practical hints may perhaps not be irrelevant. I prefer making the mixture myself, and only sufficient for two nights' dose. I find stout or beer the best vehicle to give it in: it is rarely refused in this form. I give half-drachm doses of the hydrate of chloral every two hours at first, and then two scruples or a drachm at night: this generally produces sleep till three or four o'clock, even in cases where every other medicine has failed. I may mention that the cases in which I have chiefly given it during the last twelve months have been insane, chiefly acute mania, where in some instances the patients have been without sleep for a week; and it acts like a charm. I consider it as a most invaluable addition to our materia medica, especially in cases of insanity. I have seen no ill effects follow its application; it does not cause (like opium and morphia) either headache, sickness, or loss of appetite; in an instance or two it would appear to check the secretions of urine; but I consider that this may be owing to great perspiration following. In a case of puerperal insanity, where there had been no sleep for a week, it produced four hours' sleep the first night, and was discontinued the fourth night.

Box, Wilts. I am, etc., JAMES GARDNER.

THE CONJOINT EXAMINATION SCHEME.

SIR,—After reading the scheme adopted by the Committee of the London Colleges of Physicians and Surgeons, also of Apothecaries' Hall, in reference to a conjoint examining board, which had been approved of by the College of Physicians, I think that it is but a poor step in the onward march of reform. Why give such a post of importance to the Apothecaries' Hall without some equivalent advantage to the Colleges? Why not merely amalgamate the two Colleges, as in Edinburgh, and make future registration recognise only gentlemen possessing two qualifications—namely, L.R.C.P. & M.R.C.S. England, or L.S.A. & M.R.C.S. England. I would strongly suggest a small alteration in the title L.R.C.P. of London, by making it M.L.R.C.P. England—i.e., Medical Licentiate of the Royal College of Physicians, England, in contradistinction to the Licentiates of the Royal College of Preceptors, London. I would also even now recommend that it should be optional on the candidate's part to take the three degrees, but two should be compulsory—either the M.L.R.C.P. & M.R.C.S. England, or L.S.A. & M.R.C.S. England. Let there be, as now, only two examinations, and let the fees payable for two degrees be twenty-one guineas, and for the three, thirty; that for the first examination being eight guineas. Allow, also, all rejected candidates a second trial, as now, at the College of Physicians. I would further advise that those who may be rejected at the final examination, have returned to them, or be credited with, eight guineas out of the thirteen; that the examiners retain five for their trouble; so that at the expiration of six months' resuscitation, the candidate, on re-entering his name, should pay five guineas. Hoping that such may partly meet your approval,

I am, etc., J. FOLEY EVANS.

Victoria Street, Sheffield, February 28th, 1871.

DISINFECTANTS.

SIR,—A communication on "Small-Pox and Scarlet Fever Disinfectants," contained in the BRITISH MEDICAL JOURNAL of February 25th, asserts doctrines which are to me so strange that I beg to inquire where the writer has obtained his facts. In the first place, a paper of Mr. Crace Calvert's in the *Chemical News* is criticised, the experiments there recorded being styled "worthless for any purpose whatever." The communication of Mr. Calvert's was supplementary to, and confirmatory of, some observations of mine entitled "Evidence concerning the Germ-Theory of Fermentation afforded by the action of certain substances when suspended in the air." (*Chemical News*, November 18th and 25th, 1870.) I think it just possible that your contributor, Mr. Charles Roberts, has misapprehended the scope and tendency of Mr. Calvert's experiments. I am not, however, Mr. Calvert's apologist; I have not the pleasure of his acquaintance; I know him only from the eminent value of his scientific labours.

When Mr. Roberts endeavours to explain the *modus operandi* of disinfectants, a subject which he says has got into a sad state of confusion, I see only worse confusion than ever. It is asserted that carbolic acid, in common with chloride of zinc,

chloralum, etc., "prevents decomposition by excluding septic agents, by chemically combining with the albuminous elements, or by simple mechanical obstruction", whilst sulphurous acid, chlorine, etc., destroy septic agents. I should say that the tendency is precisely the reverse. From all the evidence which has been accumulated, nothing known is so potent to *destroy* septic agents (*i.e.*, to poison them, to deprive them of vitality) as carbolic acid; whilst chemical oxidising or deoxidising disinfectants, though attacking and decomposing the evolved products, are far less energetic in their action upon the producing causes of septic change. (Cf. Report of Mr. Crookes to Cattle-Plague Commissioners, Part II. Lemaire, *De l'Acide Phénique*, 2de Ed., p. 153, *et seq.*) Of carbolic acid, Mr. Roberts asserts that Mr. Crookes "failed to prove that it checked the spread of cattle-plague." Proof in such a case may be very difficult, but it is scarcely possible to read Mr. Crookes's report without being convinced, as Mr. Crookes himself is, of what he terms "the wonderful disinfecting powers of carbolic acid." Mr. Roberts considers it probable that carbolic acid owes its powers as an antiseptic to its property of coagulating albumen, and implies that by this faculty it is a poison to living things. In the first place, according to my own experience, it is quite wrong that "very dilute solutions of carbolic acid coagulate albumen." On the other hand, I find that the strongest aqueous solution that can be made (5 per cent.) fails to precipitate albumen from solution. In some cases, an opalescence or granular appearance is produced, which resembles albuminous coagula; but a careful examination shows that this appearance is due to multitudes of refracting particles of carbolic acid, and not to albumen. Mr. Crookes says, "it is evident that the two acids do not owe their special action to their coagulating powers on albumen." (See, also, Lemaire, *De l'Acide Phénique*, p. 154.)

It may be regarded as established by a great number of observations that when carbolic acid induces death in animals, at least from *Batrachia* upwards, it is *not* by coagulating the blood. (Lemaire, p. 100. Paul Bert and Jolyet, "Recherches sur l'action de l'acide phénique", *Gaz. Méd. de Paris*, 1870. Neumann, *Arch. für Dermatologie und Syph.*, vol. i, p. 224.)

There must be confusion in our notions of disinfection whilst we are at variance in our views of infection. If we agree, as I believe we must, that the phenomena of infection and of putrefaction (which process is acknowledged to be a source of infection) are alike due to the operation of vitalised molecules, our ideas concerning disinfection will be clear. We shall acknowledge that the energy of a disinfectant is measured by its power as a poison to septic agents, and that the energy of action upon the products of putrefaction (deodorisation) is no indication of the energy of action upon the disposing causes (disinfection).

To determine what is the best disinfectant under various conditions, is a complex problem. From much experimental investigation, I am led to conclude that, where it is a question of disinfecting *air*, carbolic acid is by far the best agent to employ; but where the materials to be disinfected are mingled with *water*, the soluble metallic salts, especially the chlorides, are much to be preferred. I hope soon to lay before the profession in detail my reasons for holding the opinions which I have thus briefly enunciated.

I am, etc.,

A. ERNEST SANSOM, M.D. Lond.

29, Duncan Terrace, March 3rd, 1871.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, Feb. 25th; The New York Medical Record, March 2nd; The Boston Medical and Surgical Journal, March 2nd; The Madras Mail, Jan. 2nd; The Shield, March 11th; The Philadelphia Medical Times, Feb. 22nd; The Philadelphia Medical Independent, Feb. 25th; The Bath Chronicle, March 2nd; The Epsomian for February; The Brighton Examiner, March 14th; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. R. Turner, Keith; M.R.C.S.; Dr. Massey, London; Dr. Jones, St. George's Hospital; Mr. Weaver Jones, Cleobury Mortimer; The Secretary of the Social Science Association; Dr. E. L. Fox, Clifton, Bristol; Mr. T. J. Ashton, London; Messrs. Nye and Co., London; Dr. V. C. Clarke, London; The Secretary of the Clinical Society; Mr. G. Handcock, Leeds; The Secretary of the Pathological Society; Mr. Fairlie Clarke, London; Mr. F. H. Harris, Mildenhall; Mr. W. A. Thompson, Oxford; Dr. Cobbold, London; Mr. J. H. Hemming, Kimbolton; Dr. G. H. Philipson, Newcastle-upon-Tyne; Dr. John Sibbald, Edinburgh; The Secretaries of the Association of Medical Officers of Health; Dr. Lanchester, Croydon; Mr. R. B. Robinson, Dulverton; Mr. C. F. Maunders, London; The Secretary of the Hunterian Society; Dr. Alfred Meadows, London; Dr. Arthur Mitchell, Edinburgh; Dr. Heywood Smith, London; Dr. Priestley, London; Mr. Richard Davy, London; Mr. T. Watkin Williams, Birmingham; The House-Physician of the Hospital for Women; Dr. Lauder Brunton, London; etc.

LETTERS, ETC. (with enclosures), from:—

Sir James Alderson, London; Dr. Laycock, Edinburgh; Dr. S. Gee, London; Dr. Protheroe Smith, London; Mr. Erasmus Wilson, London; The Librarian of the London Institution; The Secretary of the Manchester Medical Society; Dr. Bradbury, Cambridge; Mr. N. A. Woods, London; Dr. Fussell, Brighton; Dr. Sloan, H.M.S. *Northumberland*; Dr. S. A. Plumbe, Maidenhead; Dr. J. D. Gillespie, Edinburgh; Mr. W. F. Teevan, London; Dr. G. H. B. Macleod, Glasgow; Dr. J. Milner Fothergill, Leeds; Mr. B. E. Brodhurst, London; Our Liverpool Correspondent; M.D.; Mr. Stephen Mackenzie, London Hospital; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Our Dublin Correspondent; Messrs. Ferris and Co., Bristol; Mr. Rigden, Canterbury; Dr. J. Braxton Hicks, London; Mr. Lord, Hampstead; Mr. J. P. Caesar, London; Dr. Hardie, Manchester; Mr. Hodgson, Brighton; Mr. Langton, Liverpool; Dr. Routh, London; Dr. W. H. Day, London; Dr. Philipps, London; Dr. W. R. Rogers, London; Dr. Arthur W. Edis, London; Dr. G. Bantock, London; Dr. Cotton, London; Dr. R. Beales, Congleton; Dr. Ross, Elgin; Dr. Hannay, Dublin; Mr. James Ray, Lowestoft; Mr. Furneaux Jordan, Birmingham; Dr. H. R. Wright, Knaresborough; Dr. Balbirnie, Sheffield; Dr. Balthazar Foster, Birmingham; Mr. Benson Baker, London; Mr. F. Godrich, London; Surgeon-Major Atchison, London; Dr. Goddard Rogers, London; Dr. John Dixon, Bermondsey; Mr. W. K. Parker, London; Our Manchester Correspondent; Dr. W. T. Black, Bath; Mr. P. H. Holland, London; Mr. J. W. Plaxton, Infirmary, Hull; Iota, Edinburgh; etc.

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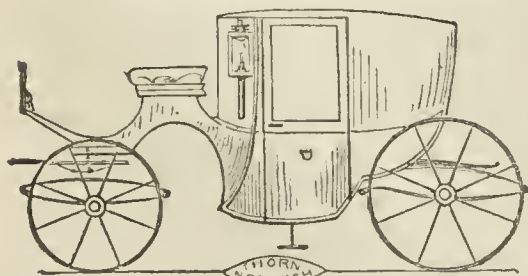
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GULSTONIAN LECTURES ON THE HEAT OF THE BODY.

DELIVERED AT
The Royal College of Physicians, London,
MARCH 1871.

By SAMUEL J. GEE, M.D., F.R.C.P.,

Assistant-Physician to St. Bartholomew's Hospital and to the Hospital for Sick Children.

LECTURE II.

THE ways and means by which the body gains and loses heat having now been discussed, it remains for us to consider the balance struck between these processes; namely, the temperature of the body. Knowledge upon this subject could not advance beyond a certain point, until the thermometer was invented. Before this time, real and metaphorical heat were confounded. For example, in the investigation concerning the nature of heat, which occupies so large a part of the second book of the *Novum Organon*, Lord Bacon places, among instances agreeing in the nature of heat, oil of vitriol, spirits of wine, aromatics, nay, even intense cold. In like manner the last of the writers upon innate heat, Conringius, in his book published in 1647, maintains that vegetables produce heat. At first sight this seems a remarkable anticipation of a fact supposed to have been discovered in much more recent times. But what does he mean by heat? that pepper is hot and ginger is hot. Before this time, in 1625, Sanctorius had described an air-thermometer, but nothing could be done until Römer and Fahrenheit invented the mercurial thermometer.

It was De Haen, the Dutchman, whom Van Swieten wisely induced to settle in Vienna, who first seriously applied the thermometer to pathology, or indeed to physiology. Year by year the *Ratio Medendi* of De Haen published the results which he obtained by using the thermometer; I allude to the 2nd, 3rd, 4th, 6th, 7th, 10th, 11th, and 12th volumes of the *Ratio Medendi*, and also to the tract *De Februm Divisionibus*. In the *Ratio Medendi Continuata*, many cases of febrile disease are narrated at full length, with thermometrical observations made every day, night and morning. De Haen believed that the natural temperature of the body ranges between 96 deg. and 98 deg. Fahr. He knew that this temperature was much the same at all ages; he knew that the temperature rose during the cold stage of ague—a remark in which, however, he had been anticipated by Haller. He rejected the current Boerhaavian doctrine that the heat of the body was due to the friction of the blood; and he founded his objection upon two facts. First, he had noted that the temperature of a paralysed limb might fall as low as 73 deg., the pulse remaining good all the time; and he declares “that the heat resides in the part, independently of the blood”—that is to say, independently of the friction of the blood. Secondly, he had observed the remarkable fact that the temperature of the body sometimes rises at death; “but,” quoth De Haen, “the greatest heat of all was found in a man during the agony of dying, at the time of death, and some time after he had ceased to live. During the whole of an acute illness, this patient's temperature had not risen above 103 deg., but at the time of death, and for two minutes afterwards, a heat of 106 deg. was noted”: and he goes on to narrate another case of the same kind.

The Vienna of that day was famous in begetting and forgetting great discoveries: De Haen and medical thermometry, Auenbrugger and percussion. De Haen's case is particularly hard. His method slept till thirty years ago.

The temperature of the body being the balance struck between the heat gained and the heat lost, we might expect to find that the temperature of all parts of the body is not the same; that those parts which set free most heat should be hottest, and that those parts which lose most heat should be coldest: and observation shows that this is the case.

So far as the generation of heat is concerned, we have already seen that the glands during secretion, the muscles during work, and the blood which comes from the lungs, are the warmest parts of the body; and that the horny tissues, in which little or no chemical change goes on, are the coldest. But you will have remarked, no doubt, that one of the largest viscera has not been once mentioned with reference to the production of heat: I allude to the brain. Now the brain is, in reality, what

Hippocrates declared it to be, of a cold nature. John Davy, long ago, found the temperature of the brain to be considerably below that of the thoracic and abdominal viscera. According to Mendel, there is in the rabbit a difference of one and a half or even two degrees Fahrenheit between the cranial cavity and the rectum—that is to say, the rectum is so much hotter. The comparatively low temperature of the blood in the vena cava is partly thus accounted for. With regard to mental activity, Lombard and Brown-Séquard declare that it raises the temperature of the head one degree Fahrenheit, whilst the temperature of the limbs falls to the same amount.

In the next place, those parts of the body which lose most heat by radiation, conduction, or evaporation, are the coldest: but, in fact, this applies chiefly to the skin; for, in the case of the lungs, we saw that the heat abstracted from them is more than counterbalanced by the heat which they set free; and the loss of heat from the upper part of the alimentary canal, caused by cold food, is a very unimportant circumstance.

Some parts being hotter, some parts being colder, it is obviously the circulating blood which is the great means by which the temperature of the body is more or less equalised. By the mean temperature of the body is signified the temperature of the blood. I will not occupy your time with the commonplaces concerning the temperature of the body: how in health the average temperature of the axilla is 98.5 deg., that of the rectum about a degree higher—say from 99.5 to 100 deg.; how this average temperature is remarkably uniform in the same individual, and, indeed, one might say, in all individuals; how any temperature in the axilla above 99.5 deg., the body being at rest, must be considered a febrile temperature; how, even in disease, the temperature rarely rises above 110 deg., or falls below 91 deg. The highest temperature ever observed in a living man is 112.5 deg., by Wunderlich, in a case of idiopathic tetanus, at the time of death. I myself saw a case of tubercular meningitis in which the temperature of the rectum remained for hours at 79.4 deg. Fahrenheit. Löwenhardt has noted a temperature even lower than this; namely, 77 deg., in a case of mania shortly before death; but whether the thermometer was applied in the axilla or in the rectum, I do not know.

Let us refer for a few minutes to those diurnal variations of temperature which are observed in healthy men. The general facts concerning these variations have been well made out. “The lowest temperature of the body occurs about day-break. At this time a rise begins, which continues till late in the afternoon, reaching its maximum at different hours in different persons, for reasons to be presently considered. The maximum reached, the temperature again falls (the fall and the minimum continue) till daybreak or thereabouts, when the cycle again begins.” I quote this summary from a useful paper by Dr. William Ogle in the *St. George's Hospital Reports* for 1866. Most observers have arrived at the same results. The differences in the actual temperatures which are observed in different individuals, and in the same individual, from day to day, can be partly explained by differences in the influence of the non-naturals, especially the external temperature, muscular exercise, and food. Increase in the amount of any of these circumstances is followed by increase of the body-heat. However, the influence of these non-naturals is small, and will not account for the whole of the daily fluctuation. Some experiments of Jürgensen are very valuable with regard to this point. He kept three persons in bed and noted their temperature every five minutes, as indicated by a thermometer passed two inches deep in the rectum. The influence of exercise and of change in the external temperature was hereby excluded, yet the daily variations which I have just described were as strongly marked as ever. And, with regard to food, Jürgensen found that perfect abstinence, even from water, maintained for thirty-three hours, did not affect the daily course of the temperature. Upon what, then, do these fluctuations depend? They certainly coincide with differences in the activity of the chemical processes going on in the body. The fact that more carbonic acid is excreted by day than by night has been long known; and more recently Pettenkofer and Voit have discovered that oxygen is stored up—that is to say, not used—during sleep. But the question still rises, Upon what do these rhythmical variations in nutrition depend? Dr. Ogle suggests that the explanation is to be found in the conditions which result in sleep or wakingness. He supposes that the rise of temperature at daybreak “may be due to a diminution in the intensity of sleep as morning approaches. The first sleep is the most profound. In it not only are the animal functions suspended, but also, to a certain extent, those of organic life. The latter are rested sooner than the former, and resume their full activity while these are still slumbering. This awakening of the organic functions occurs about daybreak, and manifests itself by quickening of the pulse, increased exhalation of carbonic acid, and consequent rise of temperature.” The daily difference of temperature between the minimum and maximum never exceeds 3.5 deg.

But, whatever be the daily fluctuations, and whatever be their cause, the mean daily temperature is remarkably uniform in the same person. Jürgensen found that the mean of seven days did not vary more than a quarter of a degree. Complete abstinence from food for thirty-three hours depressed the mean half a degree: the daily fluctuations being unaffected, as I said before. Cold baths did not affect the mean; which would serve to confirm the opinion, which shortly we shall have to discuss, that there is an increased generation of heat during a cold bath.

Let us now pass on to consider another question, namely; how is it that, seeing the factors which result in the temperature of the body are so variable, the result itself is so uniform? Yet, obviously, it is the very variability of the factors which secures the uniform result. The heat of the atmosphere which surrounds the body being variable, it is necessary that the heat set free by the body itself should vary; and vary inversely as the heat of the atmosphere. If the atmosphere maintained an uniform temperature of 99 deg., the body need not generate heat at all. But it is easy to see that a constant external temperature of 99 degs., would still require that the body should have some means of regulating its warmth, inasmuch as the characteristic function of animal life, voluntary motion, is attended by the generation of heat. And at a temperature of 109 degs. the body begins to be permanently destroyed. But, in fact, the uniformity of the body-heat is maintained by a double safeguard: our bodies can not only regulate the loss of heat, but, having to make good a certain deficit abstracted by the atmosphere, they can also regulate the supply.

The chief means, by which the equilibrium is kept, are voluntary on our part. We shall shortly find that, when the temperature of the body sinks to 97.5 degs. in consequence of an hour and a quarter's exposure to cold, violent shivering ensues. On the other hand, an internal warmth of 100 degs. is attended by an unpleasant sensation of heat. These sensations guide our volition. You will understand that I am not now speaking of diseased states, in which the sensations are perverted. We regulate the amount of heat produced by varying the food and exercise we take. We regulate the loss of heat by means of clothing and external warmth. But this voluntary balancing of the temperature of the body has reference chiefly to considerable periods of time. We wear more clothes in winter than in summer, but we do not change our clothes several times a day; we eat more food in winter than in summer, but we do not so arrange our meals as to suit the daily oscillation of our temperature and that of the atmosphere. In short, volition regulates the warmth of the body in the gross, and orders it so that the heat produced or lost shall not transgress certain limits.

But when we come to look at the finer equilibrium which the body maintains—an equilibrium, not from day to day, but from hour to hour, and from minute to minute, under sudden and frequent changes in the conditions of body-heat—we have to acknowledge the operation of an involuntary control. Accordingly, we see when the body is heated, say by muscular exercise or a hot air-bath, how the respiration becomes more frequent, how the circulation becomes more rapid, the skin full of blood and sweating. Again, when the body is cold, the skin becomes pale and bloodless, protecting the inner parts from loss of heat. By these means, any great change in the temperature of the body is provided against. But I think that presently we shall learn enough to make us suspect that this involuntary control of the body-heat is exerted within very narrow limits. Else why, so soon as the temperature of the air approaches that of the blood, do sunstrokes become common among those who neglect the voluntary means of preventing a dangerous elevation of their body-heat? And why is the naked body unable to resist, for more than an hour, an external temperature which is not lower than 60 deg.? To sum up: it is only within limits of 18 deg. or thereabouts, say from 80 to 98.5 deg. of surrounding temperature, that the body can maintain a constant temperature for any length of time without voluntary and external aid.

The powers of the involuntary control are put to the test when, in spite of the warnings of the sensations, the will is not exerted whilst heat is greatly added to, or greatly abstracted from, the body. I need not dwell upon the potential heat contained in food or air, for excess in these particulars is limited; we cannot digest much more food or air than usual, even if we would. Again, muscular exercise is limited by fatigue. But the addition or abstraction of external heat is illimitable; let us, then, investigate how the body behaves under great external heat or cold.

First, when the body is exposed to a temperature higher than itself, the surrounding medium must be atmospheric, because the body cannot bear baths of liquid which are but a few degrees higher than itself. And even an atmosphere saturated with watery vapour at 130 deg. cannot be borne. The reason of this is clear: if radiation, conduction, and evaporation from the skin and lungs be thus rendered im-

possible, what other means does the body possess of reducing its temperature? In dry air, an animal can exist for a time at 270 deg. But suppose the external temperature to be much below this extreme, and yet not lower than the body-heat; what is the effect? The temperature of the body rises. Schuster found that, in warm baths of the same temperature as the rectum or higher, the temperature of the rectum rose about two degrees. Mayer quotes from Douville the observation made upon a negro who, while lying dirty and lazy in his cabin, had a temperature of 98.6 deg., which when he lay in the sun rose to 104 deg. Ackermann found that dogs, kept in an atmosphere equal in temperature to that of the body, but breathing air of an ordinary temperature, quickly became much hotter than natural. And, reversely, when they breathed air of the temperature of the body, but were surrounded by an atmosphere of ordinary heat, their temperature rose likewise, but much less quickly than in the previous experiment. The effects of more prolonged exposure to heat have been studied by Walther; and experiments of this kind afford an excellent means of noting the effects of a high temperature, simply as a high temperature, upon the body. Rabbits and dogs, when tied to a board, and exposed to a hot sun, reach a temperature of 114.8 deg., and then they die. The frequency of the pulse and breathing increases enormously; there is a heat-dyspnoea. This dyspnoea ceases rapidly when the animal is plunged into cold water; or when cold defibrinated blood is injected into the jugulars. Artificial respiration has no power to diminish the dyspnoea, even when pushed so far as to render the venous blood of an arterial colour. When death draws nigh, the frequency of the respiration diminishes, the action of the heart becomes extremely weak and rapid, cyanosis and muscular cramps ensue. The temperature continues to rise after death, and may even reach 122 deg. Fahr. After death, the muscles are found stiff as if cooked; the heart in a state of diastole, the blood venous, the internal viscera full of blood. I wish that the microscopical examination of the tissues of animals killed in this way had been carried further; much light would thereby have been thrown upon the lesions coincident with fever; that is to say, we should be better able than we are to say what lesions directly depend upon the elevated temperature. The nearest approach to experiments of this kind upon the human subject has been made by Bartels. He raised the temperature of a healthy person to 107.5 deg., by a vapour-bath, for forty minutes. The first symptoms produced were a sense of heat and oppression, with discomfort and restlessness. These were followed by weakness and faintness; pain in the head; muscular movements unsteady and tremulous; skin red, swollen, sweating; frequency of pulse much increased; but frequency of respiration not always much increased. When the experiment is carried as far as it can be with safety, the sensorium is affected, and there is a strong disposition to swoon. In Bartels's case, the temperature reached, as I have said, 107.5 deg., the pulse 172, when the person was removed from the bath on account of swooning. Let us remark, in passing, that the hyperæmia of the skin which serves to get rid of an excess of body-heat under ordinary circumstances, becomes, when the body is in a hot atmosphere, positively pernicious, and favours the absorption of heat. Experiments such as these have practical value. They seem to me to leave no doubt possible that what is commonly called sunstroke is really the result of raising the body-heat beyond a certain point. In order to secure the greatest possible functional activity, hot-blooded animals are constantly living upon the very verge of danger and of death from their hot blood. And we have just seen that the power of the body to regulate its heat involuntarily is very limited; above a certain point, say 108 deg., the body becomes passive to any external influences; what regulating power it had, is lost.

The extremely hot summer of 1868 gave many of us opportunities of seeing examples of sunstroke. On July 22nd, the hottest day of that summer, with the thermometer standing at 90 deg. in the shade of the Royal Exchange, a young man was wheeling a baker's barrow along the sunny side of Fleet Street, when he staggered and fell. He was at once brought to St. Bartholomew's hospital in a cab, within about half an hour from the attack, but he was already moribund, perfectly unconscious; pulse extremely frequent and feeble; temperature in axilla 109.5 deg.; skin covered by an universal livid mottling, precisely like the subcuticular rash of typhus; a loud systolic murmur over the pulmonary artery. He soon died, within an hour from the beginning of the sunstroke. No *post mortem* examination could be made; but I find that, in a much less rapidly fatal case seen by Dr. Bäumlér at the German Hospital, the muscular fibres of the heart, the cells of the liver, and the epithelium of the kidneys, were observed to be highly granular. This is very interesting, because we shall see hereafter that precisely the same lesions attend the pyretic state. But not only exposure to the direct rays of the sun, but also prolonged abode in hot rooms, can produce sunstroke, or rather heat-stroke. In India, soldiers are frequently attacked in their barracks; and the temperature of those rooms is some-

times as high as 114, 118, nay, it is said, 125 deg., and even by night the temperature may not fall below 105 deg. And it is only what we should expect, when we are told that moisture of the atmosphere and muscular exertion, the one diminishing the loss of heat by evaporation, and the other increasing the heat set free by the body, are powerful excitants of sunstroke, in addition to the mere heat of the air. The deleterious effect of the heat seems to be largely explicable even in the present state of animal chemistry. Weikart declares that the blood begins to clot in the vessels at 109 deg.; the muscles of warm-blooded animals set instantly at 118 deg., and set more gradually at lower temperatures; 113 degs. Fahr. of heat abolish the excitability of nerve in frogs. The rational treatment of heat-stroke which suggests itself is strongly supported by experience; we must aim at reducing as quickly as possible the heat which is killing the patient.

[To be continued.]

LECTURES ON DERMATOLOGY.

DELIVERED AT

The Royal College of Surgeons of England.

By ERASMUS WILSON, F.R.S.,

Professor of Dermatology in the College.

LECTURE VI.

In reference to treatment, eczema must be regarded as a "solution of continuity", and as such requires a dressing to defend the lesion, for the purpose of keeping its broken edges in contact, and of excluding the operation of external irritants of every kind. A dressing with the benzoated ointment of oxide of zinc fulfils this indication completely. The ointment should, in the first instance, be smeared upon the eczema; the smearing process should be repeated twice or more frequently in the day, so as to secure a permanent covering; and, wherever practicable, strips of linen rag spread with the same ointment may be placed over the eruption and maintained in position by a roller, so as to keep the ointment and the dressing in permanent contact with the diseased skin. In this relation the ointment fulfils the purpose of a light unirritating plaster; it preserves the natural moisture of the skin, and excludes the stimulant operation of the atmospheric air. It is easily replaced when accidentally removed, and in many cases will accomplish every object of treatment from the beginning to the cure of the case. Let me instance an eczema infantile, in which the body is covered with eruption from head to foot; it is hardly possible to conceive a remedy more admirably suited in such a case to meet the exigencies of treatment than the benzoated ointment of oxide of zinc.

It has long been my custom to combine with the zinc-ointment a small quantity of spirits of wine, in the proportion of one drachm to the ounce: the spirit softens the ointment and facilitates its application; it produces a sensation of coolness which is agreeable to the heated surface, and it has besides a gently stimulant effect on the nerves of the skin. The application, as I have already observed, relieves the heat, the stiffness, and the itching, and the relief continues until the ointment dries up or is accidentally removed. When either of these events takes place, the ointment must be repeated in the same manner as before. Our aim should be to favour a thin deposit or concretion on the surface, which should occupy the place of the broken or excoriated epidermis; such a deposit or concretion is, in fact, an artificial cuticle, a kind of natural plaster, under which the skin is preserved in a state of repose, and the inflamed and irritable tissues have time given them to recover their normal status. You will perceive that eczema brings before us a surgical lesion in which the application of a plaster or dressing of any kind is often perfectly impracticable, and therefore we are obliged to have recourse to a remedy which shall possess the intrinsic property of adhesion to the skin without the aid of other coverings. This will explain our anxiety to have the inflamed surface thoroughly coated with the ointment, and to have the ointment repeated as often as, from any accident, it may by chance be displaced; and, of course, wherever practicable, means may be contrived, such as bandages and compresses, to render the dressing permanent. Above all, it is important to avoid washing the skin at this stage of the disease: washing would remove the ointment and open up the excoriation afresh; it would be undoing that which it had taken much

labour to do; it would be unsurgical, by creating disturbance where rest and position were of the utmost importance. There can be no want of cleanliness where a pure oxide of zinc ointment is properly used; and if secretions be poured out from the skin, they may always be absorbed by means of a soft napkin, and, together with crusts, may be gently wiped away. Mothers will sometimes hear with wonder the command to avoid washing their children in a case of eczema infantile; but they are generally ready to admit that the eruption is always more uneasy after the washing than it was before, and their instinct quickly assures them that their instructions to avoid washing are correct.

Eczema enjoys the peculiarity of presenting, in a general attack of the eruption, a variety of degrees or forms of manifestation on different parts of the body; thus it may be erythematous in one place, ichorous in a second, and squamous in a third. The zinc-ointment is equal to the relief of every one of the forms of the eruption; but it not unfrequently happens that we may find an advantage in using a powder in one situation, the lime-water and zinc-lotion in a second, and the ointment in a third. And in the adoption of these means we are to be influenced rather by the sensations of the patient than by any preconceived theory of the disease. In general terms, it may be said that whatever gives rise to pain or uneasiness is bad, and will require to be changed.

Eczema is essentially chronic as to its course; but it manifests stages in its progress which are as decidedly acute. The treatment which we have just been considering is strictly palliative, and is therefore especially adapted for the early and acute stages and acute manifestations of the disease, but is equally applicable for the relief of heat, itching, and dryness, in every stage of the affection. If I were asked how I should distinguish between an acute and a chronic eczema, I should say that the acute stage was denoted by erythematous congestion and moist excoriation, and the chronic stage by infiltration and desquamation, the infiltration giving rise to thickening and induration. I shall now suppose that the eczema has reached its dry, squamous, thickened, and indurated stage. It has assumed that condition which, in ulcers, for example, is termed indolent, inveterate, and so forth. The zinc-ointment removes the scales, heals chaps and fissures, and relieves in some degree the itching, but does nothing towards the dispersion of the thickening and induration of the tissues—that is, towards the cure of the disease. The time, in fact, has come when we must contrive to awaken the tissues from their indolence and lethargy, and direct, as far as we are able, the newly awakened life towards a normal state of action—that is, towards a restoration of healthy function and tone.

Our purpose, therefore, is no longer palliative; it is stimulant or tonic; the palliative treatment has accomplished all that it can; now we have to consider the nature and mode of application of the stimulant treatment. Our stimulants possess a great range of power, and, if we knew exactly the amount of resistance which we should meet, we might apportion our power with exact accuracy. But as this can never be the case in dealing with so delicate a machine as living organisation, the laws of surgery would prescribe to us that we should begin with the mildest of our stimulants and advance progressively and to the best of our judgment to the higher degrees. The philosophic surgeon will not hesitate to adopt this course as one in every way consistent with his knowledge of vital phenomena; and, therefore, we may proceed to inquire, In what do our stimulants consist?

The first and best of our tissue-tonics or local stimulant remedies is undoubtedly soap. It will be remembered that I have prohibited soap in the earlier and acute stages of the eruption; therefore soap is new to the morbid skin, and capable, consequently, of producing a more powerful effect than would otherwise be the case. The chronic eczema should be thoroughly washed with soap, combining with the solvent action of the soap upon the epithelium such an amount of moderate friction and compression as may reach the vascular and the infiltrated tissues. After the washing, the surface is to be dried with a soft napkin, and, as soon as dried, dressed with the zinc-ointment like an eczema of an earlier period. The next day we examine very carefully our eruption, and, if we find no signs of excessive irritation present, we renew the saponaceous washing, and repeat it again and again until the eczema is healed. It will soon be apparent how frequently the process may be repeated, whether once a day only or twice, or whether the reapplication must be deferred for several days. The immediate consequence of the stimulant treatment will probably be the development of an exudation on the surface, which will relieve the infiltration and turgescence within; and a few repetitions of this exudation will so far tend to empty the tissues of their excess of fluids that they will be enabled to return by degrees to their normal state.

This, in fact, is the explanation of the *modus operandi* of the powerful stimulants which we hear of as being from time to time useful in the cure of chronic eczema; such as strong alkaline soaps, strong solutions of potash, strong mercurial ointments, strong solutions of nitrate

of silver and tar. And, in illustration of the same principle, I may call your attention to a remark which I made in reference to the treatment of No. 27; namely, that, after an obstinate resistance of a variety of remedies, the disease was suddenly cured by one application of the tincture of croton, pencilled over the inflamed surface.

If I wished to reduce the principle of local treatment to an aphorism, I might do so by the use of the two words *palliative* and *stimulant*. Among the palliatives, there is one which is occasionally of much service for the relief of heat, tension, and pruritus; namely, water-dressing, whether the moist application be made in the ordinary way with an impermeable covering, or employed in the shape of a cold starch-poultice. The water-dressing may be used constantly for a period, or during the night only; and its use may be combined with that of the lime-water lotion, zinc ointment, or saponaceous frictions and ablutions. The water-dressing is very useful in accelerating the separation and removal of crusts, in promoting exudation from infiltrated and oedematous tissues, and in preparing the tender skin for the treatment by ointment or the treatment by desiccating lotions. If a water-dressing had been kept applied to the leg in Case XLVII for twenty-four hours, the whole of the dark crust visible in the model might have been washed away. The morbid skin would then have been prepared to receive the dressing of zinc-ointment; and this, with the support and moderate pressure of a properly adjusted roller, would have effected a vast improvement in the disease in a very short space of time.

One symptom which more than any other torments both the surgeon and the patient in eczema is *pruritus*; and very frequently we are called upon to change our plan of treatment in order to combat this annoyance. When the pruritus proceeds from ordinary irritation, it may be subdued by the oxide of zinc ointment; and a moderate friction with this ointment may be had recourse to as often as the itching returns. If allowed to continue, the pruritus will sometimes assume a neurotic and neuralgic character. It will come on after any slight exertion, after the taking of food, upon changes of temperature, and especially at night, sometimes on first assuming the reclining posture, and at other times in the early morning. It is always intermittent, and presents such a variety of manifestation as to make evident that sometimes the peripheral nervous plexuses are the seat of the painful sensation, sometimes the perforating twigs of the cutaneous nerves, and sometimes the larger branches and even the trunks of the nerves. There may be a gradual transition from a feeble itching to a pruritus which vibrates through the whole nervous system, or to a state of neuralgic pain such as has suggested the term *eczema neurosum*.

When the zinc ointment, with the addition of spirits of wine, camphor, tannic acid or carbolic acid, fails to relieve the pruritus, we may sometimes meet with help from hot water, from a cold starch-poultice, from water-dressing; from lotions of soda, hydrocyanic acid, juniper tar, or a solution of nitrate of silver. But all these remedies must be regarded simply in the light of adjuvants to the principle of treatment already discussed; and, when the neuralgia is decided, we must seek for relief in constitutional means.

The stavesacre ointment is often very successful in the relief of the pruritus which sometimes follows scabies; and as this remedy, next to sulphur ointment, is one of our best means of destruction of the acarus, it may possibly happen that the pruritus is protracted by some such overlooked and unlooked-for complication. The pruritus of lichen urticatus is best relieved by Hebra's lotion—a lotion consisting of an ounce each of soft soap, juniper tar, and alcohol, diluted with five ounces of water. And the sometimes ungovernable itching of lichen planus is with the most certainty mitigated with hydrocyanic acid suspended in an emulsion of bitter almonds.

Another modification of the local treatment of eczema is the natural consequence of its seat. Neither powder, nor lime-water lotion, nor zinc ointment, would be suitable for application to the eyelids, or within the meatus aurium; but for both these regions an excellent substitute will be found in an extremely diluted nitrate of mercury ointment, or in the glycyrrine of tannic acid of the *British Pharmacopœia*. Again, the oxide of zinc ointment is unsuitable on the scalp, in consequence of clogging the hair, and thereby giving rise to much inconvenience; but, in the latter situation, a far better remedy presents itself—namely, the nitric oxide of mercury ointment, diluted with benzoated lard in the proportion of one part to three of the diluent. The case of dermatitis exfoliativa (No. 6), suggestive of an extensive burn, was most efficiently relieved by the linimentum calcis and the carron-oil.

In bringing to a conclusion my remarks on the local treatment of the eczematous affections, I should fail in my intention unless I succeeded in leaving on the minds of my audience a forcible impression that the treatment of diseases of the skin is in nowise different from that of surgical disease in general; that the same enemy is to be combated in all; and that the principle of treatment is in the first place *alleviative*, and

in the second *stimulant* or *tonic*. But, just as the Abernethian doctrine of the "constitutional origin of local diseases" is universally recognised by the physician of surgery at the present day, so, in the instance of the diseases before us, the constitution of the patient undoubtedly enacts an important part, and constitutional treatment possesses a corresponding value.

[To be concluded.]

ABSTRACTS OF CROONIAN LECTURES

ON

SOME POINTS CONNECTED WITH THE ELIMINATION OF NITROGEN FROM THE HUMAN BODY.

Delivered at the Royal College of Physicians, London.

By E. A. PARKES, M.D., F.R.S.,

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LECTURE II.—*Friday, March 17th.*

IN the consideration of the way in which nitrogen is eliminated from the body, it is necessary to be acquainted with some simple facts. One of these, of great importance, has only lately been made out; viz., that the amount of nitrogen removed from the body may be very nearly accounted for by the quantity ingested—that is to say, the exit of nitrogen is regulated by its entrance, and to a very slight extent only by the muscular action. This fact was not recognised until it was pointed out by Pettenkofer and Voit. Dr. Parkes, from some experiments on healthy men, has found that, by simply varying the amount of nitrogenous food, he could increase or diminish the amount of nitrogen eliminated. Thus, to one man he gives for ten days food containing 195 grains of nitrogen *per diem*; the amount excreted in the urine was 183 grains. He then increased the amount of nitrogen to 215 grains; the quantity of excreted nitrogen rose to 204 grains; and, on giving 274 grains of nitrogen for another period of ten days, the amount eliminated rose to 242 grains. Other similar experiments were referred to; all of which showed that the amount of nitrogen excreted can be varied at will by varying the quantity ingested.

In some circumstances, there is not this correspondence between the exit and entrance of nitrogen. This occurs, for instance, where much nitrogenous food is given at once. If the excess consist of the albumen of fowls' eggs, it is not assimilated, but passes off in the urine. In dogs, however, and occasionally in man, it may be assimilated.

Again, even where the amount of nitrogen in the food is greatly reduced, there may be a considerable elimination by the urine; even in animals starved, nitrogen has been found in their urine for three weeks. Dr. Parkes, having fed three healthy men on a diet of starch and fatty food, without nitrogen, found that still a large amount of nitrogen was eliminated.

Why should the egress of nitrogen from the body be modified by its ingress? An attempt has been made to explain this by supposing that the nitrogen taken in with the food was in excess of the wants of the body—a mere surplusage, to be got rid of. This doctrine, however, of "luxus-consumption" (as the Germans call it) has now but few adherents. If the amount of nitrogen in food be cut down, its exit will be lessened; and when the quantity of nitrogenous food is again increased, the amount excreted will not at once correspond to the quantity taken, a part being evidently retained in the body to compensate for the previous deficiency. Thus a man, on nitrogenous diet, excreted 110 grains of nitrogen daily for five days. Nitrogenised food was then withheld for two days; and was then restored for four days in the same quantity as before; he now excreted only 85 grains instead of 110, showing that a portion had been retained to make up for the loss. In another experiment performed by Dr. Parkes, the results were the following. For twenty days, a man had food containing 300 grains of nitrogen, and excreted 305 grains. For five days, he had only half the quantity of nitrogen; and for another five days his food contained none. After this, the amount of nitrogenised food was restored to its quantity at the commencement of the experiment; and, instead of the nitrogen excreted corresponding at once with that taken in, it rose gradually, the quantities being, during four days, 189, 242, 253, and 261 grains; thus showing a gradual return to the normal amount of excretion. These

facts seem quite incompatible with the hypothesis of "luxus-consumption"; and tend to prove that, when the body is in equilibrium, the nitrogenous tissues are nourished according to that standard.

The conversion of albumen into urea is not merely a process of oxidation, but is connected with the vital actions of the body. But with which of these is it so connected?

The muscles perform a most active part in the bodily functions; and in composition are most allied to the albuminous compounds. It would at first appear that we must look to their action for an explanation of the elimination of nitrogen; but it is not so. The quantity and kind of food being the same, there is no appreciable variation in the amount of nitrogen excreted under varying circumstances of rest and of exercise. This was first pointed out by Edward Smith and by Voit; and in tetanus, no increase of the amount of nitrogen eliminated has been found. From his own experiments, Dr. Parkes has been led to the conclusion that muscular exercise produces little change in the amount of nitrogen eliminated; but he cannot agree with those who hold that it produces none. The increase in the elimination of nitrogen produced by exercise is, however, very moderate. Moreover, it must be remembered that urea has never been found as a constituent of muscle; on the other hand, kreatin is found in muscular tissue.

Do the changes in the nervous tissue account for the elimination of nitrogen? There is no proof that mental labour produces any difference in the amount of nitrogen excreted; and, at any rate, the effect produced must be so small that we may say that there is no relation between the amount of mental work and the excretion of nitrogen. Such tissues as bone and cartilage, not being concerned in any active operations, cannot, of course, be concerned in the question.

We have now to consider the part performed by the glandular and cellular structures. Albuminous fluid is constantly passing to and from gland-cells; and thus a constant interchange is kept up between their contents and the blood. Here we may look for the conversion of albuminous matters into urea. Voit has drawn a distinction between the albumen fixed in muscles and other organs and that circulating in the blood. The first, or "organ-albumen", changes slowly; the other is unstable, and changes readily into urea in passing through the body.

We must look to the gland-cells for the passage of albumen and the formation of urea. It is known, too, that urea and uric acid are formed in these cells. Nearly thirty years ago, Dr. Parkes noticed in India, in cases of hepatitis and hepatic abscess, that the amount of urea in the urine was lessened when there was much suppuration; while, on the other hand, when the liver was greatly congested, the amount of uric acid was increased. He has lately had an opportunity of making observations on a case of extensive hepatic abscess. Three and a half months before the patient's death, he found that in six days, during which the man must have taken about 1,152 grains of nitrogen in his food, only 792 grains were passed in the urine. Allowing that 150 grains were, during this time, excreted in the fæces, there were still 210 grains retained; either because the pus-cells appropriated the nitrogen, or because the formation of urea was impeded by the pressure on the hepatic cells. The latter explanation Dr. Parkes thought the more probable one. In cases of extensive cancer of the liver, the amount of urea excreted is generally very small. In acute yellow atrophy of the liver, urea sometimes disappears from the urine, its place being taken by leucin and tyrosin. Meissner hence argued that destruction of the liver-tissue interrupted the formation of urea.

There is no doubt that urea can be proved to exist largely in the liver. This has been stated by Meissner and others; and Cyon has proved that urea is formed in this organ—a marked increase being present in the blood of the hepatic vein over that in the blood of the vena portæ. Popp has also lately asserted that urea is a normal constituent of bile.

According to the experiments of Cloetta, Scherer, Meissner, and others, in birds, uric acid is also formed in the liver. This acid and its allies are also found to be increased in congestive hepatic affections.

It is not impossible, also, that urea may be formed in the blood-corpuscles and in the enlarged spleen in cases of leucocythæmia.

The fact of the influence of cells in the absorption of albumen and production of urea must be of importance in regard to the dietetic treatment of disease. The albumen of the food is chiefly concerned in growth, and the non-nitrogenous materials in the evolution of energy. As, then, growth both in plants and in animals is influenced by nitrogen, cannot we regulate this at will by means of the food?

The nutrition of the voluntary muscles and nerves is to a great extent regulated by the will; growth and expenditure are here correlated with exercise. Some parts, again, such as the glandular organs, are removed from the influence of the will, though still under the control of the nerves.

In the next place, there are certain tissues less under the influence of the nerves, but which have an independent power of nourishing themselves in proportion to the flow of blood and the supply of food. The well-known experiments of Hunter on transplantation prove this; and it is further proved by the recent observations made on the transplantation of skin to ulcers, where the transplanted part appropriates pabulum, after the same manner as a plant does by its roots. Are not the liver and other glandular organs fed in the same way? A man was fed for four days on starchy food, and at the same time caused to take much exercise; as far as his voluntary muscles were concerned, energy was well maintained; but the action of the heart was greatly reduced in power. May we not, then, starve an over-growing part by reducing the supply of blood, through acting on the heart?

Dr. Parkes asked further whether it is not possible to influence the growth of carcinomatous tumours by means of diet. At present, no means of causing the disappearance of these growths is known; but can they not be starved? Many must have seen patients fed on nourishing food, but still wasting in every part of the body, except perhaps a cancerous liver or a cancerous cardia of the stomach. In such cases, the nutritious food supplied with the intention of prolonging life may have only served to increase the disease. It is a significant fact, that the most rapidly growing malignant growths occur in later life, when the activity of the normal nutritive processes is diminished, and when, therefore, it may be supposed that the morbid cell-growth will more readily appropriate nutriment to itself.

Are we right, then, in our course of supplying highly nutritive food to persons suffering from such diseases? May we not give them starch and fat, withholding the nitrogen? This diet may be well borne for four or five days; and the state of the heart will indicate how long it can be continued safely. We may not be able to arrest the morbid growth altogether; but we may retard it. Experience alone, however, can show whether we have such a power.

The deprivation of nitrogen appears not to arrest, but to diminish, the formation of uric acid; which probably has an origin independent of urea.

TREATMENT OF CONVULSIONS BY BLOOD-LETTING AND CHLOROFORM.*

By JAMES BOYD, L.R.C.P.Ed., Newcastle-upon-Tyne.

MRS. J., aged 39, a stout plethoric woman, of the bilious temperament, and within three weeks of her expected time of confinement, and in her sixth pregnancy, was suddenly seized with an attack of puerperal epileptic convulsions on July 4th, 1869. The proximate cause of the fits was my having necessarily informed her in the early part of the day that her child, aged 8, was about to die. About half-past five o'clock the same evening, I was sent for in all haste. On my arrival, I found her labouring under the most violent paroxysms. I found the os uteri undilated, rigid, and oedematous. Labour had not commenced. I without delay bled to the amount of two and a half pints, and administered chloroform; after which, the os gradually became more soft and pliable. With two fingers of my right hand I commenced mechanical dilatation; and, as soon as I succeeded in this to the amount which I considered necessary and sufficient, I ruptured the membranes, and endeavoured to apply the long forceps to the head, which then presented at the brim in the first position. Having failed in this attempt, and seeing the dangerous state in which the patient was, as the fits continued unabated, I perforated the head. By this time the labour set in, and the head de-scended into the cavity of the pelvis: by means of the crotchet, I secured the cranium, and quickly delivered. She was kept under the influence of chloroform eight hours afterwards. The bandage and pad which had been applied to the arm after bleeding having accidentally become loose, she, unobserved, bled about a pint afterwards, and awoke to consciousness the next morning about four o'clock, calling the attention of the husband to her bleeding arm, which, on being sent for, I secured.

There are two or three things which might be worthy of our notice in reference to this case. 1. The large quantity of blood that was withdrawn from the body without producing any dangerous and injurious effects, notwithstanding that blood-letting or bleeding in the present day has now become almost obsolete. 2. The long continuance of the convulsions unabated in their paroxysms. 3. The length of time during which she was under the influence of chloroform.

* Read before the Midwifery Section at the Annual Meeting of the British Medical Association, in Newcastle-upon-Tyne, August 1870.

A CASE OF GUNSHOT-WOUND OF HEAD: EXTENSIVE LACERATION OF SCALP: FRACTURE OF SKULL: EXFOLIATION OF BONE: RECOVERY.

By J. H. TYLECOTE, M.D., Sandon, Staffordshire.

Miss R., aged 17, a girl of rather delicate constitution, while visiting in this neighbourhood, received a severe gun-shot wound of the head under the following circumstances.

At noon, on June 26th, 1869, she was sitting near an open window reading, when a little boy eight years old, having, in the absence of the master of the house, obtained possession of a gun, which was kept loaded with peas for the purpose of frightening the birds, pointed it in play through the window, saying, "I'll shoot you". He immediately fired, and the charge took effect in the left side of the poor girl's head, ploughing up the scalp to a fearful extent. Some portions of it were completely detached, and were afterwards found, with the hair attached, adhering to the opposite wall of the room near to the ceiling. In the same situation were observed many indentations made by the peas, whilst on the floor were several of the pieces of paper with which the gun had been charged, blackened and smelling strongly of recently exploded gunpowder. The wound bled very profusely. She was immediately carried to bed, and her head bound up by the servants; the master and mistress being from home at the time of the accident.

I saw her about an hour after the receipt of the injury. She was then faint from shock and loss of blood; but appeared quite conscious, although unable to articulate. On examination, I found that the scalp on the left side of the head was completely detached, torn into shreds and ragged flaps, and turned back so as to expose nearly the whole surface of the parietal bone. The finger could also be passed nearly its whole length underneath the scalp, almost all round the actual wound, particularly at its upper and posterior borders, showing how extensively it was separated from the cranium. After turning out a large clot which had formed in the lower part of the wound, profuse arterial hæmorrhage occurred. This, I found, proceeded from the interior of the skull through a fracture about three-fourths of an inch long, situated near the anterior inferior angle of the parietal bone. The lower edge of the fractured bone was depressed to the extent of one-third of an inch below the natural level. A director could easily be passed through the fracture for an inch along the under surface of the bone in a direction backwards and upwards. Exposure of the wound to the air and bathing it with cold water failing to arrest the hæmorrhage, I plugged the opening in the skull with a strip of lint; introducing it, by means of a director, in a direction backwards and upwards in the course of the grooves from the middle meningeal artery, which appeared to me to be the source of the bleeding. This proceeding effectually checked the hæmorrhage externally.

I now discovered that about two square inches of the centre of the parietal bone were completely denuded of pericranium. This circumstance, together with the great loss of substance in the scalp, which rendered it impossible to cover the exposed bone with the flaps, led me to anticipate some exfoliation. I had, therefore, to content myself with approximating the flaps as best I could. The wound was dressed with wet lint, and the patient placed on her right side, with her head somewhat raised. She vomited several times during the dressing, and the faintness and inability to articulate continued.—8 P.M. She had had some quiet sleep. The surface of the body was warm; pulse 80, small, but steady; the vomiting continued; she had passed urine. She put out her tongue when asked, but it was protruded to the right side. She was still unable to speak intelligibly, though perfectly sensible. The pupils acted naturally, but there was double convergent strabismus. This, I ascertained on inquiry, had existed from childhood. There was evident deafness, particularly on the left side: the last symptom might probably be attributed to the loud report of the gun discharged at so short a distance from the ear. There had been no further hæmorrhage from the wound.

June 27th, 9 A.M. She had a little sleep during the night. Articulation was much more distinct; but she spoke like one intoxicated. She said that she never entirely lost consciousness from the moment of the accident, and remembered everything which had occurred since.—12 noon. I had a consultation with my brother, Dr. E. T. Tylecote. The symptoms had undergone very little change, except that the skin was hotter, and the pulse 100, small, and intermittent. The bowels had been twice moved, and the bladder relieved. On removing the dressing, the wound looked very well; the flaps being in good position, and lying closely in contact with the bone, about two square inches of which were still exposed. Two layers of lint soaked in carbolic oil,

one part to thirty, were applied and directed to be kept saturated with the oil; a saline effervescing draught was ordered to be taken every three hours, and the diet to consist of milk and beef-tea; the room to be darkened and kept very quiet.

June 28th, 10 A.M. She slept quietly part of the night; was perfectly sensible, and had had no delirium. Skin cool; pulse 75. The hearing was improved. She complained of frontal headache and intolerance of light. She vomited twice during the night; her bowels acted once slightly this morning. The outer layer of lint was removed, and a fresh piece applied without uncovering the wound. There was no tumefaction of the scalp around the wound.

June 29th. Articulation was more distinct; pulse 80. She still complained of headache, and preferred lying with the eyes closed. The bowels had not acted since the previous day; an aperient draught was therefore ordered. The wound was dressed as before.

July 1st. There had been no action of the bowels, although cathartic draughts had been given; and the stomach had rejected the medicine. An enema of oil and turpentine was ordered to be administered immediately, and repeated if necessary. The second enema acted twice copiously.

July 2nd. The headache was relieved; the pupils acted freely, and there was less intolerance of light. The tongue still inclined to the right side when protruded. Articulation had again become very indistinct. She complained of soreness round the wound. The dressing in contact with the wound was removed for the first time. Notwithstanding that the wound had somewhat diminished in size, the raw surface still measured three inches across both transversely and longitudinally. The surface and edges of the wound were rather ash-coloured; and one narrow tongue of scalp seemed inclined to slough. There was no undermining of the scalp; on the contrary, that part which was originally detached had become closely adherent. The denuded portion of bone had a dry, white, glazed appearance. There was a discharge of grumous matter, which was not at all offensive. Carbolic oil-dressing was again applied, and ordered to be changed night and morning. An enema was ordered to be given whenever the bowels were confined.

July 3rd. Articulation was again improved, but there was an accession of feverishness; pulse 100; temperature 102 deg. She had a short, loose cough; but there was no indication of lung-mischief beyond slight pulmonary catarrh, caused probably by the clothes being saturated with water at the time of the accident in the attempt to stop the bleeding. The wound was discharging freely.

July 4th. She had rested comfortably, and spoke more distinctly. She was able to keep her eyes open in the darkened room. Pulse 104; temperature 101 deg. The wound was rather cleaner, and granulating. The discharge was abundant.

July 5th. She was much the same; pulse 104; temperature 102 deg.; wound cleaning. In the evening the pulse had risen to 120, possibly through excitement consequent on the visit of a friend. The bowels not having acted during the day, an enema was ordered.

July 6th. She was much calmer; pulse 112; temperature 99 deg. As the enema of the previous evening had not acted, it was ordered to be repeated. A small slough had separated from the edge of the middle flap; about half-an-inch more remained to be detached. The diet was now milk, broth, eggs, and light puddings.

July 8th. Pulse again 120, and weak; temperature 97.3. The wound was looking healthy, and the slough separating. The lint, which had been inserted within the cranium to arrest the hæmorrhage, was appearing at the lower edge of the wound. As it did not yield when pulled strongly with the forceps, I did not persist in the attempt to extract it for fear of a recurrence of the hæmorrhage.

On the 9th and 10th, the pulse varied from 104 to 120. She protruded the tongue naturally and spoke distinctly. The wound was free from slough, contracting and granulating nicely. I cut away the lint close up to the fissure in the skull, where more could be seen, and from which a sanious discharge exuded, mixed with bubbles of air, and pulsating synchronously with the brain.

July 24th. The wound was contracting and granulating round the edges. The exposed bone might now be covered with a crown-piece, and was of a pinkish colour at its upper part, as if granulations were springing up over it, the remainder being still white and dry. I let out a small collection of pus from under the scalp near the posterior border of the wound. She was ordered to take a dose of compound rhubarb-pills occasionally.

August 7th. The bowels now acted spontaneously. The wound had filled up considerably, the bare bone not exceeding the size of half-a-crown. I brought away more of the lint, and again cut it off close to the fracture.

August 26th. Half-an-inch more of the lint came away. The overhanging upper edge of the fracture was now distinctly visible.

August 30th. I succeeded in bringing away the whole of the lint from the fracture, in which it had been imbedded for two months. I gave permission for the patient to be taken out of doors.

September 10th. The granulations were exuberant, requiring to be touched with nitrate of silver. The bare bone in the centre of the wound continued dry, and was becoming brown. There was an abundant discharge of pus from the lower part of the wound, the seat of the fracture.

September 20th. The exposed bone was evidently loosening, being pushed up by the growth of the granulations beneath.

September 23rd. With dressing-forceps, I removed three pieces of exfoliated bone (Figs. 1 and 2). One of them, of irregular shape (Fig. 1), was about two inches in horizontal, and about an inch and three-quarters in vertical diameter. The temporal ridge was very distinctly seen crossing the middle of this portion.

October 16th. The size of the wound was much diminished; but it was still prevented from healing by more necrosed bone, which was removed, and proved to be an inch and a quarter long and a quarter of an inch thick at its thickest part. It involved the inner table at each extremity, the smaller end being distinctly grooved for the meningeal artery (Fig. 3).



On November 6th and 11th, I removed two more small pieces of bone. On December 4th, she returned home in perfect health, with the wound healed to the size of a sixpence. A large bald patch, considerably depressed below the level of the surrounding parts, indicated the great loss of substance which had resulted from the injury.

April 23rd, 1870. I heard that the wound finally healed at the end of December last, and had continued sound since.

On reviewing the foregoing case, there appear to me to be several points in its history deserving of notice.

1. There was a remarkable immunity from cerebral disturbance; the only symptoms referrible to this cause being slight deafness, intolerance of light, deviation of the tongue to the right, and indistinct articulation. This difficulty of articulation was, I think, due to a want of control over the organ of speech from paralysis, and not to any lesion of the third left frontal convolution, or plugging of the middle cerebral artery; as there was not so much a difficulty in finding words to express her ideas, as an inability to articulate them distinctly. I regret to say that her ability to express herself in writing was not tested at the time.

2. There was a complete absence of erysipelatous inflammation, and consequent burrowing of pus, detachment of the scalp, and extensive sloughing.

3. No bad consequences resulted from the depressed bone, and the introduction within the cranium of a strip of lint nearly three inches long for the purpose of arresting the profuse arterial hæmorrhage.

4. The strabismus, which might have had more importance attached to it than it deserved, had its true significance assigned to it by the discovery that it had existed from childhood.

5. The healing of the wound, retarded by the extensive exfoliation of bone, which involved the whole thickness of the outer table, with portions of the diploë, and at the seat of the fracture a small extent of the inner table, as shown in the piece of bone extracted on October 16.

The treatment of the case requires very little comment. The symptoms were never such as to warrant any interference with the depressed bone. Little was done beyond keeping the patient perfectly quiet in a darkened room, relieving the constipated bowels by enema, which answered better than purgatives by the mouth, on account of sickness, and giving a mild, nutritious, unstimulating diet. The only dressing to the wound after the first day was carbolic oil—one part to thirty—an application which I have always found very efficacious in injuries to the scalp. One fortunate circumstance in the treatment

of the case was, that the hæmorrhage, when its egress through the fracture was arrested, did not go on internally, and thus produce fatal compression.

RECOLLECTIONS OF THE MEDICAL SCHOOL OF VIENNA.

By J. F. PAYNE, M.B. Oxon; late Radcliffe Travelling Fellow.

I.

THE custom for English medical students or graduates to spend some months on the continent, is one so excellent and useful that we could wish it were more common. In this respect, progress has not kept pace with the increased facilities of communication. The Americans, of course, far surpass us in their zeal for travel; and even the Germans seldom think their education complete till they have visited one or two universities besides that in which they have graduated. The English student, on the other hand, rarely has sufficient enterprise even to migrate from one part of London to another; and if his home experience be really confined to one school out of eleven in a single city, he must need, above all others, the wider field of observation given by foreign travel. Moreover, it has been too much considered *de rigueur* to spend a session in Paris; and, as this usually exhausts the time assigned to travel, the student gets no further. Paris has indeed been closed to us by lamentable circumstances; and we should not choose such a moment as this to depreciate in the least degree a city which has so many claims on the sympathy and gratitude of the students of all countries; but the seeker of medical knowledge will not lose if he have to go to Germany instead. The language is, of course, an obstacle. We all know French—as we think; we certainly know our ignorance of German; but the student or his friends must only make up their minds to six months instead of three, or twelve months instead of six, until at least German is more generally taught in our schools. Germany, too, presents another difficulty in the competing claims of so many universities. Paris is always France, but what is the capital of Germany? This is a question which we cannot pretend to answer; but we think we may do a service to the travelling student by pointing out what solid advantages can be got at one at least of the German universities.

For strictly professional knowledge, no serious student will ever regret having gone to the University of Vienna. At a distance, people are apt to depreciate this famous school. At Berlin they speak of the Vienna School of Medicine always in the past tense. At Leipzig, at Munich, at other universities where the sciences accessory to medicine are studied with admirable zeal and magnificent appliances, they will tell you that Vienna may be very good for “practice”, but in science it is nowhere. Nevertheless, we think that any candid student, native or foreign, who pays more than a flying visit, and takes the trouble to know intimately the varied resources of instruction offered by Vienna, must come to place the school above Berlin with her distinguished names, or Paris with her great traditions. Of Paris, we will only say enough to justify this strong assertion. As compared with Vienna, it has the great drawback of not being in Germany. Germany is, at the present moment, that part of the world in which anatomy, physiology, and their applications to medicine, are studied by the largest number of persons with the greatest energy, and therefore with the greatest success. Of the results of German labours in this field, the older teachers of the Paris school are most strongly and unfortunately ignorant. It is true that there is a younger school whose writings have given occasion for the epigram, that a French book may be known by the number of German quotations; but, while the French character and traditions remain the same, it will always be the exception to find a distinguished Paris teacher who is prepared to learn from the foreigners instead of instructing them. This, then, is the first drawback to the Paris school. The second drawback may seem a trifling one, and yet is not unimportant. In Paris, the numerous and splendid hospitals, so admirably conducted and so generously opened to the students of all nations, are, for good and sufficient reasons, scattered all over the city, and, as the lectures and clinics of most of the teachers take place at the same hours, some must be sacrificed. In Vienna, on the other hand, all the important medical institutions are within a very small area, and the teachers, for the most part, accommodate their hours so as not to

clash with one another. There is no hour of the day which cannot be profitably occupied either with clinical medicine and surgery, or with some one of the numerous specialities which make Vienna most of all attractive to the foreign student. As to Berlin, the case is different. There can, of course, be no suspicion there of want of acquaintance with the results of modern research. An university which, taken altogether, in letters, learning, and science, is probably the most important educational body in the world, is not likely to be behindhand. There are, in fact, just now, more distinguished names in the Prussian than the Austrian capital; and the local concentration is almost as great in one as in the other, but the arrangement of time is not so good, and the resources of the hospital are not thrown open to students with the same freedom. The clinical lectures of Professor Frerichs, the eminent teacher of medicine at Berlin, are a curious sight. One patient at a time is brought in his bed into a large theatre, where the great mass of the students are, of course, at a considerable distance. One student at a time is called out in rotation, and has to examine the case, and undergo a severe cross-questioning upon it. The rest do not so much as touch the patient with the tips of their fingers; nor are they freely admitted to the wards unless they hold some office in the hospital. In the other great medical clinique, that of Professor Traube, the case is somewhat better, students being admitted to the wards during the visit. Altogether, however, the opportunities for actual observation of patients are very inadequate, and it is strange that this fact does not strike the zealous Berlin professors more forcibly. The writer knew a Berlin student, the son of a professor, who migrated to the inconsiderable town of Halle, for the sake of the clinical instruction there. If Trousseau could say of the Paris system, "*Je sais bien, messieurs, combien l'enseignement clinique de la faculté manque d'actualité*", how much more is this true of Berlin. In Vienna, though the wards are not so open as in the London hospitals, any student may spend three or four hours a-day in actual observation of patients; and the system of clinical offices is so arranged, that every matriculated student during his clinical years has constantly one or more patients under his immediate care. Another strong point at Vienna is the specialities. In certain branches, other schools may be pre-eminent. No oculist, in Germany or elsewhere, stood higher than the illustrious and lamented Von Graefe, of Berlin; no hospital in the world can offer such opportunities for the study of skin-diseases as the St. Louis at Paris; but, taken as a whole, the staff of teachers and the opportunities for observation in specialities at Vienna are quite unrivalled. A diligent learner may begin early in the morning and leave off late in the evening, if his powers of observation hold out, studying diseases of the eye, the ear, the skin, the throat, syphilitic diseases, practical obstetrics, children's diseases, and so on, all in the same building, or close by, and under competent and most zealous teachers. What is most important, however, is the way in which this instruction is given. The "lecture" is not a mere piece of bookwork, nor yet merely watching a rapid prescriber "see out-patients" against time. The patients are brought into the middle of the room, and described and commented upon, as specimens of natural history are exhibited by a lecturer. The proper treatment of the maladies is, of course, not neglected, but it is kept well hand in hand with the teaching, and not allowed to squeeze it out altogether. It is plain that demonstrations of this kind give active occupation to the mind, and do not leave it in the passive, helpless condition produced by the many hours of pure listening which the unfortunate London student has to go through. The Vienna student passes from one so-called lecture to another, but in each his mind is brought into actual contact with the proper subject-matter of his science, and, if it still remain dull and unawakened, the fault is his own.

We must, however, pass on to speak of the instruction in general medicine and surgery. In these subjects, there are no systematic courses precisely corresponding to those which go under the same name in the London schools. The whole of the instruction is given in the form of clinical lectures, an arrangement which is very general, though not universal, in the German schools. It is not quite easy to see how the Germans have come to discard entirely the method of instruction by systematic lectures, indispensable as it is thought in other sciences, and maintained in all other countries as a part of medical education, especially as it is said that in former years the opposite extreme prevailed, and long courses of general pathology and general therapeutics occupied a large portion of the student's time. The fact we believe to be, that this change is only an indication of the great revolution which the German intellectual character has undergone in this century. We are still apt to think of the Germans as idealists, whereas there is hardly any nation so positive. We still enjoy the well-known story of how artists of three nations were commissioned to paint a picture of the camel; how the Frenchman went to the Jardin des Plantes, the Englishman to Egypt, while the German shut himself up in his study and

evolved the idea of a camel out of his inner consciousness—a story which may have been at one time a fair caricature, but must now strike anyone who knows Germany as being not only incorrect, but strangely and studiously incorrect. German works are distinguished from others, not by their subjective character, but by the predominance of the solid basis of observation and experiment. It is perhaps this pronounced positive tendency which begets a certain impatience of teaching that cannot be illustrated by objects or experiments.*

Now, in medicine, we cannot as yet produce objects and experiments to order, as can be done in scientific lectures; and therefore, waiting the progress of experimental pathology, medicine to be taught demonstratively must be taught occasionally—that is to say, clinically. Of course, if clinical lectures take the place of all systematic teaching, they must be somewhat different from ours. They are more elaborate, and also more expository, than when the object is merely to explain a particular case. The case is, in fact, made a peg, on which to hang a full account of the disease. This system has its weak point; sometimes the lecture is hung on to the wrong peg. The writer once heard a venerable Professor of the Vienna School pointing out the symptoms of a patient in his wards. "This, gentlemen", he said, "might at first sight be taken for a case of gangrene of the lung" (a favourite hobby of the Professor's). "It is not, for several reasons, a case of gangrene of the lung, but I shall make that disease the subject of my remarks to-day." Another time he would begin:—"A fortnight ago, gentlemen, there was a case of typhus in this bed. The patient has left the hospital some time since, but I shall take the opportunity of lecturing on typhus." These anecdotes are strictly true of a justly esteemed professor of the Vienna School, who has only just ceased to teach, and whose fame is indeed European, though he is perhaps more honoured in his own city than abroad—the distinguished Skoda. To the medical public, Professor Skoda is best known as the author of a work on auscultation, of which the first edition appeared thirty years ago; but his own pupils and admirers attach a still higher value to his numerous lectures, some of which have been published in weekly journals, while others, taken down in shorthand and lithographed, find a considerable private circulation. It is not easy to estimate the actual importance to science of works, some of which have never undergone the ordeal of wide publicity, while others, when subjected to this ordeal, have apparently failed to produce the effect which might have been expected; but it could be shown, were this the place to do so, that certain principles of treatment which have been looked upon in England as daring innovations, and which Trousseau regretfully spoke of as almost too hazardous to be tried, have been for many years taught and acted upon by Skoda; we mean that system which has been lately called studying the natural history of the disease. With regard to pneumonia, for instance, he has long taught that in this, no less than in what are called the specific fevers, there is a natural involution, which, if changed at all, is not changed advantageously, by any therapeutical interference. Many years ago, when both English and French physicians were attempting, by bleeding *coup sur coup*, to arrest the progress of pulmonary inflammation (though all did not carry it to the excess of Bouilland), Skoda used to watch for the crisis of the disease with the same equanimity with which we now watch the course of eruptive fevers. It is natural, therefore, that his treatment has incurred the reproach of what the Germans call *nihilismus*, or doing nothing. In the details of that branch of medicine specially connected with his name, Skoda has attained marvellous technical perfection, and he has a great reputation for diagnosis. Of late years, his lectures might perhaps be obnoxious to the traditional criticism, that they would have been better if he had taken more pains. He appeared to rest almost entirely upon his immense personal experience and the laborious studies of his earlier years. He had many favourite topics, and his treatment of these was said to change but little from year to year; so that the well-read students, ever desirous of novelty, complained that he was by no means *au courant* of the rapid progress of medical science. Still, when heard for the first time, some of these lectures were very remarkable for their wealth of experience and the marked originality of treatment of well worn themes. Professor Skoda was appointed in 1847 to the post which he has only just resigned. He is by birth, like many celebrities of the Vienna School, a Bohemian. Speculators in ethnology might amuse themselves by tracing in his works the evidences of that industry and tenacity on which the Bohemians pride themselves, and the absence of the philosophic breadth of the German minds.

* We may remark in passing that we believe the positive tendency of the English mind to be at least as marked as that of the German; and that it would produce among ourselves the same impatience of theoretical lectures, but for the despotism of written examinations. It is the immense importance attached to knowledge which can be reproduced on paper that creates a demand for second-hand systematic knowledge, which teachers are obliged to meet.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE V.—Monday, February 27th.

THE general characters of the milk-teeth in the Gorilla are nearly the same as in Man. The canine is in all the Anthropoid Apes very late in development, not appearing until after the second permanent molar, and sometimes not till after the third. This difference from the development in Man appears to be connected with the great size of the canine in the Apes, which requires a longer period for its growth; and with its function, which is that of a weapon of offence and defence, and which is not exercised before the animal arrives at maturity. In the female Anthropoid Apes, Rolleston has pointed out that the canine appears in order of time between the second and third molars. In the male Chimpanzee and Orang, it is delayed till after the third molar.

The habits and food of the Chimpanzee (*Troglodytes Niger*) are very similar to those of the Gorilla. The teeth have the same general characters as in that animal, but are more like those of Man. The canines are rather less developed than in the Gorilla; but there is the same sexual difference. The last præmolar sometimes has connate roots.

In the Orang (*Simia*), a purely vegetable feeder, the general form of the jaw is the same as in the Gorilla. The incisors are smaller, and the canines are more developed. The teeth of the molar series are tolerably even in size; but, instead of presenting distinct tubercles, the surface is comparatively smooth, having a dendritic furrowed appearance; and below this, in the dentine, there are indications of cusps. The first molar presents an indication of the oblique ridge of enamel met with in Man.

The incisor teeth in the Gibbon (*Hylobates*) are rather less prominent than in the Orang. The canines are very long and narrow. The molars have the same general characters as in the other members of the group, but are perhaps more like those in Man. The true molars have the oblique ridge of enamel.

There are not many fossil remains of Anthropoid Apes; but, in a fragment of a lower jaw found in the South of France, belonging to an animal named the *Dryopithecus*, the characteristic molars and præmolars are present, and the canines are large.

All the other Old World Monkeys—the *Cercopithecidae*—have the same number of teeth as the *Simiidae*; the dental formula being $i \frac{2}{2}, c \frac{1}{1}, p \frac{2}{2}, m \frac{3}{3}$. They present, however, many modifications. The *Semnopithecus* and *Colobus* have the stomach arranged in sacculi, very like the human colon. No explanation of this peculiar arrangement has as yet been given.

The *Semnopithecus Entellus* of India has four incisors, having the same proportions as in Man. The canines are much developed, and have a longitudinal groove in the front. The first upper præmolars are rather large, and have a projecting ridge anteriorly; the two cusps are not quite so distinct as in the other genera. The true molars are nearly equal in size, and have four cusps; there is no indication of the oblique ridge, but a transverse ridge connects the anterior and posterior cusps, leaving a valley between them—an arrangement which is very common in herbivora. The first lower præmolar is larger than the rest; the inner cusp is nearly lost, being almost reduced to a cingulum. The second has two nearly equal cusps. The true molars increase in size from the first to the last.

The general characters of the teeth in the *Cercopithecus* are the same as above described; but the additional cusp is wanted in the last lower molar. One species has only three cusps.

The *Macacus* has a more dog-like face than the Monkeys above mentioned, but the teeth are alike. The last molar presents the fifth cusp.

In the Baboons, the incisors are very prominent, and are at a distance from the canines. The latter have a very deep groove on the anterior surface. The præmolars and molars have the usual arrangement; and accessory cusps are often present, giving somewhat of the appearance of the Pig's tooth. The oblique line on the molars is entirely absent. The first lower præmolar has the anterior part of the crown and the anterior root much developed. The next præmolar is comparatively small. The molars increase from the first to the last.

The New World Monkeys are divided into two groups—*Cebidæ* and *Hapalidæ*—each of which has a distinct dental formula.

The formula in the *Cebidæ* is $i \frac{2}{2}, c \frac{1}{1}, p \frac{3}{3}, m \frac{3}{3} = 36$. The typical

animal of the group, the Cebus or Capuchin Monkey, has incisors of the same general character as in the higher Monkeys and in Man. The canines are well developed and conical, and the upper one has a cingulum. The three præmolars are much alike, and are tricuspid; but each has only one root, or perhaps two connate roots. The molars have four cusps, and diminish from the first to the last. Some animals of the group have an indication of the oblique ridge. In the Spider Monkey, the upper molars resemble those of Man and the Anthropoid Apes: the lower molars are somewhat different.

In the *Cebidæ*, then, the præmolars, instead of having three roots in the upper jaw and two in the lower, have apparently single roots—indicating a return towards the human type. The first lower præmolar is never developed as it is in the Baboon. There is a further tendency to the higher type in the presence of the oblique ridge on the molars, and in the diminution of size of the last true molar.

CLINICAL MEMORANDA.

CASES UNDER TREATMENT AT THE DERBYSHIRE INFIRMARY.

SUGGESTIONS or questions requiring further clinical investigation in respect to the following cases may be forwarded to Dr. Ogle, Derby.

1. Embolism in a child, producing paralysis of motion and of sensation, with hyperæsthesia, in regard to temperature.
2. Diabetes under codeia and dieting. The urine has fallen from sixteen pints to three and even two in the twenty-four hours, but the specific gravity has advanced from 1044 to 1050. It drops, however, sometimes without assignable cause for a single day to 1038. The temperature under the axilla is normal. The patient is now taking lactic acid, according to the suggestion of Professor Cantani of Naples. (See BRITISH MEDICAL JOURNAL, Feb. 25th, 1871, p. 208.)
3. Jaundice caused (?) by exposure to cold. The patient was engaged in lead-works, where lead-colic is common.
4. Chorea in a child after rheumatic fever.
5. Renal Calculus.

TRACHEOTOMY IN YOUNG CHILDREN.

IN the JOURNAL for March 18th I observe a note from Mr. Vincent Jackson, Senior Surgeon of the South Staffordshire General Hospital, commenting upon the operation of tracheotomy, and laying down a surgical law whereat I must confess to be astonished, and which, I think I may confidently state, is not acted upon in London. I admit having held some such views as Mr. Jackson's at one time; but subsequent experience has certainly altered them. In the communication to which I allude, Mr. Jackson also mentions the names of Drs. Underhill and Russell as confirming his opinion, as well as the other hospital surgeons present. The law which Mr. Jackson lays down is, that no operation for tracheotomy should be sanctioned in a child under four years of age. I may claim, I believe, a little experience in children's diseases; and I have had a few operations of tracheotomy in the course of my life—perhaps, without being egotistical, I may say I have had as many as almost any surgeon; but I have never scrupled to operate at any age, nor on any child, where death was threatening from apnoea. In common with every other surgeon, I have cause to say with regret, that a large proportion of my cases have died, and more in the very young under four years of age than in those above that period of life. But that is scarcely the point. Mr. Jackson lays down a surgical rule which, he ventures to think, ought not to be departed from. I will only trouble the readers of the JOURNAL and Mr. Jackson with one case antagonistic to his opinion; but it is a very good one for illustration. It is certainly an instance of the youngest child upon whom I have ever performed the operation of tracheotomy, and is almost the youngest on record.

I was called at eleven o'clock on the night of December 10th, 1867, to see a child at Norwood, aged nearly eleven months, suffering from croup. My colleague Dr. Wilks had left the patient in a dying condition, stating his opinion that nothing but surgical interference would be of any avail, and wishing me to be sent for. When I reached the bedside of the little fellow, he had almost ceased to breathe, and the case seemed hopeless. With the assistance of Dr. Roberts and his son, I immediately opened the trachea; and I may here state, as an indication of the patient's condition, that the operation was almost bloodless. The introduction of the trocar and cannula through the wound made in the trachea quickly aroused the inspiratory efforts, and the child rapidly rallied. Without detailing the progress of the case, I may say that, by dint of perseverance, patience, and with the care necessary in the after-treatment of all cases of tracheotomy, particularly in the very

disclosed by the presence of some small spots of the characteristic buff tint. It is also recognisable from the fact that, whether the disease be cystic or sebaceous, the morbid conditions are arranged above and below the inner canthus, in what might, for convenience, be styled the *xanthelasmic positions*. Like xanthelasma in its more typical forms, they are also after a time accurately symmetrical.

Dr. HILTON FAGGE said that in a case of his, referred to by Mr. Hutchinson, there was no evidence of disease of the liver; but the patient was a bilious-looking person. In four successive generations of the family, the same patches on the eyelids existed—all in dark members of the family. He did not think it possible to draw an absolute distinction between vitiligoidea plana and tuberosa. Dr. Pavy had, in 1866, brought forward a case of vitiligoidea tuberosa in which the plain variety was also present. The patient afterwards came under Dr. Fagge's care till she died. In this case, also, the woman said that the disease began in the hands before the eyelids. The woman died of hæmorrhage from the stomach; she had been improving very much, and the tubercles had diminished, and, he believed, also the plain patches. The liver was in a state of cirrhosis. The disease also affected the mucous membrane of the mouth; it was found in the trachea and larynx in his case.—Mr. SPENCER WATSON had had a case under his care, in a woman aged about 40, of dusky complexion, and subject to bilious attacks. She had pain and tenderness over the right side. On the left eyelids were two buff-coloured patches; scarcely any on the right side. She described herself as seeing zigzags and coloured bows; she was presbyopic, and a convex glass of eighteen inches focal length enabled her to read with comfort. Where the sight is lost in connection with xanthelasma, there may have been an attack of glaucoma.—Mr. R. B. CARTER said that the appearance of zigzags and wavy rainbows had been suffered by many scientific writers, among whom were the Astronomer-Royal, Dr. Wollaston, and, he believed, Helmholtz. It was a question whether it was connected with hepatic derangement, or rather with disturbance in the brain.—Dr. SYMES THOMPSON had seen one of Mr. Hutchinson's cases—that of a clergyman. The symptoms of jaundice were not dependent on obstruction, but clearly on disturbance of the nervous function in the liver. The urine was almost black; and yet some bile-acids were present in the fæces. Recovery had been most complete in the case to which he had alluded.—Mr. HUTCHINSON said that, in only two of the other cases was there defect of sight; there was no glaucomatous complication. He thought Dr. Fagge's case was as yet isolated as regarded recovery from the disease. He did not assert that nearly all the cases had black jaundice; but he believed that, considering the infrequency of black jaundice, xanthelasma occurred out of proportion in persons affected therewith. Perhaps there was less diversity between vitiligoidea plana and tuberosa than he had suggested; but for the present it would be well to hold these apart. He would like to know the opinion of physicians as to recovery in cases of great enlargement of the liver. A few cases of the kind had been described to him—one by Dr. Andrew Clark.

ON CENTRAL AMERICA AS A RESIDENCE FOR CONSUMPTIVE PATIENTS.
BY JAMES WYNNE, M.D., GUATEMALA.

[Communicated by SPENCER WELLS, Esq.]

The object of this paper was to draw attention to the elevated tablelands of the Pacific slope of tropical America, and especially of Guatemala, a city situated 5000 feet above the sea, in lat. 14 deg. 37 min. 32 sec. N., having a mean temperature of 66 deg. F. The climate was that of perpetual spring; the air was tonic and invigorating, yet not too stimulating. Consumption was very rarely met with; and phthisical patients coming from a distance, if able to lead an open-air life, made remarkable progress. Twelve cases were recorded. Of these four died, five recovered, and three remained under observation. Of the fatal cases, all but one were seen for the first time when the disease had reached a hopeless stage. It was suggested that the value of the Central American plateaux in phthisis should be tested by sending out twenty patients in an early stage of the disease for a few years, or, better, for permanent residence.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, MARCH 18TH, 1871.

R. DRUITT, M.D., President, in the Chair.

Mr. COOPER of Westminster gave an explanation of his patent system of Sanitary Road Watering. The mixture employed consisted of 40 lbs. of the chlorides of calcium and sodium to 250 gallons of water. By it ammonias were absorbed, noxious gases prevented from rising, evaporation of the water was retarded, and moisture was abstracted from the atmosphere.

Mr. LORD called attention to an apprehension that had seized upon some timid minds that letters from small-pox patients were likely to spread contagion by post.—The CHAIRMAN and others considered such a fear as groundless.

Mr. LIDDLE called attention to the new Building Act, which, he considered, contained several important improvements, but left some things ambiguously worded. Among the provisions were, that the rooms should be ventilated from the outside, and that there should be an open space one hundred square feet in the rear of each house. Mr. Liddle contended, however, that the space ought to be "exclusively belonging to each house". After some further criticism of portions of the Act, Mr. Liddle, in conclusion, expressed an opinion that all the Building Acts ought to be consolidated into one.—After a discussion, in which Mr. W. H. Michael, Dr. Tripe, Dr. Gibbon, Dr. Ross, and the President, took part, Mr. Liddle moved and Mr. Lord seconded, "That a committee of the whole Association be appointed to consider the new Building Bill." The motion was carried.

The PRESIDENT read a paper on the Report of the Royal Sanitary Commission as affecting Medical Officers of Health. It was satisfactory to find in the Report that none of the defects shown to exist were traceable to failure on the part of medical officers of health. The present law was condemned as incomplete, confined, and contradictory. The local authorities were found to be too numerous and too apathetic, and the existing central authorities undermanned and underarmed. To remedy these evils, it was proposed that all conflicting jurisdictions should be abolished, and that there should be only one sanitary authority in each place; that in places where there were either a Town Council, Improvement Commissioners, or Local Boards, such boards should be the authority; in all other places the Board of Guardians; that the Boards of Guardians should themselves undergo such modification as would insure their efficiency, thus securing at the same time a better system of Poor-law relief, which, the Report acknowledged, was closely connected with the subject in question. The Report recommended the Poor-law medical officers as specially fitted to be medical officers of health. In large towns, however, and other places where the guardians were not to be the sanitary authority, the Report recommends that the appointment of medical officers of health should be distinct from those of the unions; and that in those cases the mutual relations of the medical officers of health and the Poor-law union officers should be arranged by the local authorities, with the approval of the central authority; and that the medical officers of health should not be removable without the sanction of the central authority. The chief innovation in respect of the duties was that the officer of health should report to the central authority, and that he should inquire into the cause of death in all cases not otherwise medically certified. Many coroners' inquests would probably be thereby rendered unnecessary. The Commissioners proposed that forms of returns relating to health should be sent out from the central authority, to be filled up by the medical officer of health, such officer being empowered to call for returns from the Registrar of Births and Deaths, from nuisance inspectors, and others, in order to make his report as complete as possible. The importance of a registration of sickness was acknowledged, and it was recommended that at first all existing returns should be fully utilised by being forwarded to the central authority, and by being worked up by them. The Commissioners advised that inducements should be held out to encourage the study of State medicine in all its aspects.—The President said it seemed to him to be regretted that superior officers of health throughout the country, who had discharged their duties intelligently and efficiently, would be rendered so dependent on the central authority that they would not be likely to continue in office. He hoped provision would be made in the course of the Bill so that the services of these eminent men might be preserved.—Mr. MICHAEL traced the history of the Sanitary Commission from the time when it was pressed upon the Government by the Joint Committee of the British Medical Association and the Social Science Association, and considered the Report unsatisfactory, because the whole scope of the Commission had been changed, the metropolis had been excluded, and the men who urged the appointment of the Commission had not been asked for their information. He considered the appointment of Boards of Guardians as the sanitary authority quite a retrograde step. The medical officer of health ought to have a district and a salary large enough to make him independent of private practice. He ought also to have such powers given him as to be able to order the carrying out of improvements, undeterred by the small cottage proprietors who sat on these boards, and were the chief obstructors of all sanitary improvements.—Dr. HARDWICKE considered that improvements might be made in the Coroner's Court by which many inquests now held might be avoided.—The PRESIDENT said that many of the Poor-law medical officers were not in such an abject position as represented by Mr. Michael. For his part he would like to see the title of "Poor-

law" altered and some new name adopted, such as "assistant of public health". In this capacity we might have men to take medical assistance to the poor and to have care of the general health.—After some further discussion, in which Dr. Koss, Mr. Liddle, Dr. Gibbon, and others took part, the meeting separated.

MEDICAL SOCIETY OF LONDON.

MONDAY, FEBRUARY 27TH, 1871.

JOHN GAY, Esq., President, in the Chair.

MR. BARNES showed the Larynx of a man, aged 67, who had been accidentally choked by swallowing a piece of orange. Some time previously he had had an apoplectic fit, and the impression of his friends was that he had been seized with another. On opening the trachea, however, the piece of orange was found completely blocking up the entrance to the larynx. No further examination of the body was made.

MR. ERASMUS WILSON read a paper on Lichen Marginatus—the *Lichen circumscriptus* of Willan. Diagrams were handed round, showing the concentric rings and segments of rings which the disease formed. The disease was an inflammatory affection of the follicles. A cluster of follicular papillæ formed the ring a line or two broad. It had a tendency to spread in a serpiginous way. There was usually severe itching, and, in some cases, a gummy exudation. The details of two cases were given by Mr. Wilson. One was that of a man who had the disease chiefly about the perinæum, and who seemed to have recovered under a course of mercurial inunction and tonics. The other, a most inveterate case, occurred in a lady, affecting the whole body. Temporary improvement only was obtained. The disease was known as the Dartre of Hindostan, or Indian ringworm; it prevailed also in China; and Mr. Wilson had had put into his hands by Mr. Gay, a communication from Mr. Thomas Powell, medical missionary in the South Pacific Islands, an account of the disease as it was met with in the island of Samur, having been imported thither by two men who arrived in a boat from one of the neighbouring islands. Mr. Powell had called it Herpes Desquamans. Lately, Mr. Powell had discovered an insect of the family *Muscidae* in all stages of development on the skin of persons attacked. The application of the tincture of iodine had been useful in two or three cases. Mr. Wilson considered the disease to lie between eczema and lichen rubra; and Willan regarded it as an eczema; but, as follicular inflammation was the pathognomonic character of the disease, it seemed to Mr. Wilson more allied to lichen, and hence he called it lichen marginatus. In speaking of treatment, Mr. Wilson alluded to the experience of Mr. Nicholson, with whom he agreed as to the value of inunction of mercurials, while tonics and the ferro-arsenical mixture were given internally.—Dr. TILBURY FOX had seen the disease prior to the papillary stage. The term lichen marginatus would embrace all forms of Indian ringworm. Friction with a mixture of iodine and colourless oil of tar had proved a good plan of treatment in his hands.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 10TH, 1871.

J. E. ERICHSEN, Esq., Vice-President, in the Chair.

DR. TILBURY FOX showed cases of extensive and severe Ringworm of the arms and hands in seven men, in whom the disease had contracted from a white pony whose body was studded over with patches of Tinea Tonsurans, having analogous characters to those seen in ordinary ringworm of the scalp. The disease occurred only in those men who had groomed the pony; in three men brought to Dr. Fox by Dr. Drage, of Hatfield, and who were the ordinary grooms of the owner of the pony; and in four others, attendants of the Royal Veterinary College, where the pony had been sent for treatment. The patches of ringworm were chiefly in the front of the arms; they were large, more infiltrated than usual, and, in one case, markedly herpetic. In one of the other cases the central portions of the circular patches were studded with minute pustules. Dr. Fox attributed the severity of the disease to a large amount of fungus of a very luxuriant kind being sown at one time upon the arms of the men. In one man parasitic sycosis was produced. Hairs taken from the pony, exhibited under the microscope, were seen to be ensheathed in spores and mycelial threads, both of which invaded the shaft of the hair; and scales taken from a patch on the arm of one of the men were also placed under the microscope, and showed the mycelium of the fungus, which Dr. Fox pronounced to be the trichophyton, sprouting in all directions throughout the epithelial scales. Dr. Fox had never before seen the transmission of ringworm from the horse to man, nor had Professor Spooner in his forty years' experience; but an epidemic occurred some years amongst horses

and mules in the valley of the Borne in Savoy, and was reported upon by Professor Papa, in which a disease similar to that in the present cases was observed to be communicated to man from the horse. Bazin had also noticed the same occurrence. He remarked, however, that the transmission of tinea from the ox and calf to man was common enough. The seven cases illustrated the fact that ringworm of the surface varies considerably in aspect, according to the amount and rapidity of growth of the fungus, from a mere erythematous desquamating patch (so-called parasitic pityriasis) to a pustulating surface resembling and liable to be mistaken for an eczema; the two extremes being connected by transitional forms, represented by an abortive herpes, a well-marked herpetic patch, or a desquamating circular area bounded by an herpetic edge; the occurrence of so much effusion as is necessary to produce herpetic vesicles being dependent upon the amount of irritation set up. Veterinarians who asserted that "ringworm" was common in the horse, and might be communicated to man, had not brought forward any proof that the disease which they styled "ringworm" was really parasitic, and he had no doubt that many non-parasitic eruptions of animals were classed under that term. The disease in the white pony referred to was, as proved microscopically, undoubted tinea tonsurans. Dr. Fox replied to Mr. Erichsen, that there is no difference in the character of the fungus in man as compared with that of the horse, except that in the latter it is more luxuriant.—Dr. DUFFIN had seen two or three years ago a similar fungus affecting three children: it had been derived from a cat. He thought that the variety, *Marginatum*, which occurred on the scrotum and nates, might perhaps be due to riding on horseback.—Mr. COX remarked, that the disease was amenable to treatment. Mereury, carbolic acid, or any astringent, was sufficient to cure the disease; in the more obstinate cases, iron and arsenic. It was, he thought, common in its communicability to man. The grooms used the same remedy for themselves as for affected horses. Mr. Cox referred to a practical experiment in which Mr. Nettleship had produced the disease artificially in his own arm.—Mr. PRITCHARD had never seen a case like those shewn affecting the horse, neither had he seen a case of skin-disease communicated from horse to man.—Mr. COOPER FORSTER said that he had had a horse which became covered with ringworm, and both groom and boy became affected with a similar eruption.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, MARCH 1ST, 1871.

J. H. BENNETT, M.D., F.R.S.E., in the Chair.

DR. JOSEPH BELL showed a patient who had suffered from a very extensive Wound of the Fore-arm. A fowling-piece, which was being handed to the patient when shooting, went off within a few inches of his right hand. The charge struck the palm of the hand, blowing away the annular ligament, and exposing and partially destroying the superficial layer of flexors. The ulnar artery and nerve were shot away, and the radial artery was exposed. Half of the front of the fore-arm was deprived of skin. The case was treated from the first by the antiseptic method. No putrefaction took place. In six weeks the patient was made an out-patient, and he now has a very useful arm, with free movements of all the fingers, except the little one, which cannot be completely extended. The transverse diameter of the metacarpal portion of the hand is diminished in size.

DR. STEPHENSON read a paper on the Action of Mercury in Children. He remarked that recent physiological experiments tended to prove that mercury had no direct stimulant action on the biliary secretion; but, so long as these experiments were made only on healthy organs, they could never demonstrate that it had no effect on the pathological conditions which were interfering with the performance of the function, and the result of such experiments would never overturn its use after the manner of a rational empiricism. An analysis of its action in the intestinal affections of children showed that its good effects could be explained on other grounds than its mere cholagogue action; and, although this theory of its action was erroneous, mercury was still of service. Its use, however, should be limited almost wholly to its action as an occasional purgative. When given to produce its constitutional effects, the constitutional type or diathesis greatly determined its action. It was in subjects most liable to those external diseases where mercury was of service when applied externally, that internal affections were most likely to be amenable to its constitutional use. From the consideration of its internal use, illustrated by cases, the following conclusions were drawn. 1. Mercury may be employed to influence the constitution without any injurious effect on the general health. 2. To obtain its therapeutic action, it is not necessary to produce its visible physiological effects; it becomes injurious so soon as these are mani-

fest. 3. It is an error to suppose that children are less susceptible to its influence than adults; its effects are not to be looked for in its action on the mouth, but in its depressing effects and in deterioration of the blood. 4. It should be used only so far as is necessary, and in order to stimulate the nutritive changes in the tissues, not in the character of the constituents of the blood: for this purpose it should be used as a whip or spur only—that is, occasionally and at intervals, not continuously throughout the whole course of the disease. 5. Its use in modifying acute inflammatory action is very limited, and requires further observation; but there is no question as to its power over the products of inflammation, in starting the processes of resolution and absorption where these have been arrested; and, where other remedies fail in producing a change on morbid nutrition, it does in certain cases succeed in promoting a return to healthy action. 6. No number of cases improperly treated by mercury, no number of “constitutions shattered by its abuse”, no number of instances where disease has been cured without it, can in any way invalidate the results of its effects, where it has cured where other remedies have failed, or lessen in any measure the position here defended of a judicious use of the medicine. In infantile syphilis, the author had the greatest confidence in the good effects of mercury, but limited its use, as in other diseases, and stopped it whenever amelioration in the symptoms was observed, renewing it if necessary, and not giving more than one or two grains of grey powder daily for a fortnight. —Dr. GEORGE BALFOUR remarked on the interesting and practical nature of the paper, and agreed with the author's views on the treatment of chronic cases of pneumonia with mercury. —Dr. BENNETT had considerable difficulty in criticising a paper which discussed such important topics, containing as it did much assumption and little fact. What the author understood by “rational empiricism” he did not know; but, for his own part, he would define it as experimental therapeutics, based on a knowledge of anatomy and physiology. Dr. Stephenson maintained that mercury was not a cholagogue, and had no influence whatever in causing bilious stools in children. He also maintained that jaundice in children yielded to the simplest treatment. As he (Dr. Bennett) agreed with the author on these points, he need not dwell upon them. But Dr. Stephenson supported the ideas of those who maintained calomel to be a sedative, and had stated that eight or ten grains of calomel in an adult, and three or four grains in a child, when mixed with sugar and placed on the tongue, at once checked obstinate vomiting. In India much larger doses, viz., thirty grains, had been recommended as a sedative in dysentery and cholera. He (Dr. Bennett) believed such practice to be of no benefit, but, on the contrary, to be dangerous. If placed on the tongue and not swallowed, mercury was likely to produce violent stomatitis and salivation, such as occurred in the man Holden, whom he had presented to the Society at a former meeting. Dr. Stephenson also supported the employment of mercury in the syphilis of young infants. He (Dr. Bennett) did not consider it to be of any service in such cases, nor in those of diphtheria. Further, Dr. Stephenson called it a stimulus to the tissues, said it acted as a whip or spur in chronic inflammatory diseases, and had given three cases as examples. They were quite insufficient to support such a proposition, which if extensively followed would, in his opinion, be productive of great mischief. Dr. Stephenson had stated that mercury increased cell-growth and caused proliferation of cells. But did he possess any facts or series of preparations capable of supporting this assertion? Such an idea also appeared to be opposed to what was said in the first part of the paper; viz., that it caused anæmia and destruction of tissue. What was at present required in therapeutics was an effort to distinguish between the supposed action of remedies and the spontaneous cure of diseases. Wherever this in recent times had been carefully carried out, it had been shown that in many diseases violent remedies, such as bleeding and mercury, were opposed to a rapid recovery. He referred to the diminution in the mortality and duration of pneumonia, since antiphlogistics had been abandoned; and hoped before long to convince the Society, by a tabular view of cases, comprising the bad as well as the good ones, that in hepatic disorders mercury could only be considered as useless or injurious. —Dr. ANGUS MACDONALD agreed with much that Dr. Bennett had said; but, though he set out in practice a pupil of Dr. Bennett's, with a profound scepticism as to the use of mercury, he found himself, by experience, compelled to use it in many cases, from having seen the advantage of its use. —Dr. GEORGE BALFOUR, in answer to Dr. Bennett, showed that mercury, in acting as a destructive agent on tissue, acted chiefly on new and morbid tissue, and by its destructiveness did good. He also pointed out how large doses of calomel acted as mere irritant purgatives, and were not absorbed, while very small doses were absorbed by the system. —Dr. STEPHENSON, in reply, stated that, in his opinion, Dr. Bennett had not appreciated the points illustrated by his cases; and that Dr. Bennett did not distinguish between the use and the abuse of a remedy.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, FEBRUARY 25TH, 1871.

HENRY KENNEDY, M.B., Vice-President, in the Chair.

DR. EAMES exhibited a Liver which had undergone Cirrhosis. The specimen was removed from the body of an old pensioner, who had served in India, and had, while there, contracted habits of intemperance. He subsequently was much troubled with pils. When admitted to hospital, the patient complained of frequent vomiting, and his abdomen was greatly swollen, its circumference on a level with the umbilicus being thirty-seven inches. The urine was scanty and loaded with urates. There was considerable splenic enlargement. Paracentesis was performed with the aid of the pneumatic aspirator, and was followed by marked improvement in the symptoms. The recurrence of the ascites was met by repeated tapings—four in all, under which the splenic tumour gradually diminished in volume. After the patient's death, the liver was found to be greatly cirrhotic; its capsule was adherent, and traces of a remote attack of peritonitis appeared here and there throughout the abdomen. The walls of the stomach were thickened, while its cavity was lessened.

Dr. EAMES also showed the Abdominal Viscera of a man who died with symptoms of Uræmic Poisoning consequent on protracted renal disease. The earliest indication of the malady—swelling of the feet—declared itself three years ago. Six months later, the urine became “like porter,” and violent attacks of gastralgia, which were invariably followed by vomiting of a dark liquid, set in. The urine increased in amount until the average quantity passed in twenty-four hours was as much as 120 ounces. The specific gravity was 1010; the fluid was highly albuminous, and contained broken tube-casts and epithelium. On one occasion, 149 ounces were passed in twenty-four hours, having a specific gravity of 1008. Finally, the patient caught cold; the quantity of urine fell to twenty ounces, the density being 1012, and coma rapidly supervened. The kidneys had undergone amyloid degeneration; they weighed three ounces and a half each, and were hard and dense, with their capsules adherent. The liver was forty-eight ounces in weight, and was “car-nified.”

SURGICAL SOCIETY OF IRELAND.

FRIDAY, MARCH 3RD, 1871.

ALBERT J. WALSH, Esq., President, in the Chair.

MR. H. G. CROLY read a paper on some cases of what he regarded as acute Idiopathic Glossitis. The treatment he placed most reliance on consisted in the making of very free incisions in the tongue. In addition to such cases as had occurred in the author's own practice, he alluded to several, the notes of which had been sent him by Drs. Barry and Leeper. These gentlemen had also practised the treatment already mentioned with successful results. —Mr. B. W. RICHARDSON considered that glossitis was by no means a rare disease. He gave an interesting account of the literature of the subject, which dated back as far as the year 1740. —A long discussion ensued, in which Messrs. Hargrave, Tuffnell, Stapleton, Fleming, White, and Drs. H. Kennedy, Benson, and Mr. F. Porter took part.

Mr. MORGAN exhibited a contrivance for use in the palliative or almost radical treatment of Varicocele of the Cord, after which the meeting adjourned to the 24th instant.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, MARCH 10TH, 1871.

EDWARD CLAPTON, M.D., F.R.C.P., President, in the Chair.

DR. H. CHARLTON BASTIAN, F.R.S., read a paper on The Mode of Origin of Bacteria, and on the bearings of this question upon the Science of Medicine. After alluding to our imperfect knowledge concerning the mode of origin of many of the lowest kinds of organisms, he discussed the various views which are at present held concerning the nature and origin of bacteria. Their modes of reproduction and origin were spoken of under the following heads: Homogenesis: *a.* direct; *b.* indirect (Hallier); 1. Heterogenesis; 3. Archebiosis. The question of their origin *de novo* (Archebiosis) was intimately associated with another problem, as to the cause of fermentation and putrefaction. The evidence on this subject was very decisive. The author then alluded to the bearings of the facts concerning the heterogenetic origin of bacteria upon many problems in medicine, and briefly indicated how much what he considered to be the untenable “germ-theory” of disease was dependent upon doctrines of fermentation, such as had been advocated by Pasteur.

THE Subscriptions to the Association for the year 1871 become due in advance on January 1st. All which are not already paid, should be forwarded to the General Secretary, Mr. T. Watkin Williams, 13, New Hall Street, Birmingham; or to the Secretaries of Branches.

BRITISH MEDICAL JOURNAL.

SATURDAY, MARCH 25TH, 1871.

A RECTIFICATION OF FACTS.

WITH reluctance and pain we find ourselves called upon to notice, with the prominence and earnestness which the peculiar circumstances demand, a further series of bitter attacks upon the British Medical Association by the *Lancet*, conveyed in statements so rancorous and so utterly mendacious that they will attract the indignation of every member of the profession. We should pass them over in contemptuous silence, as unworthy of the notice of the Association, but for the possibility that silence in this case might be interpreted as an admission that there was a shadow of truth in these astounding fabrications.

I. It is not true, as stated by that journal, but is directly contrary to the truth, that the Medical Reform Committee of the British Medical Association is "a residual committee"; or that "it is an excrescence from the Council"; or that "it is formed by persons who had no sort of right (on this question) to represent any body but themselves"; or that it ever derived its claim to collective consideration "from five eminent persons who seceded from it",—and hence deserves the Saxon, if not elegant, appellation of "the Rump." This is a tissue of pure fabrications which the *Lancet*, having up to this time persistently suppressed and misrepresented all the facts, now invents in order to excuse itself, to further mislead its readers, and to insult and injure the Association. The Reform Committee was appointed by the general body of members at the annual meeting held in Newcastle in August last in the same manner as the successive "Direct Representation Committees," extending from August 1867 to August 1870, had previously been appointed at the annual meetings held in Dublin, Oxford, and Leeds, each appointment being preceded by a public and free discussion.

The Medical Reform Committee consists of—Dr. Charlton of Newcastle-on-Tyne, President of the Association; Mr. Whipple of Plymouth, President-elect; Mr. Husband of York, President of the Council; Dr. Falconer of Bath, Honorary Treasurer; Dr. Chadwick of Leeds, ex-President of the Association; Dr. Sibson of London, ex-President of the Council; Mr. Heckstall Smith, St. Mary Cray, President of the Metropolitan Counties Branch; Dr. A. P. Stewart of London, Secretary of the Metropolitan Counties Branch; Mr. Michael of London, Member of the Association, Barrister; Mr. Southam of Manchester, ex-President of the Lancashire and Cheshire Branch; Dr. Davey of Northwoods, Bristol, ex-President of the Bath and Bristol Branch; Professor Hughes Bennett of Edinburgh; The Rev. Professor Haughton, M.D., Registrar of Trinity College, Dublin; Dr. Edward Waters of Chester, ex-President of the Association and Chairman of the Committee; and Mr. T. Watkin Williams, General Secretary.

This Committee was specially constituted so as to include representatives from Scotland and from Ireland, as well as from the north, east, south, and west of England, and no mem-

ber has seceded from it. The whole of the Committee concurred in the statement of medical reform made to the Vice-President of the Privy Council. The "Bill of the Association," confided to the charge of Mr. Headlam, accorded strictly with the resolutions passed at the important and largely attended meetings held in Dublin, Oxford, Leeds, and Newcastle, and at the Special General Meeting called in London last year to consider the proposed Medical Bill of the Government. The Reform Committee had no power to depart from principles so repeatedly affirmed.

It will, we think, be generally admitted that the members of the Committee of the Association are men whose views are as liberal, as ripe, and as fully representative on the subject of medical reform, as those of any men who could be named—even as those of the seven gentlemen of the staff of the *Lancet* who constituted that recent and notorious "deputation of the profession in support of the *Lancet* Bill"—of which that journal, in reporting at length the proceedings, ingeniously concealed the purely family composition by the airy description of "a deputation of gentlemen interested in medical reform." The Reform Committee have given to the duties entrusted to them by the Association very great labour, time, and care: their frequent journeys from great distances for consultation with one another and with their parliamentary advisers have involved very heavy personal and pecuniary sacrifices. The incessant insult and malicious misrepresentation with which the *Lancet* attacks them are an odious abuse of journalism, which deserves to be branded in stronger language than we care to employ, and which we leave to the indignant reprobation of the profession.

It is true that five eminent members of the Medical Council—highly distinguished members of the Association, esteemed and respected by all of us—resigned their seats in the Committee of Council by reason of the vote of the last general meeting, which reaffirmed direct representation of the profession in the Medical Council to be a *sine quâ non* of medical reform. But it is not true that these gentlemen were ever members of the Medical Reform Committee. They have always been opposed to direct representation; and if the *Lancet* sees any matter for exulting in the step which they took, it can only be because its fear and hatred of the British Medical Association are stronger than its loyalty to the principle of direct representation, to which 10,000 members of the profession have given their adhesion, and of which the *Lancet* has repeatedly declared itself a prime champion.

II. We come now to another and hardly less serious matter. It is not true, as boldly stated in the *Lancet*, but directly and unequivocally contrary to the truth, that any statements have been made on behalf of the Association touching Mr. Headlam's course in respect to the Medical Amendment Bill of the Association otherwise than with his express previous sanction and declared subsequent approval. We again state, upon Mr. Headlam's authority, that the principles of which Mr. Headlam approves are: "1. Representation of the profession in the Council; 2. Improvement and equalisation of the examinations"—the principles affirmed throughout a series of years by the Association, and embodied in its Bill. Mr. Headlam entirely approves the Bill of the Association, and has adopted it. He believes the details of the *Lancet* to be impracticable. It is not true, but contrary to the truth, that the *Lancet* holds any letter from Mr. Headlam invalidating these statements, or that it has obtained any letter whatever from him on the subject since last autumn. It is not true, but contrary to the truth, that Mr. Headlam

withdrew his Bill—the Bill of the Association—from any preference for the *Lancet* Bill, expressed or implied, or from any other reason than that already stated in these columns: this was, that after he had given notice of his Bill, the framers of the *Lancet* Bill continued to press theirs. Believing the provisions of their Bill to be impracticable—as the Government has pronounced them to be—he refused to be party, or to make the Association a party, to what they insisted on—a medical squabble in the House of Commons.

The *Lancet* in its last publication claimed the right to employ plain Saxon words in order to conceal and pervert the truth, and to insult the Committee of the Association with a phrase utterly inapplicable to the facts. We have used now the privilege of plain language in order to proclaim the truth in firm and accurate accents. It is sad to have to expose a series of fabrications in a medical paper so malicious, and a course of misrepresentation so disingenuous, as to be almost without precedent in journalism. Saddest of all is it that the course which the *Lancet* has pursued has made medical reform impossible for this year, and it may be for some time to come. We have had to make to-day an unchallengeably accurate exposure of a series of pitiful fabrications put forward by a medical journal to injure a great medical Association, and to insult eminent representatives of great local medical branches labouring for a public object; of a deliberate resolution to sacrifice truth and subordinate great public interests to the advertisement of a paper; of a systematic violation of all the rules of courtesy and fairness towards medical men quietly and unostentatiously making heavy sacrifices for public objects at the call of their brethren. The circumstances are such as to compel an intense professional indignation; and duty to the profession and the Association would not allow the JOURNAL any longer to omit to brand as they deserve the misconduct and fabrications of the *Lancet*, in its repeated attacks on the Association.

HELP FOR THE CENSUS.

WITHIN a few days the householders' schedules will begin to be delivered by 32,000 enumerators to the five or six millions of householders of all classes in every part of the country. Upon the correct filling up these schedules the success of the census depends; and, as it is certain that a proportion of the population will be entirely incapable of understanding the nature of the inquiry, or of supplying the necessary particulars without help from those possessing the education of which they themselves are deficient, it should be the object of the better instructed part of the community to render all the assistance they can on such an occasion. Dr. Farr writes: "If the influential classes of society will expend a portion of the interval between this date and the 3rd of April in explaining the measure, in disseminating information among the poorer classes, and in persuading them, or even aiding them, to furnish exact returns, the operation will undoubtedly be as successful as it was in 1861, when the census was taken without the infliction of a single fine under the penal clauses of the Act of Parliament." The last part of this statement is not a little remarkable, if we think for a moment of the numbers of ignorant prejudiced people to be met with in our great cities and towns, and more sparsely (but relatively, perhaps, not more rarely) in remote villages and hamlets. It is a proof that the enumerators perform their share of the work effectively.

The information which the census supplies admits of innumerable practical applications. Looking at its medical uses, we know that it is required for determining the state of the public health, all rates of mortality being based on the numbers of the living. The fatality of diseases at different ages, the effect of age on the results of marriage and

of childbirth, and, in fact, all the great questions of life-probabilities, depend for the solution of their manifold problems upon that knowledge concerning the population which a census supplies. How interesting, for example, it will be to have the means of testing the value of some of the theories which have been put forward in reference to the movement of the Irish population, and of judging how far the hypothesis of a birth- and death-rate uniform with that of England, which both the Irish and English Registrars-General have adopted, has had foundation in fact. Other considerations of a like nature will, no doubt, suggest themselves to the minds of our readers, who, we are sure, need only to be reminded of any way in which they can facilitate the taking of the census to insure their ready acquiescence.

It appears to us, then, that where the medical practitioner can be of inestimable service in this matter is in the direction pointed out by Dr. Farr. There is a class, large or small, of our population who have an extraordinary and most unreasonable dislike to reveal their age. Without being more specific in our reference, medical men will at once understand our meaning, and, seeing that the item of age in the census-returns is of paramount importance, no opportunity should be lost of making it known that, while as to groups and sections of the population the ages are required to be ascertained and made public, the age of the individual is altogether merged in the mass. Hear what Dr. Farr says about this: "The inquiry elicits no real secrets, as the information asked of each man is known approximately to all his acquaintances; and even in the delicate matter of years numbered by gentlemen, or even by ladies, it is found that, although many may look, they are seldom thought, younger than they are even by their friends; so that to tell the truth is the right and the prudent course to pursue." This is the common-sense view of the matter, and we hope it will be that generally taken. Amongst the lower classes the age-question wears a different aspect. They have a smaller share than the classes above of that foolish sensitiveness, vanity, or what other motive it is, that prompts the concealment of age; ages with them are wrongly returned in the main from sheer ignorance or carelessness. The respect which the highest and lowest personages alike pay to the medical man, puts him in a position to advise or instruct them as to the giving their ages and other particulars required in the census-schedules; and if the opportunity be used by medical men of visits paid between now and the 3rd of April to mention the subject of the census, and to urge the "heads of families" not to obstruct but to assist the enumerators in completing the required information, the result could hardly fail to be a more accurate enumeration of the population than has ever before been taken in this kingdom.

UNPOPULARITY OF THE NAVAL MEDICAL SERVICE.

It is obvious, from the following incident, that there exists some cause deserving the attention of statesmen beyond lack of emolument which causes employment in the navy to be unpopular with the medical profession. At the recent competitive examinations for admission into the army and navy medical services, nearly twice as many the number of candidates presented themselves for the army as there were army vacancies; while the number of candidates for naval commissions was very considerably below the number of vacancies in the navy. After the required number had been selected for the army medical service, there remained eighteen gentlemen who had qualified themselves by their examination for admission into the army, and who would have been admitted had their services been required. As there was no opportunity of giving army commissions to those qualified competitors, and as there were vacant appointments in the naval service, the offer was made to give them naval commissions. Only seven out of the eighteen accepted the offer. The pay and emoluments on entering the naval medical service are higher than in the army service, and the expences on board ship so moderate that a medical officer can save no inconsiderable portion of his income; promotion, too, is quicker, and the rate of retirement higher, in the navy than

in its sister service. It is worth while to inquire officially what counteracting influences are at work to neutralise these superior advantages. We have not the least doubt that the popular and energetic Director-General, who now rules the medical service of the navy, will be fully able to indicate what the grievances are, if only an honest desire of knowing the truth on the subject be manifested in the quarters where alone, whatever their nature may be, they can be rectified.

TWENTY thousand pounds have been distributed in donations among the charitable institutions of London by Mr. Richard Wallace, the chief heir of the Marquis of Hertford.

DR. CLEMENT DUKES, M.B.Lond., formerly House-Surgeon at St. Thomas's Hospital, has been appointed Medical Officer of Rugby School, in place of Dr. Farquharson, resigned.

AT a meeting of the Social Science Association at Adam Street, Adelphi, on Wednesday next, the 29th instant, at 8 P.M., Mr. W. H. Michael will read a paper on the Report of the Royal Commission on the Sanitary Laws.

THE second pair of houses of the National Hospital for Consumption (Ventnor) was opened on Tuesday, March 21st, in commemoration of the marriage of the Princess Louise, by whom the foundation-stone was laid on behalf of the Queen.

THE Countess of Portsmouth has been instrumental in establishing a cottage-hospital at Chulmleigh, near Eggesford House, for the benefit of patients who require more generous living and better nursing than they would be able to obtain at their homes.

WE see with pleasure that the Academy of Medicine has declined to strike off the roll the names of their eminent German colleagues. It has adopted patriotic resolutions, and protested against the bombardment of the hospitals and museums of Paris and other cities.

WE are compelled to postpone our report of the proceedings of the Medical Teachers' Association, who met on Friday, March 17th, to consider the teaching of "Practical Physiology and Practical Surgery, and communications from the Royal College of Surgeons thereon."

IT is, we believe, proposed to hold the next International Ophthalmic Congress in London, as being the soil most favourable just now to the neutral discussion of scientific subjects in an atmosphere clear of the unhappy passions and sufferings which have been evolved out of the Franco-German conflict.

A SOLICITOR at Portsmouth has been remanded on a charge of administering "a certain noxious thing unknown" to procure miscarriage and for concealment of birth. One of the bottles in the lady's bedroom contained a fluid including the essential oil and the infusion of pennyroyal. Dr. Parsons stated that this fluid would not cause the effect mentioned in the indictment. Dr. Evans, of South Street, South Kensington, expressed an opinion the opposite of that given by Dr. Parsons.

WE are very glad to learn that some parts of the subject discussed at the meeting of the Metropolitan Counties Branch of the British Medical Association, of which we furnish a report in another column, will be taken practically in hand by some of the members of the Society for the Organisation of Relief who were present at the meeting. It is obvious that for practical effect we must have an effective lay cooperation in this matter among the managers of charities. It will be satisfactory to find a practical result grow out of the action of the Branch, and we shall hope that the subject will be prosecuted with vigour.

MEDICAL QUESTIONS BEFORE PARLIAMENT.

THE Council of the Metropolitan Counties Branch has re-appointed a Parliamentary Bills Committee, and it will proceed to consider certain Bills

now before the House of Commons involving medical interests and questions of State Medicine—among them, the Coroners' Bill and the Adulteration of Food Bill. It will be well for members interested in the subjects of these Bills to procure copies of them (which we will forward on application), and to send their suggestions or observations for the consideration of the Committee.

BABY-FARMING.

A MAN and woman in Manchester have been charged with the wilful murder of an unknown male infant, and with attempting to murder another male and two female children. The man has been acquitted, the woman remanded for the purpose of her formal commitment to the assizes for trial. The evidence points to the suspicion that laudanum had been given to the children, indications of opium having been found in the stomach of the one who died. In the course of the inquiry, two "young ladies" gave evidence as to having left children in the care of the accused.

MEDICAL FEES IN COURT.

IN a case of cutting and wounding tried last week at Sunderland Police Court, Mr. Blumer, surgeon, who was under subpoena to attend, refused to be sworn until his expenses were paid. The clerk advised the magistrates that he was not compelled by law to be sworn until his fee was paid. The opposing solicitor said he should carry the question further, and asked that the decision might be noted. Mr. Blumer acted very properly. It is intolerable that the attempt should be made to obtain the opinions of medical experts without fee. It is, however, often made, and in some instances unwisely submitted to.

POISONED SOCKS.

ALTHOUGH the cause of much well-attested injury, the use of poisonous dyes for socks and under-clothing is still continued. At a recent meeting of the Medical Institution, Liverpool, an interesting case was related by Mr. Edgar Brown, Surgeon to the Dispensary for Skin-Diseases, of the injurious effects of poisonous dyes. A gentleman had been wearing a pair of socks striped with two colours, viz., purple and yellow. No ill effects were noticed except on two occasions, when he had been dancing for some hours in patent leather boots. The following days the skin of his feet became inflamed in stripes corresponding with the stripes on the socks, presenting an appearance described as that "of an inflammatory tiger." An analysis of the dyes was made by Dr. Campbell Brown, Lecturer on Chemistry at the School of Medicine, who found that the colours were due to the presence of azuline and pionine, both derived from carbolic acid. An interesting point in this case is, that these dyes may apparently be worn next the skin for an indefinite time with impunity, so long as the heat and moisture essential to their absorption are not also present.

IMPOVERISHMENT AND ADULTERATION.

REPLYING to a question of Lord E. Cecil's touching the milk in the Shoreditch and Holborn Unions, which, as we mentioned last week, had been found largely watered, Mr. Stansfeld said he could hardly admit that the statements amounted to what the paper itself (the *Milk Journal*) called "an exposure", because the result, as he read it, was this—that, among the samples of milk which had been analysed, many were supposed to have been lowered by admixture, but none to have been adulterated. Under these circumstances, he hardly thought that a case had been made out for inquiry with a view to applying a remedy. He was free to confess, however, that it might be useful that some inquiry should be made into the method by which contracts for milk were granted; and he would take the subject into early consideration. We can hardly suppose that the President of the Poor-law Board intends seriously to announce an intention of tolerating that the provisions supplied to our workhouses should be "lowered by admixture", provided only that they be not "adulterated" (which, we presume, means mixed with poisonous or injurious materials). If no "inquiry with a view to applying a remedy" be called for when paupers' milk degene-

rates into half milk and half water, how can the transformation of half the paupers' tea into chopped hay (which, like water, is cheap and harmless) demand "inquiry with a view to applying a remedy"? The substitution of British gum and sand for workhouse-sugar, possibly of tallow for workhouse-butter, of plaster of Paris for workhouse-flour, should, on these principles, be mildly tolerated, if not warmly approved. We are almost tempted to ask whether our economical Administration meditate including among the reforms in store for the English nation the abolition of the English pauper by the method thus encouraged. The nation would not perhaps acquiesce without scruples in the employment of prussic acid for the accomplishment of the reform in question; neither would it suffer that paupers should be put on what were palpably starvation-rations. It would be a more ingenious, though not perhaps a much more humane method, to put them on an ample and liberal ration, and then to allow free scope to the operation of unrestricted commercial enterprise, which has already transformed half the paupers' milk into water, and which, under the influence of decided government encouragement, would not be slow to go to much greater lengths. An effective and general impoverishment of workhouse dietaries would be an admirable method for the total extinction of pauperism.

INFANT MORTALITY AMONG THE UPPER CLASSES OF SOCIETY.

THE Directors of the National Life Assurance Society are anxious, in order to carry out a scheme for educational and other endowments, to obtain data as to the rate of mortality prevailing among children in the upper classes, upon which to base the calculation of the necessary tables of premiums. In the Registrar-General's Returns, all classes are given without distinction; and therefore it would be impossible to arrive at any definite conclusion as to the viability of children in any particular rank of life. To overcome this difficulty even approximatively will be a great labour, and requires not only much perseverance on the part of those who have taken the initiative, but hearty co-operation in those to whom they appeal for information. When we consider that during the decade 1851-60 four million deaths were recorded for England and Wales, and that of these nearly two millions occurred in children under five years of age, we cannot help regarding with interest any undertaking that will point out where the brunt of this wholesale slaughter takes place. We know, as a rule, that it occurs among the poor and neglected; but, whilst this gross fact is palpable, it will be highly useful also to glean some light not only as to the rate of mortality at early periods of life in the upper classes, but as to the number of children born of various marriages contracted at different ages. An appeal has already been made to our profession by circular, which contains a simple form to be filled up by the fathers of families. The object of the Society is an eminently practical one, and of great importance to those who, for the purposes of endowment or education, desire to see introduced a scheme of early assurance on an equitable basis.

DEATH FROM CHLOROFORM.

WE are much indebted to Mr. R. W. O. Withers of the Salop Infirmary for the report of a case of death from the administration of chloroform which has this week occurred in his practice. Mr. Withers observes—and we entirely and warmly concur in the opinion—that a brief public record of such cases should always be made. It has been our endeavour for some years to make this record as complete as our information will allow; and the profession is much indebted to many and various correspondents who have from time to time presented them through the JOURNAL, with a brief note of cases which would otherwise have escaped notice and record. In the present case an inquest was held on the 3rd instant. From the evidence it appears that the patient was a man suffering from local abscesses and fistula, for which latter Mr. J. D. Harries was about to operate. The following extract from Mr. Withers' evidence affords the necessary details.

We placed the patient in a convenient position, and I placed half a drachm of chloroform on a cone of lint, such as I produce, and applied

it over the patient's mouth and nose in the usual way. I repeated that, and it was during the third half-drachm, I believe, that the patient made the remark to Mr. Harries that it did not have any effect upon him. I continued the administration, and he passed into the second stage. He appeared to take it well, but slowly. After he had been in the second stage a little time he became more violent than usual, and we both made a remark about it, and the chloroform was discontinued. Although at that time deceased was not properly under its influence, we thought we might manage to complete the operation. He was turned upon his left side, and the same instant I noticed that his breathing stopped and his pulse too. The tongue, as is usual in such cases, was drawn across the aperture of the windpipe. I at once laid hold of it and began artificial respiration. We douched him well with cold water, applied ammonia, and did everything we possibly could to restore animation. For an instant our efforts seemed to be of some avail, but breathing ceased again, and he was dead. I was present at the *post mortem* examination yesterday. I heard Mr. Harries give his evidence, and I coincided with it. All the organs of the body were healthy, excepting that there was an immense amount of fat. The cause of death was, no doubt, paralysis of the heart. I cannot tell exactly in how many cases I have administered chloroform—something like six hundred cases, I believe. I have never had a death before, although I have often seen unfavourable symptoms. I was giving the seventh half-drachm when we thought it advisable to leave it off.

Mr. J. D. Harries (one of the surgeons of the Infirmary), Mr. S. Wood, and Mr. Henry Fenton, all bore emphatic testimony to Mr. Withers' care, skill, and success, in administering chloroform.

BABY-FARMING.

THE necessity for regulating baby-farming is shown again by a case at the Lambeth Police Court, in which a respectable woman, having incautiously accepted charge of an infant without a contract of any kind or certificate of birth, has been saddled with the care of the child for life, after the payment of eight shillings. We trust the child may find good care under such unfavourable circumstances, and have a long life. But this helpless little being has no one to protect it, and nothing to rely on but the kindness of its involuntary foster-mother.

QUEKETT MICROSCOPICAL CLUB.

THE annual *conversazione* of this Club at University College, on Friday evening, was largely attended. The objects provided comprised most of the optical novelties of the year, and the members assisted to exhibit objects of interest. Photography was well represented. A series of photographs of Indian temples and scenery was kindly lent by the India Office; and frames of photographs were lent by Mr. J. Van Voorst, Mr. John Foster, Mr. E. Kiddle, and Mr. A. Shapcott. Mr. Apps exhibited at frequent intervals the remarkable electrical effects produced by his well-known induction coil. Perhaps the chief attraction was an exhibition on the screen, by the oxy-hydrogen light, of a series of transparent photographs illustrative of the scenery of the Franco-Prussian war, contributed by the London Stereoscopic Company, with an explanatory lecture by Mr. James Martin.

THE MURPHY ANNUITY FUND.

A MEETING was held at the house of Dr. Arthur Farre, Hertford Street, Mayfair, on the 17th instant, for the purpose of deciding as to the best course to pursue in reference to the present position of Dr. Edward Murphy. After some discussion, it was decided that it was desirable to raise, within the next two months, sufficient money to purchase an annuity of £52 a year for Dr. Murphy, and that, so soon as the money necessary to secure such an annuity shall have been obtained, the subscription list should be at once closed. It is estimated that about £400 in all will be required. It was further agreed to invest the capital in the hands of two trustees for the purchase of the annuity, and that the proceeds should be applied to the assistance of Dr. Murphy at certain intervals, and in such a manner as would appear best calculated to secure the end which subscribers had in view in aiding the fund. Dr. Arthur Farre has kindly undertaken the office of treasurer, and subscriptions may be sent either to him or to Dr. Tilbury Fox, the honorary secretary to the fund.

DEATHS OF PROFESSORS WAGNER AND NIEMEYER.

AMONG the victims whom the medical profession has furnished in connection with the recent Franco-German war, have been two men of more than common note—Professor Albrecht Wagner of Königsberg, who died at Dole on February 15th; and Professor Felix von Niemeyer of Tübingen, who has died lately at Nancy. The cause of death in both cases was typhoid fever, contracted in the discharge of duty. Dr. Wagner was well and favourably known in Germany for his works on the Resection and Regeneration of Bones (translated a few years ago by the New Sydenham Society), on Hydrophobia, Diabetes in connection with Carbuncle, Resection of Nerves, etc. On hearing of his death, the Crown Prince addressed to the Albertus University at Königsberg a letter expressive of his regret at the occurrence, and his esteem for the deceased. Dr. Wagner had been attached to the army of General von Manteuffel as surgeon-general. The name of Dr. Felix von Niemeyer has become well known among us through the translations of his excellent *Text-Book of Practical Medicine* and his *Lectures on Phthisis*. He was Director of the Field Ambulance at Nancy. In the deaths of Wagner and Niemeyer, a great loss has indeed been sustained by medical science.

INCREASE IN HUMAN LONGEVITY.

AMERICAN vital statistics seem to confirm the conclusions arrived at by European statisticians, that there has been a general increase in the length of human life. The average rate of mortality in England and Wales was, in the first forty years of the eighteenth century, 340 in 10,000 living; from 1821 to 1860, it was 207 in 10,000 living. From statistics collected by Dr. Edward Jervis in the *Atlantic Monthly Magazine*, the deaths in Boston, from 1728 to 1752, appear to have been 1 in 21.65 of the living; from 1846 to 1863, they were only 1 in 42.08—about half as numerous as in the previous century. From a comparison of ancient and modern longevity, it appears that in the middle of the nineteenth century the life of all classes in England and the United States was fifty per cent. larger than that of the best among the Romans at the beginning of the third century. Dr. Wellington, in his annual discourse before the Massachusetts Medical Society, further illustrates the increase in longevity by some valuable local statistics. He observes that many causes have combined to produce this cheering result; and among them may certainly be included an improved treatment of disease. This he supports by reference to hospital records. In the Massachusetts General Hospital, the proportion of deaths to admissions, from 1860 to 1870, was eight per cent.; for the preceding forty years, it was ten and two-tenths per cent. The percentage of the number “discharged well”, on the “total admitted”, from 1860 to 1870, was 56.6; for the preceding forty years, it was 46.5. The statistics of the New York Hospital in New York City, and of the Pennsylvania Hospital in Philadelphia, are of a similar character. The annual report of the State Board of Health for 1869 contains a table, giving the mortality from consumption in Massachusetts during each of the sixteen years from 1853 to 1868, inclusive. From this table it appears that consumption in this State is diminishing in fatality. Comparing the first group of five years with the last group of five years, the annual gain in each 100,000 of the population is 54 lives; giving, as the actual saving of life in the last five years, 3,440 persons, or 688 in each year; and the improvement seems to be going on. In the practice of midwifery, there has been signal improvement during the last two hundred years. It has been shown from the mortality bills of London that, for twenty years ending in 1680, 1 in every 44 delivered died; while, for twenty years ending in 1820, only 1 in every 107 died. Thus the number of parturient mothers lost during the last years of the seventeenth century was more than double the number lost during the first years of the nineteenth century. In St. Bartholomew's Hospital, London, from January 1st, 1862, to December 31st, 1868, there were 5,734 deliveries, with but 21 deaths, being 1 death in every 273 delivered. It is fair to infer that the medical statistics of London, in this matter, will not differ materially from those of other cities and towns in Europe and America.

SCOTLAND.

It has been decided by the Barony Parochial Board, Glasgow, to purchase ground, to the extent of 160 acres, on the estate of Woodlie, in the neighbourhood of Lenzie Junction, Dumbartonshire, for the purpose of erecting a farm-asylum capable of accommodating four hundred patients.

ST. ANDREW'S UNIVERSITY.

MR. FROUDE delivered a valedictory address as Lord-Rector of St. Andrew's University, on Friday of last week, to a large audience. The subject of his address was Calvinism, which he handled in a masterly manner.

THE GREENOCK INFIRMARY.

THE Trustees of the Greenock Hospital and Infirmary have approved of a report by Dr. Littlejohn of Edinburgh, recommending “that, as a convalescent house in a salubrious locality is urgently required, Auchneagh House should be purchased for the purpose; and that in epidemic years, as the Fever Hospital fills, a shed should be erected of such dimensions as to contain at least forty patients.”

EDINBURGH ROYAL INFIRMARY.

AN amateur theatrical performance was given by the members of the Edinburgh University Dramatic Club in the Theatre Royal on the 15th instant, in aid of the funds of the Edinburgh Royal Infirmary. An excellent prologue, written for the occasion by Lord Neaves, elicited numerous bursts of applause from the crowded audience. The parts in the various pieces were for the most part well sustained, and several of the amateur actors displayed considerable power of representation.

SCOTTISH INTERUNIVERSITY SPORTS.

LAST year a proposal, which originated in Edinburgh, was made that sports similar to those of Oxford and Cambridge should be held annually between the students of the Scottish Universities. The proposal met with considerable favour, but owing to some differences in the preliminary arrangements with one of the Universities, it was thought advisable to postpone the first meeting for another season. Accordingly, arrangements were made this year to hold the first Scottish Interuniversity sports in Edinburgh at the Academical Club's grounds. These came off on Saturday with very fair success, three of the Universities being represented—those of Edinburgh, Glasgow, and St. Andrews. It is to be hoped that Aberdeen, which is quite able to hold its own, will put in an appearance next year. These sports will tend in many ways to promote that feeling of sympathy between the students of one University with another, which is certainly not a marked feature of Scottish college life.

IRELAND.

THE authorities of the Belfast General Hospital have appointed to the office of Consulting-Surgeon their former Surgeon, Mr. William Mac Cormac, now of St. Thomas's Hospital.

THE BELFAST OPHTHALMIC HOSPITAL.

THE annual meeting of the Governors and subscribers of this institution was held lately. The report stated that 1,215 persons had been treated during the year, making a total of 33,401 since the opening of the hospital in 1844. In the out-department, 985 persons were treated for diseases of the eye, and 160 for diseases of the ear. The number of in-patients during the year was 70. The cases were all severe. The income for the year was a little over £230. It was pointed out that the amount of subscriptions was comparatively small, and the hope was expressed that the hospital would receive more support from the public than had hitherto been allotted to it. *En passant*, we may remark that the account of the proceedings affords an instance of a statistical fallacy which sometimes vitiates hospital reports. The general report, as above mentioned, gives the total number of patients during the year as 1,215; the medical report, on the other hand, speaks of the weekly attendances as having been 6,760.

VACCINATION AND SMALL-POX.

THE Poor-law Board have issued a circular requesting that, during the prevalence of small-pox in the London district, Boards of Guardians shall refrain from sending paupers to their settlements in Ireland.

THE Surrey Militia cannot be called out by reason of the prevalence of small-pox in the neighbourhoods from which they would be summoned. Might they not be "revaccinated and disinfected"?

SEVERAL Boards of Guardians throughout the country are following the Marylebone Guardians in revaccinating the tramps after their bath, if it appear necessary. This is an useful precaution. This class of persons are very apt to spread infection.

THE Commissioners in Lunacy have directed that revaccination be practised on the inmates and staff of all the lunatic asylums throughout the kingdom. It is not at all a superfluous or premature measure. Severe outbreaks of small-pox have, we understand, occurred in more than one large establishment of the kind.

AT the London Hospital, every patient in the Hospital at the present time being vaccinated, and those subsequently admitted being vaccinated day by day, the House Committee have, with the sanction of the professional staff, removed the restrictions as to the admission of the patients' visitors, imposed in consequence of the epidemic of small-pox.

ON REVACCINATION.

MR. ROBERT ARGLES writes to us as follows.

The statistics of revaccination are far from being so complete as those of vaccination; for this reason, and also because the results of revaccination are generally said to be, and certainly have proved in my own hands to be, very different this season from those obtained by others in former years, it appears to me worth while to detail the proportion and degrees of success which I have met with in the operation lately.

The total number of revaccinations done by my partner and myself since January 1st of this year (before which date I kept no statistical account) was 253, but of these I have been unable to obtain the results of 9, leaving 244 to be dealt with. In order to give exactness to the details it is necessary that I should define what I mean by the several degrees of "perfect success," "modified success," and "none."

The first class of cases was characterised by a circular, or approximately circular ridge or wall of vesicle round a depressed centre, usually of a dark brown or blackish colour, which circular vesicle varied in diameter from that of a goose-quill to that of a fourpenny-piece; an areola of greater or less extent surrounded each: to this class the "perfect" are carefully limited. In the "modified," an angry pimple of greater or less size, with a pustular head to it, and an inflamed areola round the base, was the result. By "no success," I mean that the abrasion scabbed and healed like an ordinary wound.

These terms are those used by Dr. Seaton, in his valuable paper on vaccination, in Reynolds's *System of Medicine*, from which source I have also taken a statistical detail of the results of revaccination in the Würtemberg and British armies, which will serve as a measure of the results hitherto usually obtained. I have reduced the large numbers there given from per 1000 to per 100, and taken the mean of several series so as to make them comparable with my vastly fewer cases.

Total revaccinations, 244—Perfect, 180; modified, 56; none, 8.

Success.	My own.	Würtemberg Army.	British Army.	British Recruits.
Perfect ...	73.7	31.9	37.5	43.6
Modified ...	22.9	24.4	27.9	25.8
None ...	3.2	44.3	35.0	31.1

The proportion of perfectly successful revaccinations this year is very striking, being 73.7 per cent. against 43.6 per cent. (to take the very highest of the results in a former year), and the small number of failures most remarkable. I am perfectly aware that a source of fallacy may be suspected to lie in the small number of my cases, but I have heard from several medical friends that a similar result has been observed by them.

A point of great importance and strictly germane to the subject, is how the little operation may best be performed. The plan which I adopt is that of scratching and thus denuding the cutis vera, in the usual situation, over a surface about half the size of a threepenny-piece. Into this surface I immediately rub with deliberation the charge of the point (if points be used) before denuding any further spots; the mixed blood and serum

issuing from the abrasion is always abundantly sufficient to dissolve effectually the charge without moistening and thus diluting the lymph. It is no part of my proposed object to discuss the relative merits of the many different ways and means of vaccinating; but I will mention in passing that a patient, just returned from a protracted residence in New York, assures me that crusts are the media extensively used there for vaccinating. In a house where lately there was an alarm of small-pox, and my supply of charged points was exhausted, I used the crusts broken down on a piece of glass and moistened with half a drop of water; out of seven vaccinated, five had perfectly characteristic arms. The great majority of the cases here enumerated were persons over fifteen years of age. Out of the whole number eight had had small-pox—of these five took perfectly and three in the modified manner. Curiously enough, the only bad arm which occurred, that is, the only one of the whole number vaccinated in which effects shewed themselves beyond what might be described as fairly normal, took place in a gentleman who had had small-pox, and who had, I know, been carefully yet unsuccessfully vaccinated eight years ago. In several cases the success was very perfect, although in each three or four large well-defined cicatrices of infantile vaccination existed.

THE BRIDGWATER CASES.

AT the Quarter Sessions at Bridgwater a true bill was found against Roberts and Bovett for refusing to produce their children when summoned under the Vaccination Act. The Recorder charged the jury that "the general principle of the law of this country was that those who violated or refused to obey a law, made for a public purpose and for the public good, were guilty of a common-law misdemeanour. It might be a nice distinction, in point of law, whether this applied to the disobedience of a summons; but it would not be the province of the grand jury to consider the law on the subject. It would simply be their duty to deal with the facts of the case; and if, by examination of witnesses, they found the facts to be as represented, viz., that the parties were summoned before the justices and required to produce their children, and that they did not produce their children, it would be their duty to return a true bill."

VACCINATION.

SIR,—I think it is now time that the public vaccinators should make known their experience of the system of having one, instead of many vaccinators. During the last twelve months of my office as Public Vaccinator to a third part of the city of Worcester, I vaccinated 156 subjects. During the last twelve months of my office as Public Vaccinator to the whole of the city, I vaccinated 789 subjects, *five times the former number*. At the time when I was appointed sole vaccinator, the Act was almost ignored, and scarcely any children were brought to the station. Being in some measure wholly responsible (practically) for the carrying out of the Act, I made *very frequent* appeals to the Board of Guardians, the consequence of which has been "the issue of public notices on several occasions"; "distribution of hand-bills"; "appointment of a vaccination officer, and the successful prosecution of defaulters before the magistrates", etc., etc. There has lately been a good attendance of applicants for vaccination at the station (which was appointed, at my suggestion, in the centre of the city); and I believe that in a short time almost every child will be accounted for. The advantage of using *fresh lymph* (which I have done in every case since I have been sole vaccinator), and having a large number of subjects to select from, is, beyond all doubt, very great. It is no small advantage for local and surrounding practitioners to know where they can always obtain lymph without fail. I have scarcely refused one applicant as yet. Last week I supplied one country practitioner with three dozen points for revaccination, and to-morrow I shall send four or five dozen to two more. This in itself is no slight aid to the extension of the benefits of vaccination. I am, etc.,

WM. WOODWARD, M.D., Public Vaccinator to the Worcester Union.

Worcester, March 3rd, 1871.

SIR,—I wish to know what are the powers of *public vaccinators* as to taking lymph from healthy children. The other day at one of my stations, a village school-room, two out of three mothers objected to any lymph being taken from their children, they being perfectly healthy, with well-developed vesicles. As I had several children waiting for vaccination, this was a great impediment to me. One mother objected only because "the pock was not at its height"—as she had been told by some clever neighbour. The other mother said her husband objected to any lymph being taken from the arm, and she would fetch him to talk to me, which she did. Of course I was much annoyed with the stupid ignorance of these women, and threatened to withhold the certificate if they persisted. Ultimately, after a long argument, wasting much valuable time, I was permitted to vaccinate one child from each one. I wish, therefore, to ask what powers the Act gives the public vaccinator in this matter, and also what other action I could or should have taken in the case above quoted. I am, etc., A PUBLIC VACCINATOR.

March 1871.

** The 17th section of the Vaccination Act directs that a child who has been vaccinated by a public vaccinator shall be again taken on the same day in the following week to the vaccinator, in order that he may ascertain the result of the operation, "and, if he see fit, take from such child lymph for the performance of other vaccinations." But though this provision is contained in the Act, there is no penalty provided for the refusal on the part of the parent to allow lymph to be taken from a child's arm, though there is a penalty for neglecting to take the child for inspection. We fear, therefore, that it is in the power of parents to make this portion of the Act a dead letter.

WE are compelled to omit noticing some important communications from public vaccinators. They have been duly attended to.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Queen's Hotel, Birmingham, on Thursday, the 30th day of March, 1871, at 3 o'clock P.M. *precisely*.

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary*.

13, Newhall Street, Birmingham, March 15th, 1871.

WEST SOMERSET BRANCH.

THE spring meeting of the above Branch will be held at the Railway Hotel, Taunton, on Thursday, March 30th, at 5 P.M.; J. CORNWALL, Esq., President.

Gentlemen intending to be present at the dinner (at 5 P.M.), or to read papers afterwards, are requested to give notice to the Honorary Secretary.

W. M. KELLY, M.D., *Honorary Secretary*.

Taunton, March 4th, 1871.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT SOCIETY.

THE next meeting of this Society will be held at the Crystal Palace Hotel, Norwood, on Thursday, March 30th. The Chair will be taken at 4 P.M. by Dr. DUKE.

Papers, etc., are promised by Dr. Braxton Hicks, Dr. Galton, Dr. Adams, Dr. Dalton, etc.

Dinner at 6 P.M.

HENRY T. LANCHESTER, M.D., *Honorary Secretary*.

Croydon, March 12th, 1871.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL AND CLINICAL SECTION.

THE next meeting of the Section will be held on Friday next, March 31st, at the Midland Institute, Birmingham. The Chair will be taken at 3 o'clock precisely.

BALTHAZAR W. FOSTER, M.D., } *Honorary Secretaries*
T. VINCENT JACKSON, }

Birmingham, March 22nd, 1871.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT MEDICAL MEETINGS.

A MEETING of the members of the above district will be held at the Steyne Hotel, Worthing, on Tuesday, April 18th, at 4.15 P.M. H. COLLET, M.D., in the Chair.

Dinner will be provided at 5.45 P.M. precisely. Charge, 5s., exclusive of wine.

All members of the South-Eastern Branch are entitled to attend, and to introduce friends.

Gentlemen who wish to make communications at the meeting, are requested to inform me *at once*, in order that a notice thereof may be included in the circular convening the meeting.

WM. J. HARRIS, *Honorary Secretary*.

13, Marine Parade, Worthing, March 20th, 1871.

METROPOLITAN COUNTIES BRANCH: ORDINARY MEETING.

AN ordinary meeting of this Branch was held at the Charing Cross Hotel on Friday, March 3rd, at 8 P.M.; T. HECKSTALL SMITH, Esq., President, in the Chair. There was a large attendance of members and visitors, including Mr. W. H. Smith, M.P., Sir Charles Trevelyan, Mr. Corrance, M.P., Major Walker, M.P., Mr. Shaw Stewart, Mr. Kennaway, M.P., the Rev. W. H. Fremantle, Mr. Randolph Robinson, Mr. Bosanquet, Mr. E. H. Holland, etc.

New Member.—Dr. F. H. Parsons, of Barking, was elected a member of the Branch.

THE MEDICAL ASPECTS OF PAUPERISM.

A paper on this subject was read by W. FAIRLIE CLARKE, M.A., M.B., F.R.C.S.

After some preliminary observations, Mr. Fairlie Clarke said that one in every twenty of the population depended for support upon the rest of the community. There were in this country a million of paupers, requiring an annual expenditure of seven millions and a half sterling.

This pauperism had several medical aspects. Of the dependent poor, many had been reduced to their present condition by sickness. How was this to be prevented from occurring? Of the dependent poor, a large number were sick or infirm. How were they to be dealt with? There ought to be within the reach of every poor person three modes of medical relief: (1) a sick club or provident dispensary; (2) a free hospital; (3) the Poor-law Medical Service.

1. There ought to be a sick club or provident dispensary for every district, which would receive all on the cheapest and easiest terms compatible with security and the adequate remuneration of the working staff. There ought to be such a sick club in every village and town, and, in our large cities, one for at least every twenty thousand of the population. In manufacturing districts—for example, at Northampton, Coventry, and Derby—such provident dispensaries seemed to meet the wants of a large class of the community. In London, however, there were only eleven; whereas, calculating from the proportion in such towns as Leamington and Rugeley, there ought to be, at any rate, a hundred. Probably this was owing to the excessive number of medical charities in the metropolis, and to the difficulty of obtaining accurate information about applicants. To meet the first difficulty, Mr. Clarke suggested that the existing free dispensaries should be converted into provident dispensaries. They would thus diminish the excessive number of medical charities, and they would add to the sources from which the industrious poor, who were anxious to pay for themselves, could get assistance in sickness. To meet the second difficulty, Mr. Fairlie Clarke thought that much assistance might be obtained from the Society for Organising Charitable Relief and Repressing Mendicity; and he suggested that this Society would further its work by endeavouring to promote the formation of provident dispensaries.

2. There ought to be within reach of every poor person a *free* hospital; *i.e.*, one where no money was taken from the patient. If the patient could afford to pay anything, such payment ought to be made to a provident dispensary or to a medical man, not to the hospital, which was a house of charity. That our hospitals were grossly abused there could be no doubt. They were abused by the subscribers themselves who sent in unsuitable cases; and they were abused by the lower middle class, who applied to them instead of supplying themselves with proper attendance. The author had no great faith in the various plans proposed for testing the applicants to hospitals, and weeding out unsuitable cases. He thought the best plan was to let the scope and purpose of our hospitals be clearly understood, while at the same time the medical profession did all that it could to provide skilful attendance on terms suited to the different grades of society. These two things having been done, the good sense and right feeling of the community might be trusted to use, and not to abuse, our great national charities.

3. The Poor-law Medical Service should be within reach of all. The amount of pauperism caused by sickness had been differently estimated, from 72 to 40 per cent. Probably it would not be far wrong to say that half of our paupers were made so by sickness. The sanitary conditions of the poor went far to explain the causes of much of the illness prevalent among them. To improve their surroundings was the first step towards preventing sickness. Hence it would seem only reasonable that the medical relief and the sanitary care of the sick poor ought not to be treated independently of each other, as at present; one being under the control of the Poor-law Board, the other under that of the Privy Council. It had been proposed that the Poor-law medical officers should be appointed also deputy officers of health for their districts. If they had the power at once to put in operation the sanitary acts, an improvement in the courts and alleys of our great cities might be hoped for. But even more might be expected. For the great evils of the present state of English society—*e.g.*, for drunkenness—the most reasonable remedy would be to improve the poor man's house and home; and it would tend to this desirable result if our parish medical officers had the power of promptly enforcing the sanitary acts. The medical relief supplied by the State to the poor ought not to be inadequate, nor too distant. There ought to be no district so large that the poor could not have easy access to the parish doctor in time of sickness. This principle had been recognised by the Poor-law Board, but it had been very imperfectly carried out.

It had been proposed that dispensaries should be established in this country, similar in many respects to those instituted in Ireland under the Medical Charities Act in 1852. Under this Act, everything that had to do with the medical and sanitary care of the poor of the district was carried out by means of the dispensary. As one result of this system, while there had been a liberal expenditure under the head of medical relief, the total amount of poor-rate had fallen since 1852. At that date, the poor-rate for the whole of Ireland stood at £1,109,630. In 1860, it had fallen to £509,380. Since that time it has risen, probably in consequence of the wide-spread commercial distress, to the

present outlay of £848,070. But in England, in 1860, the poor-rate was £5,454,964, and had since risen to £7,498,061—an increase in the last ten years of £2,043,095 for 21½ millions of people; while in Ireland, the increase had been £338,690 on 5½ millions. Mr. Clarke supported his argument by further statistics, drawn from those collected by Dr. Joseph Rogers. Thus, Derby, with a population of 51,049, spent nothing on drugs; the total cost of medical relief was £393, and the total poor-rate £11,508. Londonderry, with a population of 59,742, spent £343 6s. 10d. upon drugs; the total cost of medical relief was £1,540, and the total poor-rate £6,476 8s. 4d. Gateshead, with a population of 59,409, spent nothing upon drugs; the total cost of medical relief was £412 19s., and the total poor-rate £17,535 11s. Waterford, having a population of 60,000, spent £504 7s. on drugs; the total cost of medical relief was £1,652 15s. 9d., and the total poor-rate £12,020 7s. The Irish system seemed, also, to be economical of life. From the returns obtained on the motion of Mr. W. H. Smith, it appeared that the average rate of mortality during the six years ending 1868, was in England 1 in 43 of the population; in Scotland, 1 in 44; in Ireland, 1 in 60. The average annual mortality from preventable disease was, in England, 1 in 190 of population; in Scotland, 1 in 194; in Ireland, 1 in 308. The figures also showed, as a general law, that an inadequate system of medical relief was invariably accompanied by a high poor-rate and a high death-rate.

Again, the Vaccination Acts had been thoroughly carried out by means of the Irish dispensary system, and small-pox had been all but “stamped out” in the sister isle.

In Ireland, there was a more perfect system of registration than in England. In Dublin, and in some parts of the country, a system of registration of disease was being carried out. Medical men on this side of St. George's Channel had long desired a registration of the diseases of the civil population, such as has been in operation for some time in the army and navy. On a small scale, the registration of disease had been effected in some of our towns by voluntary associations—notably at Newcastle, Manchester, and Salford; but it had not been undertaken on a large scale, or with the authority of the Government. And yet what was wanted was not merely to know the death-rate of a district, but to be able to measure the rising tides of epidemic disease, and to say in which direction the infected gales were blowing.

The cost of all drugs and dispensing should be defrayed by the guardians: the medical officer ought to be paid for his time, advice, and skill. The great majority of Poor-law medical officers received from one shilling to two shillings a case, and out of this sum they had to find medicines and dispensing. But Dr. Guy had shown by statistics, based upon sixty London hospitals and dispensaries, that the cost at those institutions for drugs alone was 2s. 5½d. a case. How, then, was it possible for the parish doctors to do justice to their patients upon their present salaries and contracts? The inequalities in the payment of Poor-law medical officers were most unsatisfactory. The payment ought to bear some relation to the work done; and the salaries should be resettled, as far as possible, upon an uniform basis, and regulated by a code of general orders, having statutory force. The medical officer's position, tenure of office, and duties, ought to be defined by the same code of general orders; and his salary ought to be paid either altogether from the consolidated fund, or partly from that fund, and partly from a county rate. If other duties—*e.g.*, those of Health-Officer or of Registrar of Disease—were required of him, he might well look to the central authority to secure his position and pay his salary.

Medical relief ought to form an important element in any system of Poor-law administration; and yet, in preparing the poor-laws, medical relief had always been thrust into a subordinate position. Thus arose a state of things which was shocking to humanity; and when, a few years ago, some scandalous cases of neglect occurred in our workhouse infirmaries, public attention was aroused, the subject was brought before Parliament, and Mr. Gathorne Hardy's Act was passed. But further legislation must take place ere long. Mr. W. H. Smith had intimated his intention of asking for a Royal Commission to inquire into the operation of the poor-laws in the metropolis, and, if the Commission were granted, there could be no doubt that the subject of medical relief would receive its due share of attention. An alteration in the system of poor-law medical relief was required, not merely on the grounds of humanity, but because it would be economical both of life and of money.

Since 1834—the last time when the Poor-law, as a whole, was revised—medical knowledge had made great progress; but the present system of State relief debarred that large class of sick persons who fell under the care of the Poor-law from reaping the full advantage of the progress made. The best science of the day ought to be brought to bear upon the treatment of the sick poor in the Poor-law Medical Service no less than in hospitals and dispensaries; and this would tend

not only to the good of the sick poor themselves, but also to the advantage of the whole realm.

The Commission which Mr. Smith had suggested would be a most appropriate sequel to the Royal Sanitary Commission; and from the action of two such Commissions much might be expected. It might be hoped that the divided authority now regulating medical matters in this country would be consolidated into one strong, comprehensive system; that sanitary legislation and preventive medicine would be much more efficiently carried out; that those whom the State undertook to relieve in time of sickness would be properly cared for; and that as the result of these measures, there would be an improvement in the public health and a material diminution of the evils of pauperism.

Mr. ERNEST HART proposed the following resolution:—“That, in the opinion of this meeting, the time has arrived for a revision of the Poor-law, with a view to greater efficiency and economy in the treatment of the sick and infirm paupers.”

He said that his main object in bringing forward this motion was to lead the discussion to a practical result. It ought, as far as possible, to support Mr. W. H. Smith's motion for a Parliamentary inquiry into the administration of poor relief in London. He had, through the kindness of Sir T. Watson, received an early copy of the Report of the Royal Sanitary Commission; and it was highly satisfactory to find that the recommendations of the Commissioners agreed with the views for which the Association had contended, and which had been put forth in Mr. Clarke's paper. The Association had urged that the Poor-law medical officers should have preventive as well as curative functions; the Commissioners recommended that they should be Assistant Medical Officers of Health. This was a great step; for, in order to strike at the root of pauperism, it was necessary to strike at the root of preventable disease. Secondly, the Association had contended, and the Commissioners had recommended, that Poor-law medical officers should hold their commissions direct from a central authority, and not be at the disposal of Boards of Guardians. In the third place, it had been urged, especially by Dr. Stewart—to whom a debt of gratitude was due for his exertions—that the registration of disease should be carried out by the Poor-law medical officers; this recommendation, which had some time ago been urged on Mr. Göschen, was also endorsed by the Commission. All who had given attention to the subject felt strongly that the difficulty in dealing with pauperism and sickness arose from the fact that they were dealt with by separate central authorities; and the necessity of union had been always pressed on the Government by the Association. It was now proposed by the Commissioners, in their Report, that the department of Public Health should be separated from the Privy Council, and placed, with the administration of the Poor-law, under the care of a Minister of Public Health and Poor Law. The Association had proposed that local government, while it was retained, should be better organised, and brought into connection with a strong central authority; that areas should be rendered coincident as far as possible; and that local powers should be made uniform and combined, rather than distributed. In all these respects, too, the recommendations of the Commission agreed with the views of the Association. He believed that it was the intention of the Government to introduce a Bill in accordance with the recommendations of the Commission. The report, however, was only applicable to England, exclusive of London; and there would be, he thought, work in London for the Commission asked for by Mr. W. H. Smith.

Dr. JOSEPH ROGERS seconded the resolution, and expressed his gratification with the paper, and with the presence of many gentlemen who were not connected with the Poor-law medical service. He had been connected with the service since 1834; and had become more and more convinced of the evils brought on the poor and the community from the insufficiency of medical relief. To discuss the matter on the mere ground of the insufficient remuneration of the Poor-law medical officers would, he believed, never succeed in attracting public attention to the matter; but, when it was shown that the public themselves suffered, then their attention would be aroused. He had had great difficulty in obtaining evidence of the insufficiency of the medical relief of the poor; because the system was so bad everywhere that it was difficult to contrast one district with another. Two and a half years ago, however, he had asked, and readily obtained, information from the Irish Poor-law Commissioners, which clearly showed that, with an efficient system of medical relief, pauperism, expenditure, and the death-rate, were all diminished. This had been conclusively shown by the return obtained in the House of Commons by Mr. W. H. Smith. As examples, he stated that, while in Ireland the cost of medical relief was one-sixth of the gross sum expended on the poor, in England it was only one-twenty-seventh. To take a special instance: in Newcastle-on-Tyne, the cost of medical relief was £835 out of a gross sum of £43,000; while in Belfast it was £3,700 out of £22,000. The expenditure on medical relief was un-

equally distributed in England; and, where the medical officer had most work, there, as a rule, his remuneration was the worst. In this respect, Bethnal Green and St. George's (Westminster) afforded a striking contrast. How was this deficiency of medical relief in England to be explained? Mr. Villiers had told him that, at the time of inquiry into the administration of relief to the poor, the question of sickness was never discussed—that the Commission had received no instructions to consider it. It had been held by some that the proper plan was to get medical attendance for the poor at as cheap a rate as possible. He differed entirely from this doctrine.

Dr. HAWKSLEY said that the question brought forward for discussion was highly important, considering the large amount of money spent in the relief of the poor with unsatisfactory results. Few were better qualified than medical men to deal with the subject; inasmuch as their opportunities brought them into contact with the pleaders for charity in their most undress form. All must have observed that, though the applicants expressed their material wants, these were as a rule dependent on moral wants. If workmen, it would be generally found that they were unfit—either inefficient or of immoral habits. Preventable sickness was also a most important cause of pauperism. Among the remedies, he placed provident dispensaries in a very high position; the poor ought to be induced to become self-dependent. The hospitals, too, should be reformed. There ought to be a means of investigating the condition of applicants, and those who could afford to pay for medical attendance should be excluded. The societies for repressing mendicancy might here afford valuable assistance.

SIR CHARLES TREVELYAN was convinced that not only moral but physical evils were increased by the infringement of the primeval law, that all should earn their bread by the sweat of the brow. The working class in London was to a great extent maintained by charity; there were provisions for free birth, free schooling, free food—doles of all kinds, soup-kitchens, etc.; and relief in sickness must be considered, with regard to its effects, in connection with all other kinds of relief. This abundance of gratuitous aid was a great cause of attracting to London the idle and reckless from distant parts, and even from foreign countries; and hence arose overcrowding and consequent disease. The root of the matter lay in the reform of the out-door relief of the poor, and of all our charities. He approved of the proposal to extend provident dispensaries. As to the Irish system, he feared that its extension to England might favour pauperisation; and he would entreat the medical profession to look well to this. Hospitals he regarded not merely as places for affording medical relief, but as medical schools; and as places where the highest skill and opportunities in the treatment of disease could be made available—those recipients of the benefits, who could afford it, being, of course, expected to pay.

Mr. CORRANCE, M.P., expressed his gratification with the clear manner in which the author of the paper had treated his subject. As to the relief of the poor, he thought he now saw the way to a solution of the difficulty. He had brought the subject before Parliament two years ago; but a difficulty arose as to who should pay for the various items of poor-relief. He had intended to express the opinion that there should be a well-adjusted system of Government allowances, according to circumstances. He did not think that drugs should be paid for by Boards of Guardians; the cost of them should be defrayed out of the consolidated fund. At present, the Government paid one-half of the relief of the poor; but which half? It was an extremely unwise system to limit the amount of Government grant by the amount of local relief; it was penny wise and pound foolish. The medical relief was by it reduced to a minimum; for it could not be expected that Boards of Guardians would increase their expenses, or do otherwise than endeavour to get medical attendance for the poor at the cheapest rate. The system, too, brought the Poor-law medical officer into constant collision with the guardians when he ordered a more liberal diet or other necessities for his patients; and the sufferings of the poor were thereby increased. Not only should drugs be paid for out of the consolidated fund, but the cost of diet, etc., should be supplemented from a Government allowance. He expressed his satisfaction at the intention of Mr. Smith to move for a commission of inquiry.

Mr. W. H. SMITH, M.P., had paid much attention to the subject under consideration, and thought that Mr. Clarke had very fully grasped the matter in his paper. He believed that in Ireland the receipt of medical relief did not pauperise, while in England it did so, rendering the recipient a charge on the Poor-law fund, while it gave him, for the time, more of comfort than could be derived from sources of his own providing. There was a great distinction between the questions, whether the principle of the extension of Poor-law relief was one which tended to the moral benefit of a great population, and whether the Irish Medical Charities' Act was the best in all the circumstances. He agreed with the remarks made as to the demoralising influence of the London

charities, both great and small. It was a great temptation to the working man to get relief, when he could procure it for nothing. With regard to the hospitals, he doubted whether, as a rule, persons were admitted as in-patients who were not fit objects of relief; but there was great reason to doubt whether the out-door relief was administered in a way consistent with the moral advantage of its recipients. Instances of the improper application of this relief could be readily multiplied. Another point which had been mentioned was the chaotic condition of medical affairs in London. He had lately been taking part in the proceedings of the Commission on the Vaccination Acts; and had learned that the concurrence of three authorities was necessary for the appointment of a Vaccinator; and that, after all this, there was no one whose duty it was to see vaccination duly carried out. There was, indeed, some provision in the Act for this; but it was left to the local Boards to make the appointment, or leave it. The Poor-law medical officers had charge of the poor when sick; and in addition, there were the medical officers of health, appointed by vestries or boards of works; and the authorities appointing these two classes of officers had not continuous jurisdiction. Again, there was a body to administer the Poor-law hospitals in London; and also a Metropolitan District Asylums' Board, having charge of the hospitals for fever patients and imbecile paupers. All these distinct bodies, which did not co-operate, ought to be amalgamated under one authority. With regard to the question of centralisation, he would advocate a reform of the arrangement of duties in districts. The legislature should lay down duties for local authorities, and insist on their performance. He would rely much on the assistance of the medical profession in the inquiry of which he had given notice.

Mr. ALSAGER HILL said that the subject of the relief of the poor in the metropolis required to be treated differently from that in the country. As to provident dispensaries, the whole scheme had been explained in Knight's *Year-Book* long ago; and yet it was hitherto adopted to a small extent only. The cause of this slow progress was to be sought in our careless and foolish administration of charity; and he believed, also, that an unwise sectarianism had interfered for harm. Provident dispensaries might be established even in the poorest districts. He had lately read a statement as to the inability of a certain district to supply the necessary machinery for the administration of its own charities; and in the same paper was an account of a contribution of £84 to the Victoria Hospital, having been raised by the working men of that same district. In Marylebone, with which he was best acquainted, there was a combination of foolish philanthropy with reckless extravagance. In the homes of the poor, who professed themselves unable to provide relief, he often found several trashy publications. He did not wish at all to discourage the intellectual improvement of the poor; but, if they could afford to buy such publications as those to which he had referred, they could surely provide for medical relief. What was wanted, was a careful organisation of relief over the whole area, and not the separate operation of sects, which was one of the difficulties in the way of provident dispensaries. He would suggest that the more advanced medical students might be entrusted with the visitation of the poor in the neighbourhood of hospitals; and he believed that, if those who had the opportunities of visiting the homes of the poor would interest themselves in the formation of provident dispensaries, much good might be done. It seemed to him that there was a fallacy in the comparison of the results of the Poor-law systems in England and in Ireland. In Ireland, there was little or no out-door relief; and there were not in that country, as there were in England, those great industrial centres, which produced a high death-rate. Hence the death-rate of the two countries could not, when taken in mass, be correctly compared.

Dr. DRYSDALE thought that Dr. Rogers had plainly shown that the Irish medical relief system had diminished pauperism. He agreed with Mr. Clarke's observations on provident dispensaries, and hoped that some action would be taken.

Mr. SHAW STEWART expressed his gratification with the paper read. If it were really desired to diminish pauperism, it was necessary to grapple with the subject. He did not think that the administration of the medical charities was influenced by sectarianism. He could not agree with Mr. Clarke's proposal to make the hospitals more free; for he had seen instances in which the freedom of admission tended to remove the feeling of shame, persons going to them who would be ashamed to apply to a governor for a letter of admission. The abolition, for poor-law purposes, of small parishes, and the enlargement of unions, as carried out by Mr. Göschen, was a great step gained. There was a fault in the scheme of provision for contagious diseases, that it was arranged for paupers alone, while persons entered the hospitals for these diseases who would never have come into a workhouse.

Mr. BENSON BAKER said that in the parish of Marylebone there was

a small-pox hospital for persons who were not paupers, into which, he believed, about ninety patients had been admitted. There was a close relation between disease, poverty, and crime. Overcrowding led to deterioration of the general health; and the impairment of nervous and muscular power attending this, led to the frequenting of public-houses—which always thrive best near overcrowded localities. He had already pointed out the relation between neglected sickness and crime, and adduced some instances in evidence.

Dr. HEYWOOD SMITH said that there were great abuses in our hospital administration. An investigation had been carried on by a Committee appointed at a meeting held some time ago under the chairmanship of Sir William Fergusson; five subcommittees had been appointed and had made reports, which were about to be amalgamated. Until there was sufficient pressure to ensure the formation of provident dispensaries, there should be better provision for relief to the out-patients of hospitals. Some of these might be required to make payments, which, perhaps, might be graduated.

Dr. A. P. STEWART wished to do a simple act of justice to three gentlemen who had given indispensable aid in the proceedings which led to the appointment of the Royal Sanitary Commission. He referred to Dr. Acland, Dr. William Farr, and Dr. Rumsey, whose influence was invaluable in the preparation of the necessary documents. He was happy to find that the Report of the Commission reflected the opinions expressed in the memorial laid before Government—a document the drawing up of which occupied months. Its framers took care to bring forward no statements or proposals which could not be maintained. With regard to provident dispensaries, he hardly hoped to see the system yet attain its proper importance. Twenty-three years ago, he advocated the cause of these institutions; but very little progress had been made up to the present time. The provident principle could alone arrest the development of pauperism; the natural effect of the Poor-law system, on the other hand, was to increase pauperism. Since the Poor-law Act was passed in 1834, about twenty-seven Acts had been passed for its amendment; but it was impossible by any amount of legislation to amend such a system. He was not prepared to say that some contribution should not be required from the out-patients of hospitals. The number of these applicants might be diminished at both ends—both among the pauper class and those who could afford payment; leaving only the indigent, or, as he preferred to term them, the struggling poor. He had repeatedly seen the process of descent from independence to pauperism among hospital out-patients. A patient would at his first attendance express his reluctance at being obliged to apply for charitable aid; the next time he came to the hospital, there would be no apology; the third time, the applicant would become *exigent*; then, perhaps, he would disappear altogether from the hospital, and it would be found that he had sunk into confirmed pauperism. The out-patient system was thus one of pauperism made easy. He was glad to find that there was a prospect of the relief of pauperism and the prevention of disease going hand in hand. The result of an improvement of sanitary administration would be a diminution of pauperism. Preventable diseases—such as typhoid fever—cut off children in comparatively small proportion; but they caused the loss to the community of multitudes of valuable lives—those of the adult population, the bread-winners, whose families then became thrown on the world. He had, some years ago, in conjunction with Admiral Percy, endeavoured to form a plan for obtaining the returns of out-patients from hospitals and dispensaries; the plan had not been carried out, but he believed that, if the number of out-patients who became paupers during one year only could be obtained, the return would be astonishing. There was another point which he would urge—the value of convalescent institutions for hospital patients. Three weeks spent in such institutions in the country would do more towards restoring health and fitness for work than three months of treatment in the out-patient department; and it would diminish that large class of applicants for pauper relief who consist of disabled hospital patients. He was delighted to hear that the Sanitary Commission proposed that a system of registration of disease should be carried out.

Mr. E. H. HOLLAND considered that it would be impossible to introduce a better system of relief of the poor unless the administration of the out-door hospital aid could also be taken in hand. Anything that would stop the abuses in this department would be valuable. The good sense of the public was not to be trusted; advantage was taken by persons of lax principles of the facilities for obtaining medical aid. The governors of hospitals should recommend patients for admission; and a careful inquiry into their circumstances should be made under the direction of the medical officers of the hospital.

The resolution having been carried, the meeting terminated with a vote of thanks to Mr. Fairlie Clarke for his paper.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL AND CLINICAL SECTION.

THE fifth ordinary meeting of the session was held on February 24th. Present: ALFRED BAKER, Esq., in the Chair, and thirty-six members and visitors.

1. Dr. HESLOP showed the Ribs of a Rickety Twin-Infant aged nine months. Their terminations at the cartilages were greatly swelled, so as to form knobs projecting chiefly towards the thoracic cavity. A vertical line of collapsed lung corresponded with these elevations, to the inner side of which the lung was very emphysematous. The spleen was firm and enlarged. The child had been mainly supported by corn-flour. He remarked upon the duty of medical men to inform mothers of the real nature of corn-flour, and to inform themselves of the nutritive properties of different kinds of food.

2. Dr. HESLOP also showed several specimens of Lungs, Bronchial and Mesenteric Glands, Liver, and Spleen, taken from children, with a view to illustrate Niemeyer's views of the relations of Cheesy Disease to Tubercle, whether the former be found in the lungs or in other organs. Death followed in one case from the generalised deposition of tubercle; in the other, from cheesy pneumonia without disintegration; but in neither case had phthisis proper been developed.

3. Mr. FURNEAUX JORDAN showed a sketch of a peculiar Congenital Deformity of the Upper Extremity.

4. Dr. HESLOP showed for Mr. C. J. BRACEY a boy aged 11, from whose Larynx a number of Polypoid Growths had been removed by external incision.

5. Dr. UNDERHILL brought forward five Tracheæ on which Tracheotomy had been performed for membranous croup at the Children's Hospital. In each of them there was a thick layer of exudation. The operation had been performed eight times since September last—twice for croup following scarlatina, once for diphtheria, once for œdema of the glottis following gangrene of the tonsils in enteric fever, and four times for membranous croup. The operation had been in each case unsuccessful.

6. Mr. RICKARDS showed three specimens (Heart, Kidneys, and Stomach), taken from a patient who had been under the care of Dr. Balthazar Foster for Chronic Kidney-disease. The kidneys were small, granular, tough, and contracted; secreting, up to within a few days of death, a fair amount of urine, containing about one-twentieth of its bulk of albumen and a few large hyaline and granular casts. The heart was much hypertrophied on its left side, weighing over thirty ounces. The stomach was the seat of several small ulcers located at the pyloric end, smaller curvature, and posterior surface. The largest of them proved fatal by perforation—a somewhat unusual complication. Under the microscope were exhibited sections of the kidneys, showing an enormous overgrowth of intertubular fibrous tissue, with hypertrophy of the walls of the arteries. The capsules of the Malpighian bodies were seen to be surrounded with a fibrous capsule of several times the normal thickness.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: GENERAL MEETING.

THE sixth general meeting of the present session was held at the Midland Institute, Birmingham, on March 9th. Present: THOMAS UNDERHILL, Esq., President, in the Chair, and thirty-six members and visitors.

New Members.—Mr. E. W. Orton, of Bedworth, and Mr. F. Thorne, of Leamington, were elected Members of the Branch.

Communications.—1. Dr. HESLOP showed the Larynx and Bronchial Tubes of a child, aged 5, whose tonsils had been excised in the Children's Hospital on February 25th. All these parts were covered with a diphtheritic exudation. Two days after the operation, the child was discharged, but was re-admitted on March 2nd. Nasal diphtheria was well-marked, and there was great enlargement of the cervical glands. Death took place on the 5th. Though there were some cases of sore-throat, of doubtful character, in the house of this child's parents, Dr. Heslop stated his belief that the diphtherial infection was in this case of hospital origin. On February 26th, a severe case of diphtheria was inadvertently admitted into the same ward. He insisted on the necessity of caution as regards the performance of surgical operations on children exposed to such risks. Dr. Heslop also showed the larynx of a child, aged 2½ years, coated with diphtherial membrane, who had been admitted on February 23rd into the same ward as the above, with severe cellulitis of the labia. Erysipelas spread from this point downwards to the legs and upwards all over the trunk, until it mounted to

the throat on March 6th. There was much infiltration of the skin. At this date, slight stridor was noticed, and on the next day death took place. Dr. Heslop remarked on the family relationship of diphtheria and erysipelas, as set forth by Dr. Greenhow, and well exemplified in some cases from the practice of Dr. Nicholson, late of Redditch.

2. Mr. RICKARDS showed a microscopical specimen illustrating the Circulation in the Human Liver.

3. Staff-Surgeon WATSON laid before the meeting a series of Pathological Drawings which he had made at Netley.

4. Mr. LAWSON TAIT showed the preparation of the bones of a case of supposed Excision of the Knee-joint. It had been performed by a well-known surgeon, since dead, but, owing to the section of the tibia having been cut in a very different plane from that of the femur, union had not taken place, indeed was impossible. The patient came subsequently under Mr. Tait's care, and he was obliged to amputate high up in the thigh.

5. Mr. TAIT also showed an instance of the "Channelled Polypus" of the Uterus which he had removed from a patient by means of the lithotrite about two years ago. Owing to the recurrence of the symptoms, he again visited the patient, in Yorkshire, but found that the tumour was more in the vesico-uterine pouch than in the uterus, and that interference was impracticable. Examination by means of the finger in the bladder had been of signal service in discovering the relations of the tumour.

6. Mr. BENNETT MAY exhibited a youth who had sustained a vertical Fracture of the Astragalus attended with separation of a portion of the bone, and subsequent firm consolidation of the joint. Some months previously, he entered the General Hospital, under the care of Mr. Goodall, suffering from obscure fracture into the ankle-joint, with much swelling. Severe constitutional disturbance followed, and an abscess formed, pointing over the external malleolus, and extending up the limb. At the bottom of this abscess, when opened, there lay a large piece of denuded bone, which gradually became detached and superficial, and was removed by forceps. It proved to be the right vertical half of the astragalus. Healthy reparative action at once followed, and the joint soon became firmly consolidated, at the same time retaining considerable power of flexion and extension. Mr. May also cited a case of a precisely similar accident, occurring about the same time, under the care of Mr. Bartleet. In this case, however, the fracture was horizontal, and the upper half of the astragalus (exhibited) was long in separating; the patient—an old man—ultimately suffering amputation of the leg. In these cases, it seemed as if the detached portion of astragalus, separated as it must be from all its attachments and sources of nutrition, acted as a foreign body in the joint, and, as such, was expelled.

7. Mr. HERBERT MORGAN exhibited and explained some new Midwifery Forceps introduced by Dr. Braithwaite.

8. Dr. JAMES THOMPSON, of Leamington, showed a specimen of Ruptured Abdominal Aneurism, taken from the body of a man who died suddenly after some weeks' suffering. He had an obscure tumour in the lumbar region, with great pain; and the diagnosis between abscess and aneurism was doubtful. The surgeon who saw him before death inclined to the belief that it was an abscess, and intended to open it; but death supervened in the night. The necropsy revealed an old aneurism of the abdominal aorta, opposite to the origin of the coeliac axis. It had apparently been ruptured for some time. The opening into the sac was nearly an inch in diameter, and the edges were, as it may be called, water-worn. The bodies of the last dorsal and two first lumbar vertebræ were eroded, and a large semi-solid clot was situated between the thickened peritoneum and the spinal column.

9. Dr. THOMPSON also showed a small piece of Cockle-Shell, about three-quarters of an inch in diameter, which had been removed from the Larynx. The child from whom it was taken swallowed it unconsciously. The symptoms presented by the child when first seen resembled a severe attack of croup in the early stage. An active emetic dislodged the foreign body with immediate relief.

10. Dr. THOMPSON also exhibited a photograph of an Acephalous Fœtus, born at full time, and by a natural labour. The case occurred in Jamaica in a negro woman. There were no bones in the calvarium, and the case might have been mistaken for a breech-presentation. The hands resembled those of a monkey. There was a cleft palate, and a double hare-lip.

11. Mr. VOSE SOLOMON read an account of a three weeks' Holiday in Holland and Belgium, with some account of their Hospitals.

12. Dr. JOHNSTON read a paper on Fatty Degeneration.

DONATIONS.—Mr. W. H. Smith, M.P., has given £500 to the fund for building the new wing of the Sanatorium, Bournemouth.—The Marquis of Bute has given £100 to the West of Scotland Convalescent Home at Dunoon.

SPECIAL CORRESPONDENCE.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Retirement of Skoda into Private Life.

THE winter session at our University closes on the 25th of this month; and on the same day ends the public life of one of the most distinguished of its professors. The definite announcement of his resolution to retire from his Chair at the end of this month has been the signal to all classes of professional men here to vie with each other in rendering to the professor a parting honour. The students of the University resolved to give him an ovation; the Association of Physicians (*Die Gesellschaft der Aerzte*) will place in their meeting-room a marble bust of their illustrious member; while both the *Doktoren Collegium* and the *Aerztliche Verein* will send to his house a deputation to present him with a congratulatory address. One of his clinical wards is to be named the "Skoda Ward", and to be adorned with his portrait, which will be unveiled on the morning of his last visit.

The students' ovation was celebrated on the evening of Tuesday, the 14th, and took the shape of a torchlight procession and the presentation of an address. The students entered most heartily into the matter; and, although meeting with much opposition and discouragement from the magistrates, carried it out with the greatest success. Nor was the movement confined to our own profession: all the faculties were represented in the procession, which must have numbered at least two thousand. Starting from the *Gewehrfabrik*—a building in the vicinity of the hospital, where several of the University classes are held—the procession moved along the open space of ground between the inner city and the Josephstadt, along the principal street of this suburb, and so to Skoda's residence in the Reiter Gasse. The weather was extremely propitious, and the evening sufficiently dark to show to advantage the line of fire as it moved along. The students marched two abreast, each carrying a brightly blazing torch; many were in full costume, with dark tunic, white trousers, high boots, cap of minute proportions, and sword at their side. Several flags, representing the various clubs, showed well in the red light of the flames; a choral company agreeably broke the blazing column with their coloured lanterns in lieu of torches; while enlivening the whole, and keeping the men together, were a couple of bands of music. The number of onlookers was immense. On reaching Skoda's house, the students marched past until that portion of the line in which walked the deputation appointed to present the address had reached the door, when a halt was made. The deputation entered, and with a few words delivered to Skoda the following address, richly bound in an ornamental cover, with an artistic frontispiece, and signed by two thousand five hundred students.

"Highly honoured Professor,—With painful emotions have the students of the Vienna University received the intelligence that you, highly honoured professor, have resolved to resign your professorship, and to depart from the midst of your scholars, who could with legitimate pride number you, until now, amongst the most illustrious ornaments of the Vienna *Alma Mater*. At a time when the science of medicine was still based on the ground of a rude empiricism—at a time when, in the recognition of disease, there were still drawn more or less fallacious conclusions from obscure observations—you arose as a reformer; and the victorious light of your logic and your indefatigable investigations dissipated the clouds of artificial hypotheses, and gave to the science of medicine an indestructible physiological foundation. By this means, not only did you lay the foundation of your imperishable fame, which in a short time spread over the whole earth, but the reflexion of the same streamed back as well upon the University in which you taught, and raised it at once in a wonderful manner to be the first in Europe. Countless numbers of students are now spreading abroad your health-bringing doctrines, and the scientific world bows before your name. We students are penetrated not only by the consideration that we lose in you one of our most famous teachers—a light of our University, whose world-wide reputation you have founded—but at the same time by another thought, that, by your retiring, a true friend and benefactor will be withdrawn. Great is the number of those to whom you, by your help and support, have lessened the bitterness of poverty, which paralyses the mind; but, before all, you have in the humane institution of the Association for Supporting Medical Students (which owes all to your disinterestedness, circumspection, and activity), founded a permanent remembrance of your beneficent love for the poor student. What you have done for science, the whole world praises. Of what you have done for the students the world is ignorant, for you did it without show, without boasting. So much the more deeply

and indelibly is it, therefore, imprinted upon the hearts of the students; and as long as any one of the young generation lives which acclaims to you words of heartfelt thanks, so long will there be lips to praise to posterity your name, imperishable in science, as a shining example of great and noble humanity, and of an immoveable firmness of character."

Skoda was deeply moved, and briefly thanked the deputation, which then returned to the street. Here a loud and ringing cheer was given by the students as the professor once more appeared on the balcony and thus addressed them.

"Gentlemen, this evening I can but thank you heartily for your kind sentiments; but I cannot forbear from showing you how much value I lay upon them. In making my acknowledgments to you, I wish that no accident may increase the oblation which you have brought me, and that this day may remain in the friendly remembrance of all of you."

Another cheer followed this speech; and then the choral company moved under the balcony, and delivered a song composed for the occasion. Another cheer, and then from the whole two thousand students arose the stirring words of the "Gaudeamus"; and, singing this, the procession moved away.

Several of the professor's most intimate friends were at his side during the ceremony—namely, Rokitsky, Hyrtl, Hebra, Arlt, Brücke, Zeissl, Braun, and others.

Vienna, March 16th, 1871.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

A PAMPHLET on *Working Men's Dwellings in Liverpool*, by Dr. French and the Rev. W. Beard, has just been most opportunely published. The authors point out at least one of the causes which contributes largely to the unhealthiness of the town, and they suggest the remedy. They show that "a third of the population of the second commercial city of the empire are living in houses which are a menace to morality, to order, and to health." The population per house in Liverpool is greater than that of other towns, being on average one house for every 6.7 persons, whereas the average for Bristol is 6.5, for Manchester 5.5, for Birmingham 5.0, and at Leeds 4.6. "The insufficiency of labourers' dwellings has been materially aggravated by mismanagement, so bad as to injure both tenants and landlords." The remedy suggested is the establishment of a society for the erection of blocks of model-houses on the plan already adopted to a limited extent by the corporation, and which has been found to succeed in London. The association to be worked not on philanthropic but on commercial principles. The authors very naturally suggest that the squalid homes of the labouring classes may be the cause of much of the prevalent vice of drunkenness, for "who can wonder at the existence of drunkenness where the nervous system is perpetually weakened by impure air." Without disputing the soundness of this view, so far as it goes, we are bound to say that, from personal knowledge of the habits of the population of this town, we believe that by far the largest proportion of intemperance cannot be traced to this cause. The vice unhappily prevails amongst classes far higher in the social scale than the labourer, and even amongst them it would very often, most generally perhaps, be found that it was the drinking habits of the well-to-do working men that drove them from a comfortable healthy home to a miserable court or cellar. With but too many, the amount of drink is only limited by the rate of wages they can earn.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

THE new buildings of Owen's College are being rapidly proceeded with, and it is confidently anticipated that October 1872 will witness the opening of the new class-rooms. The Infirmary and the new College are more than a mile apart, and some little inconvenience will accrue to the medical students in having to traverse this distance in going from their work in the wards to the Lecture Theatre; but this will probably be obviated in a great measure by some alteration in the hour for the delivery of lectures, so that they will not be allowed to interfere with clinical instruction.

Since the opening of the present session on October 1st, 1870, there have been upwards of eighty capital operations at the Infirmary. Among them, there have been two cases of ovariectomy under the care of Mr. Lund; both cases did well. Mr. Lund, strong in the belief in the pestilence which walketh in darkness, dresses all his cases on the most strict antiseptic principles; and that he has had two cases of resection of

the knee in which no pus (speaking correctly, there was a little pus, amounting to two or three drops, but even this was of the character which he terms "muco-pus") followed the operation, sufficiently attests the success of this method of dressing. He explains that it is not so much in rapidity of cure that this plan is preferable to the old, but in the greater safety with which the healing process is performed, and in the absolute immunity from pyæmia which it ensures to the patient. That the old plan is equal to the antiseptic method in rapidity of cure, was well illustrated by comparing two cases of resection which were under treatment in the Infirmary at the same time. The first was a case of resection of the elbow, in a man aged 33, under the care of Mr. Southam. The wound was dressed with tincture of benzoin every third day. The incisions were perfectly closed in six weeks, and the man had then fair use of his arm. The other case, which is fairly comparable with this, was one of resection of the knee by Mr. Lund. At the expiration of the same period of time, viz., six weeks, the limb was still in a Gooch's splint, slung in a Salter's swing, and pus was discharging from an abscess which had formed near the joint. This case, however, ultimately perfectly recovered. A very interesting case of lithotomy occurred at the Hospital, under the care of Mr. F. Heath, in the early part of the session. The patient, a youth aged 20, had suffered from symptoms of stone for some months. When the incision was made into the bladder, a reed or twig slipped from the viscus into the external wound. When extracted, it was found to be six inches in length, and was plentifully encrusted with crystals of triple phosphate. I do not think the lad ever confessed to knowing how the thing entered, but the Nemesis was sufficiently terrible and sufficiently plain to check any strict cross-examination.

Many cases of skin-grafting have been tried, both at the Hospital and elsewhere, with uniform success.

Though small-pox has not smitten us with the same heavy hand as Liverpool, still there is a very general revaccination going on in public and private practice, and the fact that there were sixty-nine cases of variola in the Manchester Workhouse alone last week, serves to show that the feeling which prompts the public is not the foolish fear of a phantom which is non-existent.

CORRESPONDENCE.

THE TEACHING OF PSYCHOLOGY IN MEDICAL SCHOOLS.

SIR,—I fail to see how or in what manner Professor Laycock's letter of the 18th instant overcomes the statement made in the leading article of your issue of the 25th February, that "in no single school of medicine in Great Britain does any teacher of practice of physic treat systematically, in his regular course of lectures, of those diseases of which psychological abnormalities are the leading symptoms." Doubtless Professor Laycock delivers a summer course of lectures on Medical Psychology; this he holds to be an "essential" part of his course of Practice of Physic, but admits that it is "distinct." Both terms may be accepted as correct; such teaching is "essential" in the sense of being necessary or important in the highest degree; his summer course is "distinct" in that a separate and distinct fee is charged for it. This forms an item of expenditure which few students are able to bear, as is amply proved by the fact that only three hundred have enrolled themselves as members of this class in eleven years. This, compared with the total number of medical students enrolled in the books of the University during the same period, is small.

Professor Laycock's syllabus is wide. It is open to question whether his students would not be more benefited by the restriction of the course to simple descriptions of insanity as it exists as a bodily disease, than by disquisitions on occult metaphysical theories which have little or no bearing on practice. All teachers of this department of medicine would do well to bear in mind the grand words of Griesinger: "It has been supposed up to the present time that the study of mental disease was distinguished by some difficulty, *sui generis*, and that the study of ordinary medicine had no direct bearing upon it; that the only entrance to psychiatry lay through the dark portals of metaphysics. And yet the other cerebral and nervous diseases, which, with the so-called mental diseases, form an inseparable whole, have not, so far as I am aware, been hitherto much elucidated by metaphysics; and, in Germany, the time has quite passed away when psychiatry could be developed from a specially philosophico-psychological point of view."

I incline to think that, if Professor Laycock had made himself as well acquainted with asylum practice as with teaching, the result of his inquiries would have been different. I am, etc., J. B. T.

THE NEW REGULATIONS OF THE COLLEGE OF SURGEONS IN REGARD TO PRACTICAL PHYSIOLOGY.

SIR,—It may not be generally known to the lecturers on physiology at the various schools that they have the choice of three plans for carrying out the views of the Royal College of Surgeons in regard to Practical Physiology. The three plans are :

1. A six months' course of lectures on the Theory of Physiology in the winter session, and a three months' course of Practical Physiology in the summer session.

2. A six months' course on the Theory during one winter, and a six months' course of Practical Physiology during the next winter: in other words, alternating winter courses.

3. A mixture of Theory and Practice during each winter session; or, in other words, a division of the practical course between two winter sessions with not less than fifteen lessons in each.

Having had occasion, as Dean of the London Hospital Medical College, to write to the College on this subject, I have received the very satisfactory intimation that either of the plans described would meet the requirements of the College. I am, etc.,

March 1871.

WALTER RIVINGTON.

THE SUBCUTANEOUS DIVISION OF THE NECK OF THE THIGH-BONE.

SIR,—A few lines will suffice to answer Mr. Brodhurst's lengthy letter. It is clear, now, that Mr. Brodhurst never has performed subcutaneous section of the neck of the femur, an operation which I performed, for the first time in the history of surgery, on the 1st of December 1869, with instruments specially devised for the purpose, and which I described and figured in your JOURNAL of December 24th, 1870. This operation has since been successfully performed by the method, and with the instruments which I devised, by Mr. T. R. Jessop of Leeds in two cases, by Mr. Furneaux Jordan of Birmingham, and by Mr. Jowers of Brighton.

In Mr. Brodhurst's published lectures in 1869, he omitted all reference to any operation of this kind. In republishing his lectures in his book on Deformities, subsequently to the reading of my paper at the British Medical Association at Newcastle in August 1870, he inserted a passage, p. 152, in which he appeared to claim priority of performance of my operation. It seems, however, that the operation mentioned by him was on the great toe, and Mr. Brodhurst has now abjured any claim of priority based upon it.

His claim, then, is now reduced to that which can be based upon an operation which he performed on the hip-joint in the year 1861, not at all of a subcutaneous character, or so described by himself in his various references to it; either in the *Proceedings* of the Royal Medical and Chirurgical Society, vol. iv, p. 97, or in his work on Deformities, p. 150, where it is also described, and placed in another category altogether, side by side with one of Dr. Barton's for establishing a false joint. This operation he performed "by making, in the first instance, an external incision to the extent of two inches and a half", then extended to five inches, so as to reach from the great trochanter to Poupert's ligament; through which extensive opening Mr. Brodhurst states, in his book on Deformities, p. 151, "I cut through the neck of the femur immediately below the head of the bone, and then gouged away the remains of the head and the dead bone from the acetabulum." To call this operation *subcutaneous*, requires no small courage. It is, as I have said, an afterthought subsequent to the publication of my case, and even of more recent date than Mr. Brodhurst's lately published book; and I must be pardoned for saying it does more credit to his ingenuity than to his candour. I am, etc.,

W. ADAMS.

5, Henrietta Street, Cavendish Square, March 20th, 1871.

[Here the discussion should end.]

FASTING OF NEW-BORN CHILDREN.

SIR,—Dr. Wiltshire has been misled by the above heading prefixed to my letter of February 21st, and therefore his reply in this day's JOURNAL does not quite meet the question I intended to ask. I am, however, much obliged to him for having noticed my letter; and if he does not satisfy my wish for information, the fault lies not with him but with me. I ought to have written "very young infants", not "new-born children". My inquiry was intended to apply to children a few weeks old, who had already begun to suck, and were wholly dependent on breast-milk. In a community like that of the "Samaritans," there must at all times be many puny infants suffering under various forms of exhaustive

disease. Would not the greater number of such children sink under a rigid fast of twenty-four hours, the merest moistening of the lips being forbidden? Would any, indeed, be likely to survive? That is the question which I wished to propose. But, besides the infants, how would it fare with adults wasting away under disease and old age? Would not this twenty-four hours' fast annually carry off so many both of young and of old as, in addition to the ordinary causes of death, would bring about the extinction of the community? I am, etc.,

London, March 18th, 1871.

JAMES DIXON.

ASPHYXIA BY CARBONIC ACID.

SIR,—In reference to some cases of suffocation by carbonic acid, noticed in the JOURNAL of March 4th, p. 238, as having occurred at Keith in Scotland, I find, in the number for February 4th, p. 134, that a similar case has been reported by Mr. Board, of Bristol. The fuel in the first case was of peat, and, in the second, charcoal. A discussion appears to have taken place at the meetings of the Edinburgh Medico-Chirurgical Society as to whether the effects were due to carbonic oxide or to carbonic acid. Those who served a winter in the Crimea were familiar with the use and effects of charcoal fires or stoves, and knew that the fumes extricated from it are deleterious only in the first stages of combustion. They are light and hot, and consist of carbonic oxide, and will suffocate even in a tent, as they fill the upper cavity from their lightness. The future stages of the burning are harmless, and the carbonic acid produced falls to the ground, and flows away, so that there is no danger in then sleeping with the fire alight in the tent. The troops were acquainted with these two stages of burning charcoal, for they always placed the stove at first outside their tents, till it had "burned the fire out of it", as they termed it. They then afterwards took it inside, and closed their tents without fear of danger. In fixed fire-places or stoves in rooms where charcoal is used, it is suggested that the windows and door should be kept open, till the carbonic oxide has burned off, which may be generally ascertained by the peculiar odour and heat which it gives off ceasing to be evident.

March 11th, 1871. I am, etc., W. T. BLACK, Staff-Surgeon.

MARRIAGE OF CONSUMPTIVES.

SIR,—Allow me to add one more objection to the marriage of consumptives. There is some evidence that consumption is contagious—contagious, perhaps, to a low degree, requiring true contact, and that often repeated. It is no new idea that sleeping with a person has some peculiar effect on the body. Guy's men have often heard Dr. Wilks ask if some poor, pinched, aged-looking child slept with its grandmother. I find that in the north in many parts there is the same idea, and that it is considered wrong to allow old and young to sleep together. Dr. Parkes allows that, since pleuro-pneumonia of cattle is contagious, phthisis may be so. I think that this would be the very strongest argument with the patients themselves. Few would willingly run the risk of dragging down a loved one with them to an early grave.

I have written the above, having at present under my care several cases that seem to have such a cause.

I am, etc., GEO. H. SAVAGE, M.D. Lond.

Alston, Cumberland, March 1871.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

THE Kilkenny Board of Guardians have raised the salaries of the medical officers of the workhouse from £50 to £75. A motion proposing an increase to £100 was proposed; but was negatived by a large majority. We are glad to see the claims of the medical officers so far recognised; and hope that the salaries of the dispensary medical officers of this union will soon be increased, as they ought to be.

THE CENSUS OF 1871.

WE have before us the census-papers just issued for Ireland for the year 1871, with instructions for filling the tables; and we trust that the Poor-law medical officers, as we think that they come perhaps as much into contact with the people of the country districts, at any rate, as the clergy, will impress upon them the necessity of filling up these tables as accurately as possible. Many of the valuable results obtained by the action of the Medical Charities Act were directly proved by the census

of 1861, when the Act had been but ten years in force. We may now expect to find that still greater benefits have been derived from it; and, with the assistance of the Poor-law medical officers, we have no doubt that we shall not be disappointed.

Some very important changes have taken place with regard to Irish legislation in medical matters since the last census: for instance, the Compulsory Vaccination Act came into force on January 1st, 1864, and the registration of births and deaths at the same date; and since that time we have been able, by the consolidation of registration and vaccination in the dispensary medical officers, to obtain a good approximation of the relative number of children born and vaccinated each year. In the year ending September 30th, 1870, 149,377 births were registered; and 125,672 children were vaccinated by the Poor-law medical officers alone—leaving but 23,705 children unaccounted for, many of whom of course died, and others were vaccinated by private practitioners. While on this subject, we might say that a table might with advantage have been added in the returns as to the number of those vaccinated and not vaccinated in each family.

With regard to the registration of births and deaths, it is not perfect in Ireland, nor is it in England; nor will it be till the registration of still-born children is introduced. The omission of this important factor will destroy all calculations as to the birth-rate of every country. With regard to the registration of deaths, but for the fact that it is in the hands of the dispensary medical officers of Ireland, under whose treatment almost all of that class who are not likely to comply with the law come, it would not be very reliable; but it is not by any means as bad as it has been stated to be; and a little energy on the part of the heads of the department would make it much more accurate than it is at present, more especially in cities, where now it is most deficient. In Dublin there are two cemeteries, in which ninety-nine out of every hundred persons who die there are buried. Why should not some returns be made weekly or monthly, tabulated, and sent to the various districts to which they belong, in order that they might be registered? This is absolutely necessary in Ireland, under the present law; for there is no certificate of registration required for burial. The cemetery companies are unwilling to give the required information to individuals, but could hardly object to an application from an officer such as the Registrar-General. Besides, the remuneration for both vaccination and registration is much less in Ireland than it is in England. We have already drawn attention to the fact that the last Annual Report of the Registrar-General for Ireland is for 1867. We must bear in mind that it is only seven years old there. In England, registration has been nearly forty years in force, and the last Report is for 1868. If registration is of importance—if, in fact, it is worth paying for (which few will, we think, dispute)—it should be as accurate as possible, and as prompt as may be. The Poor-law Commissioners lay their Annual Report before Parliament each year before March 31st. Why cannot the Registrar-General do likewise? According to the present rate of progress of business, we shall not know the results of the present epidemic of small-pox till the year 1876, when perhaps it will be too late to make preparations for the next.

VACCINATION.

SIR,—I perceive that small-pox is very prevalent in France, and that, at a late meeting of the Medical Society of London, the President read a letter which he had received from the chief surgeon of the army of defence before Charenton, requesting a supply of vaccine lymph. In the usual red-tape method of "how not to do the thing", the letter was forwarded to Lord Granville, who referred it to Colonel Loyd-Lindsay. If the lymph be still wanted, and if you will mention it to our Secretary, Dr. Maunsell, in the columns of the JOURNAL, you will find an immediate response from our members. I hardly think that London is just the place to obtain it at present. I am, etc., A POOR-LAW MEDICAL OFFICER.

VACANCIES.

CAHERCIVEN UNION, co. Kerry—Medical Officer for the Emlagh Dispensary District.
CALLAN UNION, co. Kilkenny—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Kilmoganny Dispensary District.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Wednesday, March 22nd.

THE ADULTERATION OF FOOD BILL was read a second time. The discussion will be taken in Committee.

THE WORKSHOP REGULATION ACT AMENDMENT BILL was recommended, and passed through Committee.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, March 16th, 1871.

Hill, Charles Hamor, Teddington
Robey, Peter John, Newcastle-under-Lyne
Stamford, William, Swindon, Wilts

The following gentleman also on the same day passed his first professional examination.

Chilcot, James, University College

MEDICAL VACANCIES.

THE following vacancies are announced:—

ABERDEEN ROYAL INFIRMARY—Consulting Physician.
BIRMINGHAM GENERAL DISPENSARY—Resident Physician & Secretary.
CLIFTON DISPENSARY—Resident Medical Officer for the Redland Branch.
EGLINTON IRON COMPANY, Muirkirk, Ayrshire—Surgeon.
LINCOLN COUNTY HOSPITAL—House-Surgeon and Apothecary.
LINCOLN GENERAL DISPENSARY—House-Surgeon.
LIVERPOOL DISPENSARIES—Two Assistant Resident House-Surgeons.
LIVERPOOL LADIES' CHARITY AND LYING-IN HOSPITAL—House-Surgeon.
MIDDLESEX HOSPITAL MEDICAL COLLEGE—Lecturer on Physiology.
NEWCASTLE-UPON-TYNE HOSPITAL FOR DISEASES OF CHILDREN—Physician.
ORMSKIRK UNION, Lancashire—Medical Officer for District No. 4.
QUEEN'S COLLEGE, Birmingham—Medical Tutor.
ROCHDALE INFIRMARY AND DISPENSARY—Resident Medical Officer.
ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields—Curator.
ROYAL SURREY COUNTY HOSPITAL, Guildford—Assistant Honorary Medical Officer.
ROYAL UNITED HOSPITAL, Bath—Honorary Physician.
SCARBOROUGH DISPENSARY—House-Surgeon and Secretary.
SWANSEA HOSPITAL—Resident Medical Officer.
UNION SICK PROVIDENT SOCIETY, Birmingham—Three additional Surgeons.
VICTORIA HOSPITAL for SICK CHILDREN, Chelsea—Assistant-Physician.
WEST LONDON HOSPITAL, Hammersmith—Junior Surgeon.
WESTMINSTER HOSPITAL—Resident Obstetric Assistant.
WEST NORFOLK and LYNN HOSPITAL—House-Surgeon and Secretary.

[For Poor-law Vacancies see Poor-law Department.]

MEDICAL APPOINTMENT.

Names marked with an asterisk are those of Members of the Association.

*DOBSON, Nelson C., Esq., appointed Surgeon to the Children's Hospital at Bristol, vice T. G. Baretti, Esq., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

GOURLAY.—At Weston-super-Mare, on March 15th, the wife of *Frederick Gourlay, M.D., of a son.

JESSETT.—On March 12th, at Erith, Kent, the wife of *Frederic B. Jessett, Esq., Surgeon, of a daughter.

MARRIAGES.

COOKE, Thomas, M.D., Paris, to Countess Aglaé Hélène Edmé de Hamel de MANIN, at the French Protestant Church of Edward the Sixth, St. Martin's-le-Grand, London, by the Rev. Theophilus Marzials, B.D., on March 22nd.

*HANDCOCK, George, Esq., Surgeon, of Leeds, to Elizabeth, only daughter of Thomas OLIVER, Esq., of Haigh House, Rothwell, near Leeds, at Rothwell, on March 16th.

SHAW, Henry Sissmore, Esq., Surgeon, of Louth, Lincolnshire, to Emily Catherine Septima, youngest daughter of John GALE, Esq., Cheltenham, on March 18th.

DEATHS.

*GOULSTONE, J. G., M.D., at Liverpool, on March 12th.

HAINS, Frederick A., M.D., Assistant-Surgeon of H.M. ship *Excellent*, at Haslar Hospital, aged 29, on March 4th.

MACLEAN, Archibald, M.D., at Muirkirk, Ayrshire, aged 32, on March 12th.

*SEBOTTOM, Edward, Esq., Surgeon, at Manor House, Mottram-in-Longendale, aged 42, on March 1st.

WILLSON, John, Esq., Surgeon, at Framlingham, aged 72, on March 9th.

GUY'S HOSPITAL.—The students of Guy's Hospital will give their annual concert in aid of the Samaritan Fund on Wednesday and Thursday, March 27th and 28th. The programme is a good one.

LEICESTER INFIRMARY AND FEVER-HOUSE.—The rules are about to be revised; and among other proposed alterations is the following: "That the consulting and honorary medical officers and the chaplain shall be governors *ex officio*."

We are glad to learn that Surgeon-major Atchison's plans for "small-pox encampments" have been well received by municipal bodies, and that the principle is being carried into effect in many of the towns of England. A somewhat similar plan has been proposed for Liverpool, by a surgeon of that town.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic Hospital, 2 P.M.

SATURDAY St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Dr. Andrew Clark will narrate some cases of Perityphlitis, and also exhibit a case of Peribronchial Fibrosis; Dr. Simms, "On a case of Epilepsy during the passage of a Pin through the Intestines"; Mr. J. D. Hill, "On a case of Excision of the Elbow-joint, showing the amount of Movement attainable after Operation."

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Deputy Inspector-General Longmore, "On the Classification and Tabulation of Injuries and Surgical Operations in time of War."

WEDNESDAY.—Social Science Association (Adam Street, Adelphi), 8 P.M. Mr. W. H. Michael, "On the Report of the Royal Commission on the Sanitary Laws."

THURSDAY.—Royal Society.—Chemical Society (Anniversary).

EXPECTED OPERATIONS AT THE HOSPITALS.

KING'S COLLEGE HOSPITAL, Saturday, March 25th, 2 P.M. Operations for Necrosis of Radius, Hare-lip. Small Tumour on Back, Stricture of Urethra, and Perineal Fistula, by Sir W. Fergusson.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with *halfpenny* stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

MR. G. P. BLACKETT (Whickham) is thanked for bringing the subject under our notice. The attention of the Parliamentary Bills Committee of the Metropolitan Counties Branch shall be directed to the subject with a view to the defence of professional interests.

DISINFECTANTS.

SIR,—Will you allow me a short space to reply to Dr. Sansom's strictures on my paper on Disinfectants, published in a recent number of the JOURNAL? From my great anxiety to condense my observations into the smallest possible compass, I fear I may have been guilty of some obscurity of language; but from the nature of Dr. Sansom's remarks, I think he has read my paper hastily and imperfectly. The experiments of Dr. C. Calvert, to which I referred, were published in the BRITISH MEDICAL JOURNAL; and though it is probable that they appeared in the *Chemical News* also, I did not refer to that paper, nor have I seen it. I pronounced the experiments worthless, because they compared volatile with non-volatile substances under circumstances which did not admit of comparison, the substances, moreover, having very different chemical actions. I gave my reasons in my paper, and I need not repeat them here. Dr. Sansom does not prove that I was mistaken by simply telling us that the experiments were "supplementary to, and confirmatory of," his "Evidence concerning the Germ-Theory of Fermentation, etc." If Dr. Sansom have no better evidence in support of his theory, the sooner he abandons it the better; for neither he nor Dr. Calvert will be able to persuade reasonable men that a fair way to test the antiseptic powers of chloride of zinc is to suspend a piece of meat above it. The most credulous of homeopaths could not believe them.

In confirmation of my statement that carbolic acid coagulates albumen, I refer Dr. Sansom to Neubauer and Vogel (*On the Urine*, New Sydenham Society), Fownes's *Chemistry*, and Mr. Crookes's Report, and his own paper on Sulphocarbolates in Beale's *Archives*, when he says: "It (carbolic acid) is exceedingly facile in its combinations with albumen, alcohol, etc." I have only just seen this remark, but it is in exact accordance with my own views, for I said "the compound of carbolic acid and albumen was slow to enter into decomposition." My own experiments, made some time ago, with the ordinary hospital solution, which contains from 2 to 2.5 per cent. of carbolic acid (and this I consider a very dilute solution, much too weak for surgical purposes), on blood, the serum of blood, and the secretions obtained from ovarian cysts and hydroceles—and these are the albuminous fluids with which

we have to deal in surgical practice—all of these it coagulated. Probably Dr. Sansom experimented on dilute solutions of albumen, and so obtained different results. In referring to the case of poisoning by carbolic acid, I simply called attention to the coagulating powers of the acid, and did not wish to imply that it produced death in that way, as Dr. Sansom seems to infer. Indeed, the whole tenor of my argument was in the opposite direction, for I quoted Trautmann to show that the vapour of carbolic acid did not destroy organic cells in the air; and I urged that it would probably be equally impotent to destroy morbid poisons, and therefore useless as a disinfectant.

Dr. Sansom has misunderstood my attempt to explain the *modus operandi* of chloride of zinc, chloralum, and carbolic acid as antiseptics. My proposition was, that these substances produce some chemical or mechanical change in the *substance to be preserved*, which enables it to resist the attacks of septic agents; whereas disinfectants like sulphurous acid, chlorine, etc., destroy the septic agents. I contend that we have no evidence to show that carbolic acid destroys septic agents, while Dr. Sansom says "nothing known is so potent to destroy them", but does not give us one particle of proof, excepting Mr. Crookes's opinion. Dr. Sansom, believing that "infection and putrefaction are alike due to the operation of vitalised molecules", prefers to "poison" his molecules with carbolic acid; while I, believing in organic poisons of an albuminous nature (like vaccine lymph), prefer to destroy them by heat or oxidising agents.

With regard to Mr. Crookes's experiments, I only give my own opinion of them, and some of a similar kind which came under my own observation.

In conclusion, let me add that I think that the confusion which surrounds this subject is due to the germ-theories which have sprung up around it; and it was to try to divest it of these that my paper was written. I think that the ordinary laws of chemical affinity will explain all the phenomena of putrefaction without the intervention of germs. Even granting that Dr. Sansom's "vitalised molecules" are *not* "such things as dreams are made of", he will have to prove that they are more potent to produce decomposition than air and water, and that they are not themselves accidental accompaniments, or the mere products of decomposition. We can isolate three of the most constant of the morbid poisons, viz., small-pox, cow-pox, and syphilis, and it is much more philosophical to argue from what we know of them, than invent theories which ignore that knowledge altogether. It is easier to explain the spread of small-pox by conceiving the lymph to become dry and reduced to "dust"—mere fragments of albuminous substance—than by any theory of germs however plausible. Whatever explanation we adopt, I think that the oxidising and deoxidising disinfectants will be found the most useful, for I fancy the internal economy of one of Dr. Sansom's vitalised molecules would be as seriously deranged by the abstraction of a single atom of oxygen, as by an overdose of carbolic acid.

2, Bolton Row, March 20th, 1871.

I am, etc.,

CHARLES ROBERTS.

SIR,—Dr. Sansom seems to me to be in want of more light in connection with this subject. Might he not with advantage direct his attention to the action for disinfection of ventilation and pure air? Although carbolic acid is not a constituent of the atmosphere, he would, perhaps, after all find the oxygen contained therein to be the best substance wherewith "to poison the poor germs."

I am, etc.,

JOHN MUTER, M.D.

South London School of Chemistry and Pharmacy, March 20th, 1871.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, March 4th; The New York Medical Record, March 9th; The Boston Medical and Surgical Journal, March 9th; The Madras Mail, Jan. 9th; The Shield, March 18th; The Philadelphia Medical Times, Feb. 29th; The Philadelphia Medical Independent, March 4th; The School Board Chronicle, March 18th; The Newcastle Daily Chronicle, March 18th; The Bath Express and County Herald, March 11th; The Croydon Advertiser, March 18th; The Newcastle Daily Journal; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. Furneaux Jordan, Birmingham; Mr. Stephen Mackenzie, London; Dr. J. Bell, Edinburgh; Mr. Grant, Maidstone; Dr. E. T. Wilson, Cheltenham; The Secretary of the Social Science Association; Dr. Archibald White, Torquay; Dr. Hardie, Manchester; Dr. Sibthorpe, Dublin; The Rev. C. Handcock, Milnrow, Rochdale; Dr. Sheen, Cardiff; Mr. W. J. Harris, Worthing; The Secretary of the Harveian Society; Dr. B. W. Foster, Birmingham; Mr. Charles Roberts, London; Dr. F. Gourlay, Weston-super-Mare; Mr. R. Freeman, London; A Public Vaccinator; Arbitration: The Secretary of the Royal South London Ophthalmic Hospital; Dr. Merryon, London; Mr. Shurlock, Chertsey; The Secretary of the Clinical Society; Mr. F. J. Wilson, London; Mr. J. Langston, Strood; Mr. William Druce, Oxford; Dr. Simpson, Manchester; Dr. Muter, London; Mr. J. Bately, Yarmouth; Dr. Sansom, London; Mr. B. Blower, Liverpool; The Secretary of the Royal Medical and Chirurgical Society; Mr. G. Southam, Manchester; Mr. A. Haviland, London; The Right Hon. T. E. Headlam, M.P.; Surgeon-Major Atchison, London; Dr. Henry Thompson, London; etc.

LETTERS, ETC. (with enclosures), from:—

Mr. Erasmus Wilson, London; Dr. S. J. Gee, London; Dr. Buchanan, Glasgow; Dr. Tilbury Fox, London; Dr. C. F. Moore, Dublin; Dr. Clarke, Leicester; Our Vienna Correspondent; Dr. Bradbury, Cambridge; Mr. J. Cooper Forster, London; Mr. James Dixon, London; Dr. Falconer, Bath; Mr. T. Watkin Williams, Birmingham; Dr. A. Inglis, Aberdeen; M.D.; Dr. R. A. Warwick, Richmond; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Our Dublin Correspondent; Dr. Dobell, London; Dr. G. H. B. Macleod, Glasgow; Mr. H. Hailey, Newport Pagnell; Dr. G. H. Savage, Alston Moor, Cumberland; Dr. Cotton, London; Our Liverpool Correspondent; Mr. J. P. Purvis, Greenwich; Messrs. Longmans & Co., London; The Secretary of the Obstetrical Society; Mr. W. G. Cresswell, Clun; Mr. R. W. O. Withers, Shrewsbury; Mr. T. H. Bartleet, Birmingham; Mr. M. A. Wood, Ledbury; Dr. Alfred Meadows, London; Dr. Waters, Chester; Dr. William Ogle, Derby; Dr. Wallace, Liverpool; Mr. William Adams, London; The Secretary of the Quekett Microscopical Club; etc.

GULSTONIAN LECTURES ON THE HEAT OF THE BODY.

DELIVERED AT

The Royal College of Physicians, London,

MARCH 1871.

By SAMUEL J. GEE, M.D., F.R.C.P.,

Assistant-Physician to St. Bartholomew's Hospital and to the Hospital for Sick Children.

LECTURE II.—*Concluded.*

WE will now proceed to the opposite condition—of the body being exposed to a temperature lower than itself. This is, indeed, the natural state of things, to which all that we have said before concerning the generation and regulation of heat has direct reference. In this place, however, we will consider the effect of great abstraction of heat from the surface of the body.

Rabbits can be cooled down to 48 deg. Fahr. before they die, if, at the same time, artificial respiration be kept up; at this low temperature the animals still feel and move. Rabbits cooled down to 64 deg. cannot recover upon being brought into a warm atmosphere, unless artificial respiration be kept up; under the two conditions of external warmth and artificial respiration, the creatures recover even when their temperature has fallen to 64 deg. Rabbits, not cooled below 77 deg., recover by external warmth alone, without artificial respiration. (Walther.)

The effect of similar reduction of temperature in the human being is quite unknown; death by cold is so rare an occurrence compared with death by heat. But what if the external cold be less extreme or less prolonged in operation? Generally speaking, temporary cooling of the surface of the body causes the temperature of the blood to rise. A thermometer in the rectum of a drenched puppy continues to rise so long as evaporation goes on from the surface of the body. When the quadruped is brought, so far as his skin is concerned, into a state like that of man, by being shorn, and then is wrapped in a wet linen cloth which admits of evaporation, the temperature of the rectum falls twenty-seven degrees in the course of an hour. Now, in the human subject, moderate external cold produces both these effects; according to circumstances, the temperature of the body either rises or falls.

Senator took the temperature of the arm-pit of a man whilst in bed in the morning. Afterwards, the man rose, and remained naked in the bedroom. It was found that the body-heat was depressed sooner or later when the temperature of the atmosphere was allowed to fall below 80 deg. Reversely, the temperature of the body rose when the heat of the room was greater than that of the blood; thereby proving what we asserted before, that it is only within limits of 18 deg. or so, say from 80 to 98.5 deg., that the body can maintain its constant temperature for any length of time without voluntary external aid.

Next let us inquire—What is the effect upon the naked body of an external temperature below 80 deg.? Senator, by his experiments, found that in a room below 80 deg. the temperature of the axilla always rises at first, and rises so much the more and so much the more rapidly, the lower the temperature of the room, within certain limits. The greatest elevation observed amounted to nearly one degree, after twenty minutes' exposure in a room of 60 deg. To this primary elevation of temperature succeeds a gradual fall, which is not broken by any fresh elevation so long as the experiment can be carried on. At first, however, this fall consists simply in a return to the temperature noted at the beginning of the experiment. Thus in a room at 57 deg., the body-heat at first was 97.9 deg., in thirty-five minutes it rose to 98.5 deg., in twenty-five minutes more it fell to what it was at first (97.9 deg.), and it continued to fall, reaching 97.5 deg. in fifteen minutes longer, a temperature which was accompanied by violent shivering and blueness of the skin, such as rendered it necessary to stop the experiment. And yet the body-heat was at 97.5 in the axilla.

A cold bath produces results which are precisely similar, except that cold water abstracts heat much more rapidly than cold air. For example: a man in a bath of 77 deg. will, as a rule, rise a little in temperature during the first quarter of an hour; but, after this temporary rise, a fall sets in which is unbroken so long as the bath is continued. That the temperature rises in a cold bath was noted by Pickel in a book published so long ago as 1788. But, during the last ten years, the influ-

ence of cold baths has been very carefully studied, especially by Liebermeister of Basel.

The fact of the primary rise of temperature is admitted by all; but how the fact is to be explained has led to great dispute. Two parties have been formed. Liebermeister and his party hold that the rise in temperature indicates an increased generation of heat in the body, for the purpose of counteracting the increased loss of heat, and by virtue of the power which the body possesses of spontaneously regulating its own temperature. On the other hand, Jürgensen and Senator deny that the body has any power of generating an increased amount of heat sufficient to regulate the temperature of the body under the condition of active abstraction of heat from the surface. The temperature of the internal parts rises under the influence of a cold bath, because, say they, the contraction of the blood-vessels of the skin prevents the entry of blood into them; and the result is that, between the internal parts and the cold water, there is a layer of ill-conducting tissue, which is constantly waxing thicker and thicker; so that, in fact, the body loses, not more, but less heat than natural. Meantime, the ordinary amount of heat is being produced; *ergo*, the temperature of the blood and internal organs rises.

After the bath, the temperature continues to fall. How is this to be explained? Jürgensen supposes that the blood, as it re-enters the cold skin, thereby becomes itself cooled to such a degree as to depress the temperature of the whole mass of blood. But Liebermeister, regarding the cold skin as a stimulus to increased generation of heat, conceives that, when the warm blood enters the skin again, the production of heat ceases to be unnaturally great, and falls to the usual standard.

Liebermeister endeavoured to support his opinion—that the elevated temperature indicates increased generation of heat—by some rather rough calorimetric observations. But, quite recently, Gildemeister has published important evidence in favour of Liebermeister's view. That is to say, the amount of carbonic acid expired is found to be greatly increased at the time when the temperature rises. And this increased exhalation of carbonic acid must correspond to increased chemical combination. A man, dressed in the usual way, expired 15.3 *grammes* of carbonic acid in half an hour; during the next half hour, he was stripped and washed with ice-cold water, the carbonic acid was nearly doubled in amount, namely 27.8 *grammes*; dressed again for half an hour, the quantity fell to its former amount, 15.1 *grammes*; cooling the skin as before raised it to 24.9 *grammes*; and the man, dressed again for another half hour, expired the usual quantity of carbonic acid, 15.6 *grammes*. Gildemeister also found that the increase in the expired carbonic acid was directly proportionate to the coldness of the bath. A man, who exhaled 13.2 *grammes* of carbonic acid per half hour under ordinary circumstances, in a bath of 91 deg. Fahr. exhaled 14.8 *grammes*; in a bath of 78 deg. Fahr., exhaled 22.5 *grammes*; at 68 deg. Fahr., 38.9 *grammes*; and at 65 deg. Fahr., 39 *grammes*, or exactly three times the normal quantity.

I think that there can be no doubt that the body does possess the power of spontaneously adjusting the supply of heat to the demand, within certain limits. And the conditions of an increased formation of heat are present in the case supposed. The viscera and the muscles contain more blood than usual, and these are the great calorific organs; moreover, the respiration is proportionately frequent and deep. But no doubt there is truth in what Liebermeister's opponents say concerning the protective influence of the cooled skin. Indeed, as Senator observes, the skin is a sort of reservoir for the blood, whereby the internal parts escape material change of temperature. For the body's powers of liberating heat are very limited; if the degree or the duration of the withdrawal of heat be too great, the body is not able to counteract the loss; the result being that the internal parts, also, are cooled. The limit seems to differ in different individuals, and also in the same individual at different times; an abstraction of heat which at one time produces lowering of the temperature of the blood, at another time raises its temperature.

Jürgensen found that cold baths repeated daily, day after day, produced a very curious effect upon the temperature of the body. The time during which the temperature was raised increased with each bath, and, more than this, the mean daily temperature also rose. This change in the heat-economy of the body was so prolonged as to influence the action of the next bath; and thus the cooling power of the baths became progressively less and less, until it was reduced to none at all. For example: a man, after a number of daily baths at about 50 deg., took one of 48 deg. for twenty-five minutes; during this last bath, his temperature remained at 99.6 deg. Jürgensen admits that this points to increased production of heat. Dogs exposed to cold are able to replace a loss of 9 or 10 deg., affecting the whole body, in an hour or less.

I need not stay to remark upon the important bearing which these

facts have upon the therapeutics of what is called the water-cure. Local abstraction of heat, by hip-baths or otherwise, produces the same effect as full-length baths.

The influence of baths, hot or cold, upon the temperature of the body at large, depends (as we have seen) to a great extent upon the effect which they have upon the vascularity of the skin. The cooling power of cold baths is much diminished by the contraction of the superficial vessels of the body, whereby they are emptied of their blood. On the other hand, the abundant evaporation from the surface, which goes on in a hot-air bath, is insufficient to counteract the heating effect of the bath, by reason of the hyperæmic state of skin which greatly favours absorption of the external heat. Now let us put the opposite condition: the skin, unnaturally full of blood, exposed to a low temperature. These conditions are fulfilled when an animal, whose skin has been shaven and varnished, is left, without any covering, in the ordinary temperature of the air. It has long been known that, under these circumstances, the animal quickly died; and, naturally enough, those who first noted the fact supposed that some noxious elements of the perspiration were retained in the body. If it were a case of simple suppression of sweat, the temperature of the body should rise. Far from this being the case, the heat is so rapidly lost, that the death of the animal is undoubtedly due to the depression of temperature. Even supposing that the amount of blood in the skin remained the same before and after the varnishing, even then the varnishing would increase the loss of heat two-and-a-half-fold; in addition to this, the varnished skin becomes hyperæmic, just as if its vaso-motor nerves were paralysed. And, by way of an *experimentum crucis*, Krieger has succeeded in keeping varnished rabbits alive and active for five days, by surrounding them with an atmosphere of from 90 to 95 deg.

Bearing these facts in mind, it becomes an interesting question whether the depressed temperature which is observed soon after an extensive burn, may not be partly or chiefly due to the hyperæmia of the skin. In one case of extensive burn, Billroth found the temperature of the arm-pit to be only 91.5 deg. Fahr. soon after the accident; the patient was put into a warm bath of from 95 to 104 deg.; in two hours the temperature of the axilla rose to 99 deg., then gradually sank, but rose again shortly before death to 102 deg.

We have now discussed two divisions of our subject. First, we examined the means by which the body gains and loses heat. In the second place, we considered the result of these contrary processes in the healthy state—that is to say, the natural temperature of the body. Let us pass on to investigate the deviations from the natural standard of body-heat—temperatures which are unnatural.

By the heat of the body we mean the heat of the blood. And we judge of the heat of the blood by the heat of the axilla or of the rectum. We will assume it as being generally true, that a temperature above 99.5 deg. in the axilla, or above 101 deg. in the rectum, is doubtless unnaturally high; and that a temperature below 96 deg. in the axilla, or 98 deg. in the rectum, is unnaturally low. Thus we have two great types of unnatural temperatures. However, I shall not specially ask your attention except to the case of the general heat of the body being unnaturally high—the *πυρ*, *πυρετος*, *πυρεξις* of Hippocrates.

And here we are met, at the very outset, by an opinion that, in what we call pyrexia, the temperature of the blood is not really raised; an opinion which has been rendered possible by observations such as made by John Hunter, who noticed that the difference between pyretic and apyretic temperatures became less and less marked the more deeply seated the parts of the body examined. Bernard's famous experiment of dividing the sympathetic nerve (causing thereby great elevation of temperature in the skin of the parts concerned, as compared with the corresponding parts on the opposite side of the body) gave a new impulse to this hypothesis; especially when taken along with an assertion made by the same physiologist, that the temperature of the liver is sometimes as high as 106 deg. in health. Putting these two statements together, Marey has been able to maintain that pyrexia is due merely to a loss of vascular tone; whence dilatation of the vessels, and diminution of the resistance which the small arteries afford to the blood-stream. Hence diminished pressure in the arterial system, and increased rapidity of the circulation. Hence, lastly, equalisation of internal and superficial temperatures. So that, to quote Marey's words, "The elevation of temperature under the influence of fever consists much more in a levelling up of the temperature in different parts of the economy than in an actual heating of the body." Doubtless there is in this view a certain amount of truth which we must not reject; but the hypothesis, as Marey puts it, is quite untenable. First, there is good reason to believe that Bernard rated the possible temperature of the liver in health too high, and that, in fact, it never exceeds 104 deg.: so that all febrile temperatures above 104 deg. are inexplicable upon Marey's hypothesis.

Moreover, Jacobson has observed that the temperature of the liver rises with that of the rest of the body in dogs rendered artificially pyretic. And although there is no doubt about the dilatation of the small arteries in certain stages of fever-heat, there is no proof whatever that the diminished arterial pressure and increased rapidity of circulation are the causes, and not, as heretofore supposed, the effects of pyrexia.

The temperature of the blood, then, is really raised. This elevation of temperature obviously must be due, either to an increased production of heat, or to a diminished loss of heat, or to a combination of these causes. Let us consider each of these possible conditions separately.

When we discussed the physiology of animal heat, we saw that it had been explained by three theories: the theory of innate heat, the mechanical theory, and the chemical theory. Now, a theory competent to explain the existence of animal heat in general, might be reasonably expected to be able to explain the existence of animal heat in particular. Accordingly, we find that the pathology of animal heat has always been consonant with the current physiology of the day. The earliest, or innate heat doctrine, hardly deserves the name of theory. To say that pyrexia is an increase of the *calidum innatum* may be a definition, but is not an explanation. When the mechanical theory took the place of the defunct *calidum innatum*, the theory of fever became mechanical: and as with the physiology of the mechanical theory, so with its pathology; it will be most conveniently deferred until we have examined the third and latest theory of pyrexia—the chemical.

The chemical theory of animal heat was, we know, established by Lavoisier in the last quarter of the last century. But the doctrine of unnatural animal heat was influenced in no wise by Lavoisier's great discovery. This is a very remarkable fact. If the natural heat of the body be due to a certain amount of chemical combination, it does not seem to be a very great stride to the corollary, that increased heat is due to increased combination. And yet this step was not taken for half a century; a fact which is probably to be explained by the absorbing interest which was taken in the study of morbid anatomy. Morgagni had preceded Lavoisier, but the Baillies and Laennec who appeared after him drew all men's minds to the study of pathological structure; pathological physiology is a growth of later date. The natural result of this state of things was the appearance of such men as Broussais and Clendinning, who talked of physiological medicine, but endeavoured to explain fever by mere anatomy. Fever became a symptom of a local lesion. Volumes upon volumes appeared concerning the nature of inflammation; nobody seemed to remember that there was such a state as pyrexia worthy of attention. The great methods of physical examination which were discovered at the same time referred wholly to local anatomical changes (auscultation and percussion); whereas the thermometer was passed by.

I will not further develop this historical sketch of events which follow one another with a fatal order equal to that of the layers of a geological section. Let us come at once to the time when what Lavoisier had done for animal heat in general another great chemist did for preternatural animal heat in particular. I allude to Liebig. He it was who, thirty years ago, first laid down the proposition that when (in consequence of morbid metamorphosis of the living parts of the body), a greater amount of force is set free than is necessary to the normal organic movements, straightway there ensues increase of some or of all of the organic functions, and, as one result thereof, elevated temperature. Certainly this is simply an application of the old aphorism, "*Quæ faciunt, in homine sano, actiones sanas, eadem, in ægroto, morbosas.*" Those chemical processes which beget a normal temperature, beget, also, an abnormal temperature.

But yet we may not leap to the conclusion that augmented production of heat is the necessary antecedent of pyrexia; might it not be due to retention of heat in consequence of diminished loss? In fact, the latter alternative has been, and still is, upheld by some pathologists; so that you will not deem it needless to ask what are the proofs that the amount of heat begotten by the pyretic body really is increased. And proof will be forthcoming, if we find that the temperature of the body is greater than natural whilst the loss is not less. What, then, is the amount of heat given off by the pyretic body? This is obviously a question of calorimetry. But calorimetry is always difficult, and calorimetry of a febrile person must be very difficult. Nevertheless, quite lately Leyden has overcome these difficulties. He encloses the leg alone in a calorimeter. And it is a certain kind of witness to the trustworthiness of Leyden's observations, that the total amount of heat given off by the surface of the healthy body, calculated from his data, agrees closely with the estimate of Helmholtz. Leyden's experiments were made chiefly upon a patient with relapsing fever. He found that the heat given up to the calorimeter, during the period of pyrexia, was never below the standard of health. But the skin did not lose heat in proportion to its temperature alone; indeed, as we might have expected,

the skin lost heat rather in proportion to the evaporation of sweat from the surface. In the cold stage of fever, the amount of heat lost is not diminished, but is about the same as the standard of health. The loss, I say, is not diminished; the temperature is rising greatly; therefore, the production of heat is greatly increased. Next, in the hot stage, the heat lost from the skin is about double the normal. Next, in the sweating stage, the heat lost is about thrice the normal amount; it was so even in a case in which the temperature fell nearly two degrees in an hour. Now, a sweating skin would certainly not radiate more heat than a hot dry skin of higher temperature; so that it seems to follow as a necessary consequence that the loss of heat is chiefly dependent upon the evaporation of sweat. It is not that, during the hot stage, there is a diminished loss of heat from the surface (as has been supposed by some), for the loss is actually doubled; but, although doubled, it does not suffice to carry off the excess of heat generated; there is absolute increase of the cutaneous cooling, but relative diminution of it; the balancing powers are at fault. Lastly, after the crisis, the loss of heat falls to below the normal. These observations of Leyden's agree, in all important points, with the less exact experiments of Liebermeister and others, made upon fever-patients put into baths of cold water. Let us accept it, then, as proved, that the increased temperature of the pyretic body indicates increased production of heat, inasmuch as there certainly is no diminished loss of heat so long as the temperature of the body remains above the normal.

The production of heat is increased; and this fact, according to the chemical theory, involves increased combustion of the constituents of the body. Increased combustion would be attended by increase in the quantity of excreted products of combustion. Is this found to be the case by actual experiment? Let us ask this question with regard to the two most important excreta of the body, those which represent the consumed carbon and nitrogen—I mean carbonic acid and urea. And we will take the carbonic acid first, because it is a much more significant and trustworthy product of combustion than is the urea. The weight of carbonic acid given off from the body exceeds that of urea twenty times.

The quantitative estimation of the carbonic acid expired by fever-patients is not easy. The earlier experiments of Malcolm seemed to show that, in typhus-fever, the relative quantity of carbonic acid expired was diminished; that is to say, the expired air of fever-patients contained a smaller percentage of carbonic acid than the breath of healthy persons. Lehmann and others have made observations upon small animals, which seem to show an absolute diminution of carbonic acid expired during the febrile state. But these experiments are not very conclusive. For a valuable series of observations upon this point, we are again indebted to Professor Leyden, of Königsberg. Leyden's experiments were made chiefly upon cases of typhus fever, relapsing fever, and pneumonia. He found that Malcolm's statement was correct; there is a small diminution of the carbonic acid relatively to the total quantity of air expired; a proportion of about nine in the febrile, to ten in the non-febrile state. But then the respiration is very much increased in frequency during fever, so that the quantity of air expired is half or three-fourths greater than the normal. Putting these facts together, it appears that the absolute quantity of carbonic acid expired during the febrile state is considerably increased, bearing a ratio to the non-febrile state of about one-and-a-half to one. It will be understood that the febrile and non-febrile states were compared under circumstances which were otherwise the same—namely, a slender diet and rest in bed. Liebermeister has made experiments of a similar kind upon two cases of ague; the results obtained agree with those of Leyden. During the cold stage, the carbonic acid was increased in quantity by nearly 150 per cent.; in other words, it was nearly two-and-a-half times the normal amount. During the hot stage, the increase was much less, from 19 to 31 per cent. During the sweating stage, the increase was little or none. Now it is highly probable that, in all stages of fever, the quantity of carbonic acid expired affords the best measure of the whole tissue-metamorphoses which result in the liberation of heat. If this be so, we may draw the following conclusions: that in the cold stage of fevers the production of heat is greatly increased, whilst, as we have already seen, the loss remains stationary at the standard of health; that in the hot stage the production is increased (but to a less degree than in the cold stage), whilst the loss is increased also; and that in the sweating stage the production falls to the standard of health, whilst it is the loss which is greatly augmented.

Observations made upon the quantity of urea excreted by febrile patients are just as numerous as those concerning the carbonic acid are few. There is, indeed, one drawback to these urea estimations, which have all been made, so far as I know, by Liebig's volumetric process, the results whereof are not altogether trustworthy, but still they are probably sufficiently near to the truth to deserve our attention. In the short fevers, such as ague and pneumonia, all observers, from Vogel

down to those of the present day, agree that the quantity of excreted urea is increased during the pyretic state; the comparison being made upon the same person in the febrile and non-febrile states, under the same conditions as to food and rest in bed. Speaking generally, pyrexia increases the urea by one-half or three-fourths; pretty much the same as the carbonic acid. And the experiments of Bartels, Senator, and Unruh show that the urea and uric acid are increased *pari passu*, provided the respiration be not interfered with.

This question now arises: Are the nitrogenous excreta of the urine increased proportionately to the temperature of the body? To this it is easy to give a distinct negative. In fact, no relationship at all can be established between the two conditions, nor, I think, is it difficult to see why this should be so. For, granted that the urea is proportional to the activity of combustion, the temperature certainly is not so. In the case of ague, it seems to me that the quantity of water excreted has more to do with the amount of urea present in the urine at different stages of the fever than any other single circumstance. For instance; during the sweating stage, the urine is usually much diminished in quantity, and in that case the urea is diminished too; after the crisis, both water and urea are excreted in excess. But sometimes the kidneys sweat at the same time as the skin; the water of the urine is abundant, and so is the urea; nor does there follow any epicritical excess of urea in the urine. Put now the case that, during the hot stage and the crisis, there is a falling off in the quantity of urea, and again an increase after the crisis: how are these facts to be explained? Let us bear in mind that the amount of heat generated after the crisis is less than natural, and yet, I say, the urea may be increased. Is there a retention of the excreta during the hot and critical stages; and, if so, are these excreta retained in the form in which they are excreted or in a less oxidised form? Or is the epicritical excess due to the absorption and combustion of exudations such as are present in pneumonia, or such as Richard Volkmann and Steudener have found to accompany all fevers; namely, a great quantity of lymphoid corpuscles which are formed in the different tissues and organs, and which are reabsorbed during convalescence? At any rate, the body loses water with great rapidity during and shortly after the crisis—a fact testified by the loss of weight, and by the emaciation which becomes notable about that time.

In pyrexia, then, the quantity of urea excreted is increased—that is to say, the same increased combustion which liberates more heat than natural also produces more urea than natural. But increased combustion does not necessarily imply pyrexia. Let us now ask: Of the two conditions, elevation of temperature, or pyrexia, and increased oxidation of nitrogenous matters, as represented by the urea, which comes first? Now, the elevation of temperature during the cold stage of fever undoubtedly indicates increased generation of heat; this we have already seen. Well, then, in ague the rise of temperature is sometimes preceded by a great increase in the quantity of urea excreted—that is to say, the urea is augmented before the temperature. The same condition occurs, according to Naunyn, in the pyretic state, produced by injecting putrilage into the subcutaneous tissue of dogs. In this experiment the temperature does not rise until two hours after the operation; but, during these two hours of natural temperature, the urea is increased in quantity above the normal (the water being at the same time diminished), a fact which seems to show that increased consumption of the body-tissues precedes the elevation of temperature. If this be so, the body must be able to dispel the excess of heat formed before the regulating function is involved, before the cold stage begins. Hereafter we shall have to discuss the question reversed, whether elevation of temperature does not produce increased consumption of tissue.

But when we pass on to consider the quantity of urea excreted during long fevers, the problem becomes much more complicated; appetite and digestion are so greatly impaired; nor are we able to keep such patients on their fever-diet after the fever is over, wherefore we are unable to obtain our usual standard of comparison.

HYDRATE OF CHLORAL AS A CAUSE OF URTICARIA.

IN June of last year I had occasion to give a patient (a stout middle-aged woman) a hypnotic. I ordered the following draught; viz., hydrate of chloral, 25 grains; simple syrup, a sufficiency; water, 1½ ounce. After taking it, the patient became the subject of extensive urticaria. I inquired very particularly whether she had partaken of any of the articles of diet sometimes producing the eruption, as oatmeal, shell-fish, etc.; and was assured that she had not. I of course discontinued the chloral hydrate, at the same time being unwilling to give it the credit of producing the rash. Twenty-six days afterwards, I gave her a dose of ten grains, and in a short time the before mentioned effects were again produced. S. WINTER FISHER, M.D.

Clifton, March 1871.

LECTURES ON DERMATOLOGY.

DELIVERED AT

The Royal College of Surgeons of England.

BY ERASMUS WILSON, F.R.S.,

Professor of Dermatology in the College.

LECTURE VI.—*Concluded.*

IT is important to remember that eczema prevails at every period of life, from infancy to extreme old age, and, consequently, that the treatment will be very much influenced by the age and constitution of the patient. As a general expression, it may be stated that the eczematous affections take their origin in lowered vitality or debility, and that the aim of our treatment should be—to restore health. But the conditions of debility necessarily vary at different periods of existence. In infancy and childhood, the cause of debility will be defective nutrition or defective nutritive power; in the adult and at middle age, the cause will very probably be malassimilation from derangement of the digestive functions; while in old age and in certain adults of highly nervous temperament, the cause of eczema will be a malassimilation determined by irritability and waste.

Thus, with a patient before us suffering under eczema infantile, we must inquire carefully into the diet of the child: it has probably failed to obtain its natural food, and recourse has been had to bringing it up by hand. Then we must draw on our resources bearing upon the nutrition of infancy—the substitutes for mother's milk, the wheaten flour, the beef-tea, the cod-liver oil; in such a case the best nurse will prove to be the best physician. A similar principle of treatment carries us through the whole of the nutritive period of life from infancy until the full development of the body is perfected by growth. We may find many intercurrent sources of debility intruding upon the steadfast stream of our course; but our aim should always be to perfect, as far as we are able, by diet, by hygienic measures, and by medicines, the healthy nutrition and development of the organisation. We may be interrupted by the successive trials of vaccination, of teething, of infantile diseases, of scanty or deficient food, of growth; but we must be ready to appreciate every condition predisposing to exhaustion, and apply in good season and judiciously the appropriate remedy.

If the powers of constitution of our patient be equal to the proper digestion and proper assimilation of the improved diet, our purpose is accomplished, the cure is certain and rapid; but the nutritive power may be weak, in which case it will be necessary to find some means of giving it strength. Such a means we possess in arsenic combined with iron; and there is no medicine more harmless, more certain in its effect, and more successful, than arsenic. The dose for an infant of a month or six weeks old may be one minim of Fowler's solution, equal to the $\frac{1}{120}$ of a grain of arsenious acid—a dose far too minute to do harm, although capable of doing wonders in the way of good; and we may in the course of a few days increase the dose to a minim and a half or two minims. I have for many years prescribed arsenic in a combination, which I have found so safe, so efficacious, and so convenient, that I have been unwilling either to vary the remedy or the formula. The latter is as follows.

R Vini ferri ʒiiss; syrupi simplicis ʒiij; liquoris arsenicalis ʒj; aquæ anethi ʒij. Misce. One drachm, with meals, three times a day.

Let me recapitulate: firstly, we should cover every visible part of the eruption, whatever its state, and avoiding only the hairy scalp, with the benzoated zinc-ointment in combination with spirits of wine; secondly, we should examine carefully into the diet, and direct such a regimen as in our opinion is most likely to be nutritive; and thirdly, we should administer from one to two minims of Fowler's solution in the combination already mentioned, three times in the day, with the single condition that the medicine should be given on a full stomach, and stopped immediately if it chance to disagree. Two other points, but of secondary importance, follow upon this course of treatment. It is well to see that the bowels act regularly. With an unsuitable diet it is hardly probable that digestion will be complete; but nothing short of constipation need delay the commencement of the curative treatment.

The other point opens up a question as to the derivative influence of eczema: that it is derivative in infancy is more than improbable, and I should no more hesitate to arrest an ichorous discharge from the skin than I should a chronic diarrhoea from the intestinal canal. Nevertheless, it is always wise to be on our guard; and if any apparent incon-

venience arise from the sudden closure of the outlet through the skin, it might immediately be removed by the administration of one grain of calomel with one grain of sugar, dropped into the mouth or upon the tongue.

The usual issue of the treatment now mentioned is a speedy and effectual cure; and very rarely, indeed, have I met with a chronic prolongation of the disease, and even more rarely with a fatal termination of the case. Whenever the latter has occurred, it has resulted from bronchitis or convulsions. Bronchitis is intimately associated with eczema—in fact, is neither more nor less than an eczema of the bronchial mucous membrane, and of course has its dangers; whereas convulsions may seize on the delicate organisation of infancy, excited by a very trivial cause, such as mere indigestion or the cutting of a tooth, and cannot therefore be regarded as a direct consequence of eczema. On the contrary, it may be reasonably predicted that convulsions would be less likely to attack an eczematous child than one in apparent good health.

In eczema, as it occurs at the age of childhood, and thence upwards to early manhood, the principle of constitutional management already described, namely, the restoration of power by diet, by hygienic measures, and by tonic remedies, may be regarded as the universal plan of treatment and unfailing in its results. In society we find many difficulties thrown in our way in the carrying out of our intentions, and greatest of all that which accompanies the educational period of life. The educational period is also the growing period; and it would seem to demand no great stretch of judgment to understand that during growth every kind of animal, whether human or brute, if it be expected to attain the full expansion of development and strength appropriate to the perfect standard of its class, must be thoroughly well fed. Childhood and youth are the season during which the structure must be raised, and the building cannot be solidly established without a sufficiency of material. Some of our education-farmers seem to think differently, and if we are to credit them, the best way to furnish the mind is to starve the body; they would seem to pin their faith on the belief that an exhausted body is an active absorbent of learning of every kind. Not unfrequently we have to contend with this folly on the part of parents, who appear to be taken by surprise by the announcement that abundant food is a necessary institution of our social fabric. The same unreasoning prejudice has created an opposition to beer, the very mother's milk of our people, and yet we have never heard of a mother, who was able to digest it, who did not make beer the basis of nourishment of her infant. Vastly well has it answered the purpose in this island up to the present time, and will, I believe, long continue to do the same.

When we contemplate the splendid works of the great masters of the painter's art, and watch the man with his little daubs of colour ranged in proper order around his palette, the thought comes upon us over and over again of the simplicity of the means through which such admirable results have been attained; but the same means in the hands of the uninitiated must end in disgraceful failure. May we not transfer these same thoughts from painting to medicine? Our means may indeed be extremely simple, but how few can employ them with a perfect result; and yet I believe that a steady and conscientious determination is all that is necessary for the attainment of complete success. For the cure of trophopathic eczema, the eczema of the nutritive period of life, all that is needed is food—food in diet, food in medicine—for arsenic and iron are both food; and food externally by means of a palliative protection to the skin.

When we have passed the nutritive period of life, we are brought into contact with other predisposing causes of eczema. There is the exhaustion of childbirth and nursing; there are anxieties and afflictions of various kinds; there are great struggles in the battle of life, and there are its undeserved reverses. All these causes depress the nervous power and the physical vitality of the body, and they subject the skin to the invasion of eczema. If we gird ourselves to its treatment and cure, we find our minds travelling over similar ground to that which we have already traversed. The important questions of hygienics, of palliatives externally, and tonics of every kind within, are still the subject of our thoughts; and if we have to deal with chronic stages of the disease, then we shall require the aid of arsenic and external stimulants.

There is no phase of eczema which is so deeply interesting as that which comes before us at the full maturity of age, when eczema presents itself as the manifestation of a disorder of the digestive functions, when it appears before the whip of our body's greatest friend, and sometimes tormentor, the liver, or when it obeys very obviously a derivative influence. Over and over again we hear speak of nausea, of want of appetite, of torpid excretion, annoying the individual for days or for weeks, and ending in an outbreak of eczema as sudden as an exanthema. At other times the invasion of the eczema is slow in its progress and more partial in its effects; but a little retrospective search discovers

some foregone dyspepsia, or neuralgia, or rheumatism, or gout, which may have wholly disappeared under the new dispensation. Such cases are especially incidental to the present period of life, and their treatment may be framed upon a plan as routine in its character as that which we have heretofore laid down for the previous groups.

We have no longer to search out the most nutritive diet that can be attained, but rather to shear it of its redundancy. We have to regulate digestion, to facilitate movement along the alimentary canal, and relieve the liver of its overburden of duty. It is remarkable how quickly a sudden and particularly an accidental eczema will yield to this method of treatment; but cases of a chronic character will require a more assiduous pressure. In the former cases the blending of a mild saline purgative with a bitter infusion, and the addition of iron and quinine, will remove all the symptoms of the eruption in the course of a few days; while in the latter a mild purgative treatment must be succeeded by a more or less prolonged course of tonics; and in the end it may be necessary to call in the aid of a nerve-tonic, which experience has proved to have a powerful influence in giving vigour to the skin, namely, arsenic.

It is an old naval saw, that if there were no storms and no shipwrecks every old woman would be going to sea; and something similar may be said with regard to medicine. If medicine were a mere routine we should have curers of disease without end, where at present we have few. We need all our judgment, all our knowledge, all our tact, to become good and successful practitioners of medicine. We must be ready to confront every irregularity in the course or in the manifestation of disease; and we must, above all, exercise sound common sense, which we shall always find our best ally in helping us out of the difficulties that beset our path.

I may repeat that too little or too much food, weak assimilation or perverted assimilation, may each and all be the cause of eczema; as also may loss of the natural food with incompetent substitutes in the infant, deficient and unsuitable food at the growing period of life, and excess of food in proportion to the powers of digestion at mature age. Assimilation, again, and sanguification, may be impeded or perverted by the illnesses belonging to every season of life; to the earliest period, when nutrition is active; to the mature period, when the nutritive changes are indolent and sluggish; and to the declining stage of life, when waste is the preponderant movement. These considerations and many more will have their weight in our minds in dealing with the treatment of the eczematous affections, and will be our best guide in adapting the details and modification of our curative measures to the varieties which the disease may present. We may hold it as an axiom, that whatever strengthens the body and restores the health will at the same time be the best cure of eczema.

Passing away from general eczema to the eczema occasioned by the presence of the acarus, namely, scabies, it will occur to you that, as the cause is local, and as the art of curing disease is the removal of the cause, we shall have no need of internal remedies in scabies, but may confide in some of the well-known means of destroying the life of the animalcule and its ova. This is literally true: a little sulphur-ointment rubbed into the burrows of the animal and into its haunts is speedily destructive of its life; and then, moderate care with reference to cleanliness and ablution complete the cure. The acarus is highly sensitive to the lethal influence of certain substances. Among these substances, and first on the list, is sulphur, another is stavesacre, a third styrax; but no purpose would be gained by multiplying their enumeration. The acarus is an air-breather, and one of the peculiar instincts of the creature is the provision which it makes for ventilating its dwelling-place. Now fat and oils of all kinds are known to suffocate air-breathing animals by entering their spiracles and obstructing the aperture through which they receive air—hence greasy substances alone are natural cures of itch, although their force and certainty may be increased by an admixture of sulphur or stavesacre.

The modern treatment of scabies, such as I practise it myself, is extremely simple. I require my patient to wash the whole body night and morning with sulphur-soap; to use sulphur-soap to the hands for ordinary ablution in lieu of common soap; to rub a little sulphur-ointment thoroughly into the hands, the wrists, and between the fingers, at bedtime, and at the same time to smear a little of the ointment on any part of the body where there may be itching. There is no occasion to suspend the ordinary associations and avocations of the patient; there is no need of isolating him; the first inunction will destroy in a few hours every existing acarus; if any escape, the repetition of the same plan for a few nights is sufficient; and by these repetitions the ova are equally effectually deprived of life.

The quantity of sulphur-ointment necessary for the cure of scabies is marvellously small, and its odour may be covered by a few drops of the essential oil of camomile, which is also a parasiticide. The vapour of sulphur exhaled from the skin disinfects the clothes, and the patient

himself becomes for a while a disinfectant towards those with whom he associates. It is, of course, important that ablution should be rigorous in respect of all articles of clothing which admit of washing; and woollen clothes must either be laid aside for a while and sprinkled with sulphur, or submitted to the action of a high temperature.

Sulphur demands a little caution in its use, in consequence of its tendency to irritate the skin. This, however, can only occur when the substance is roughly employed; and in such cases it may be necessary to suspend its application and employ some milder remedy. In the instance of infants, the sulphur soap, used twice in the day, with the gentle inunction of lard scented with the oil of camomile, is often quite sufficient for effecting a cure; and in adults with a sensitive skin, the unguentum staphisagriae will generally prove effectual without any other sulphur than that of the soap. In public institutions, it will be necessary to see the sulphur treatment properly performed; and, when there is evidence of an abundant colony of acari, the ointment may be more extensively employed. There is a process enforced in the Belgian army which is little worthy of imitation, but which is so far an improvement on the old method that it is capable of restoring a soldier to his duty the instant it is completed. It is called the two-hour cure, and is performed as follows. The patient is thoroughly rubbed down with soft soap for half an hour; he is then soaked and washed with warm water for another half-hour, so as to get rid of the soap and no little of the epidermis; in the next place, he is scrubbed with the solutio sulphuris cum calce for a third half-hour; and within the remaining half-hour his dress is replaced, and he is delivered back to his military quarters.

It may be as well to bear in mind, in connexion with the sulphur treatment, that scabies is an eczema; and that eczema is a simple inflammation of the skin, susceptible of being excited by every kind of irritant. In very sensitive constitutions, the sulphur treatment might prove to be sufficient of an irritant to excite an ordinary eczema; and in this way, in addition to a vexatious aggravation, the diagnosis might be seriously complicated. And, besides, there is another possibility that may be assumed: the patient may possess an eczematous diathesis, perhaps an inherited diathesis, in which case a troublesome eczema may follow upon the incautious employment of remedies intended for the cure of scabies. Not unfrequently this very result is experienced; and sometimes an intractable lichen follows the treatment of scabies, and, together with eczema, is classed as a sequela of that disease.

OBSTETRIC MEMORANDA.

BLEEDING IN URÆMIC PUERPERAL CONVULSIONS.

IN the BRITISH MEDICAL JOURNAL for 1863, I published five consecutive cases of puerperal convulsions successfully treated by venesection. The following case of uræmic poisoning affords further proof of the efficacy of bleeding in such cases.

A. Paget, a poor married woman, a primipara, aged 21, of small stature, in the ninth month of uterine gestation, was attended by a medical man (living near) on account of confused vision, pain in the head, and sickness. In the course of the night of February 20th, convulsions came on and occurred frequently, attended by loss of sight and complete insensibility. On the 21st, when her medical attendant saw her, uterine action was going on, and he left the case. I was from home when sent for, and my friend, Mr. Hogg, visited her in the evening. The convulsions had ceased, and he delivered her instrumentally. Next day my assistant attended her; she was quite blind and insensible; no urine had been passed. The usual remedies were applied. On the 23rd, her bowels had been freely acted upon, and she was a little better. The catheter was again required. On the 24th I was sent for, as her friends thought she was dying. I found her quite insensible. The pupils were fully dilated, and she was quite blind. The pulse was very quick; the breathing very feeble. There was no stertor. I took fifteen or sixteen ounces of blood from the arm. In the course of the night she passed urine and her motions under her. On the 25th, the pupils acted on the application of light. No urine had been passed. She could now take a dessert-spoonful of fluid at a time. The urine was removed, and found to be loaded with albumen. On the following day she appeared much better. At 9 P.M. I was sent for, on account of violent pain in the region of the uterus and vagina. Leeches, fomentations, and poultices, gave relief. The next morning she had passed urine and a quantity of muco-purulent matter from the vagina. On March 1st, when I saw her, she was going on favourably. On the 7th, her sister called to say that she was much better.

WM. WEAVER JONES, Cleobury Mortimer.

ABSTRACTS OF CROONIAN LECTURES

ON

SOME POINTS CONNECTED WITH THE
ELIMINATION OF NITROGEN FROM
THE HUMAN BODY.*Delivered at the Royal College of Physicians, London.*

By E. A. PARKES, M.D., F.R.S.,

Professor of Hygiene in the Army Medical School at Netley; Emeritus Professor
of Clinical Medicine in University College.LECTURE III.—*Wednesday, March 22nd.*

THE remarks made in the second lecture might, Dr. Parkes said, naturally lead to the consideration of the effects on health of certain changes in diet, such as the effects of fatty food and of nitrogenous diet, and the influence which could be exerted on the gouty and gravelly diatheses. He would, however, in this lecture, only consider how far pathological doctrines were affected by the views already expressed.

It had been shown that the exit of nitrogen from the body was in health regulated by its entrance; and that this correlation was but little affected by muscular exercise or mental work, or by the action of the skin and lungs. There are several non-nitrogenous substances which have been supposed to reduce the amount of urea excreted. Among these is coffee; which, however, according to Voit and Squarey, has no influence. Tea has very little effect, if any, in causing a reduction. Alcohol has been regarded as lessening the elimination of nitrogen—perhaps by retarding oxidation; but, from his experiments, Dr. Parkes has been led to believe that it has no such action, and can only reduce the exit of nitrogen by limiting the entrance. Sugar and starch, according to Voit, diminish to a small extent the elimination of urea in dogs. The ingestion of a large quantity of water has been said to increase the elimination of nitrogen; so also has chloride of sodium; but in neither case is the effect great, and the nitrogenous food has more effect on these accessory articles of diet than they have on it. Meteorological conditions in this climate have little if any effect; what they may have in tropical countries, was a question on which Dr. Parkes would not now enter.

While the relation between the entrance and the exit of nitrogen is thus exact in health, in disease there are great differences, especially in febrile states. Since the time when Dr. Parkes delivered the Gulstonian Lectures, sixteen years ago, our knowledge of the modifications of the nutritive processes in disease has greatly increased. It was then necessary to be satisfied with saying that the nitrogenous tissues underwent rapid metamorphosis in fever; but now we can go a step further. It must be remembered that in disease as well as in health the general doctrines as to nutrition must be equally true, especially as regards the two forms of albumen—the fixed and the circulatory; and that urea is not formed from the fixed albumen, but from the circulating.

One of the best known facts in pathology is the emaciation which attends febrile diseases, and the consequent loss of weight. In a case of pneumonia, it has been calculated that in five days 21 per cent. of muscular tissue was destroyed—which would amount to about 9 per cent. of the entire weight of the body. This removal of nitrogenous tissues is not reduced by giving fat and starch as foods; though the administration of these articles sometimes hinders the removal of fat. That the muscles are affected in febrile disease, is shown from an early period by weakness and disinclination for exertion. The change which they undergo in typhoid fever has been described by Zenker; and a similar change has been shown by Buchanan to be produced in the cattle-plague. The involuntary muscles are also affected, as is shown by the reduced force of the heart, and by constipation, indicating a want of power in the intestinal muscular fibres. The nervous system also is affected in fever, as shown, for instance, in the mental state often met with at the end of the disease. The skin also is affected; and that this is not a mere result of wasting, but of some further modification of nutrition, is shown by the marks on the nails, which are produced during the state of pyrexia. With the general loss of weight, the temperature of the body begins to fall.

In internal organs, an opposite condition occurs to that met with in the muscular and nervous systems. The spleen is congested, and often presents an excess of cell-growth; the liver is congested, there may be an excess of bile—sometimes there are changes in the liver-cells; the pancreas is swollen; and the intestinal glands are often full. While, then, the muscular tissue is underfed in pyrexia, the spleen and liver are overfed.

The increased elimination of nitrogen in fever is by the urine, and not by the bowels; and the quantity often greatly exceeds that taken in with the food. The excess is evidently chiefly derived from the muscles and nerves. In badly nourished persons, with small muscles, there may be but a small amount of urea in the urine in febrile disease. In such cases, the increase of heat is often slight; but the danger is not thereby lessened. The excess of nitrogen is supplied from the food taken; nothing can be got from the wasted muscles.

In health, it has been seen that urea is not directly derived from the muscles, but from the albumen of the blood: in fevers, it is still formed from the albumen, but its formation is greatly favoured by the state of the muscles and nerves. According to Voit, the “organ-albumen”, stable in health, becomes unstable in pyrexia, and breaks down readily into circulating albumen, which is brought to the glandular organs, and becomes transformed into urea. In this way are also explained the state of the liver and spleen, as well as the variations in the degree to which these organs suffer. In the old, the muscles are more flaccid, and less of the circulating albumen is brought to be acted on by the glandular organs. We see also how, if the liver and spleen begin to undergo disintegration, excrementitious matter may be retained in the blood, to the danger of the patient. The enlargement of the spleen in ague is not here referred to, being no doubt a special condition; and, again, the presence of putrescent material in the blood has an influence on the spleen and liver.

How is the condition of the muscular and nervous systems produced, to which reference has been made? It seems that the growth and decay of the voluntary muscles are to a certain extent regulated by the will. In pyrexia, the power of volition is suppressed, and the muscles are lessened. This may be one cause of the wasting; but the wasting is too rapid to be accounted for by mere disuse. Perhaps it may be explained by the condition of the nerves, regarding the influence of which in nutrition we have learned much in recent years. It is probably the inhibitory nerves which are chiefly concerned; but even beyond this there must be something, which requires investigation by means of electricity and the microscope. The serum of the blood also undergoes change, becoming poor in albumen at the end of fever; the membranes also become thinned, and the glands reduced in size; the red corpuscles also are found to have undergone destruction.

The relation between the increased elimination of nitrogen and the increase of temperature seems at first very close. It would appear, indeed, as if the increased heat could be explained by the increased chemical changes; but there are difficulties in the way of accepting this explanation. Sixteen years ago, when Dr. Parkes gave his Gulstonian Lectures, it was expected that the augmentation of heat and chemical changes might measure each other. Later researches, however, have proved that the elimination of nitrogen is not always in relation with the temperature. This is perhaps to be explained by the cooling process which goes on through the transpiration from the skin, etc. Again, in ill-nourished persons suffering from fever, there may be small or moderate elimination, and at the same time great elevation of temperature. Further, in children suffering from slight febrile disease, there may be a high temperature, with but little increased elimination. More investigation, however, is required here. In ague, Dr. Ringer has shown that an increased elimination of urea begins before there is an increase of temperature. The same thing has been observed in the remittent fever of Prague—a disease somewhat resembling ague. In scarlet fever, Dr. Ringer has not been able to trace the relation between the elimination of urea and the increase of temperature; but on this point more observation is necessary. In diabetes, there is increased excretion of urea without augmented heat; and in tetanus there is great heat without increased elimination. These facts are as yet difficult to reconcile with the connexion between tissue-change and the development of heat; yet we must admit that such a relation exists.

Can we, from our knowledge of the relations between the tissue-changes and the development of heat, determine what diet will be suitable to a given disease? Can we regulate the food of a patient whose nervous and muscular tissues are in a state of forced rest? The albuminous food given in such cases, and not applied to the nutrition of these tissues, is perhaps thrown on the glands. Ought not the withholding of nitrogenous food in fever, and its renewal in the apyretic state, to be the rule? There is no doubt that emaciation is greatly lessened if digestible fats be given to febrile patients. Why should not cod-liver oil, butter, and similar substances, be given in pyrexia? Sugar and starch are indeed given; but their influence in retarding the change of organ-albumen is not sufficient. In convalescence, the carbohydrates and fat are still more necessary.

In chronic diseases attended with wasting, there is considerable difficulty. Cases may occur where, without elevation of temperature, the exit of nitrogen exceeds the entrance. In diabetes, the excess of urea

no doubt has some relation to the food; but there is in this disease a breaking down of healthy tissue, and hence there may be more eliminated than can be accounted for by the food. That the muscles are affected in this disease, is shown by their state of weakness. The conditions observed in diabetes appear at first to throw doubt on the relation between the elimination of nitrogen and the development of heat. But there are circumstances which tend to reduce the temperature: the tissue-metamorphosis is very slow, and, after all, the extra amount of eliminated nitrogen is small. In some cases, where a diabetic patient has been attacked with fever, it has been observed that the sugar disappeared from the urine, as if there were an increase of the process of oxidation.

It has long been supposed that in diseases characterised by muscular contractions there must be an increase of urea in the urine. In tetanus, however, the urea is decreased. Senator has found that, in dogs affected with severe spasms, little urea was eliminated. This is in favour of Dr. Parkes's view, that the excretion of urea is diminished during the time of muscular action, and increases afterwards. There is no relation between the high temperature and the excretion of urea in tetanus. The heat is greatest in severe and fatal cases. May it not in this disease have some other origin than tissue-change?

In chorea, it is not well known whether and how far the process of elimination of nitrogen is modified. Probably there is but little increase, and when this does occur, it is during rest.

A recapitulation of the main points of the lectures completed the course.

SHORT TOUR THROUGH THE AMBULANCES OF BRUSSELS AND PARIS DURING THE EARLY PART OF MARCH.

By HERBERT COOPER, M.R.C.S., Wootton Bassett, Wilts.

IN Brussels, through the kindness of Dr. Smith, I received a card of admission to the ambulances. I was exceedingly anxious to ascertain to what extent a limb might be injured without having recourse to the expediency of amputation. My wish was in every way gratified. Amputations were seldom performed without excessive injuries to joints.

In the Ambulance de la Plaine des Manœuvres, built after the American system, and situate about two miles out of Brussels, I saw many cases of compound comminuted fractures of thighs, legs, and arms, the result of injuries from rifle-bullets and pieces of shell, and for the most part of a healthy appearance. In one case (a compound comminuted fracture of the leg), fifteen separate pieces of bone had come away; in another, a fracture of the thigh, five large pieces. The dressing principally consisted in the application of lemon-juice; which, though at first very painful, seemed to exercise a beneficial influence on the tissues. A very generous diet and a liberal allowance of stimulants were given to all. In several cases of wounds penetrating the shoulder-joint, ankylosis had occurred. One poor fellow had received a shot in the right buttock; the ball had passed from right to left through both buttocks, fracturing in its course the right tuber ischii, and passing through the rectum. To my astonishment, no pain or great inconvenience was felt in the act of defecation; probably from a fold of mucous membrane going before and closing the wound; and he could creep very slowly along the ward on crutches. He slept well, but will probably never again sit down. All the sufferers seemed happy and contented; and several showed me with great glee the flattened instruments of their destruction. The death-rate varied considerably. I was informed that in the ambulance inside the town, situated in the Rue du Progrès, they lost forty out of three hundred and fifty wounded. In the American ambulance outside the town, ten only died out of three hundred and fifty wounded.

In Paris, through the kindness of Dr. Mercier and Dr. Wood, I visited many hospitals and ambulances; but I could not get the true ratio of deaths from any of them. The percentage at the Grand Hotel had been enormous. All the wounded that were able to be moved had gone to the South of France.

The American system of ambulance, however, proved by far the best in every way at both places; and the comparative mortality was very small. On the whole, I could not help thinking that there had been a great improvement in the treatment of surgical cases within the last ten years; as, on a former residence in Paris and acquaintance with the hospitals, I had entertained but a very indifferent opinion of French surgery compared with our own.

REMARKS ON SKIN-GRAFTING.

By GEORGE H. B. MACLEOD, M.D., F.R.S.E., F.R.C.S.E.,

Professor of Surgery in the University of Glasgow; Surgeon to and Lecturer on Clinical Surgery in the Royal Infirmary; Surgeon to the Lock Hospital, etc.

IN all large hospitals, cases frequently occur in which M. Reverdin's proposal of transplanting skin can be put to the test; and the writer has within the last few months frequently had recourse to it, in order either to abridge the period of repair, to obtain a covering for large open sores, or to improve so far as possible the condition of the cicatrised surface. All surgeons who have to combat the usual obstacles to effectual and firm healing in extensive granulating surfaces can fully appreciate the advantages promised by Reverdin's process; and thus it has come about that skin-grafting has been largely practised in our public institutions. It in no way detracts from the merits of this plan, that the results obtained have not quite come up to the sanguine expectations formed of it. Extravagant anticipations are seldom realised; but that within certain limits skin-transplantation is capable of supplying most useful aid to the surgeon, cannot be denied by those who have fairly and perseveringly tested its worth.

It cannot be denied that, whatever practical value the surgeon is inclined to ascribe to skin-grafting, and whatever place it may take in our curative methods, it is in itself a most curious and interesting experiment. It wholly differs from the Taliacotian or any of the usual plastic operations in which a connection to the living body is retained by the graft. It resembles in its nature those old stories (but no longer "fables") of Fioravanti, Dionis, and Garengot, regarding the readhesion of separated parts; or the experiments of Hunter (which he, however, speaks of as "old and well known") of transplanting spurs, testes, and teeth from one animal to another—"the success of the operation being," as he tells us, "founded on a disposition in all living substances to unite when brought into contact with one another, although they are of a different structure, and even although the circulation is only carried on in one of them." Palmer tells us that Boronio, in his work, "*Degli innesti animali*," published in 1804, describes the successful transplantation of skin from one part of an animal to another; and it is well known how M. Ollier has, in recent times, transferred portions of the periosteum from place to place, producing masses of bone in unwanted parts. Reverdin's method resembles these in some measure, and is, in short, similar in principle to that of grafting in horticulture. In the following remarks the author wishes to describe shortly the results which he has obtained, without going into unnecessary details regarding special cases. With but few exceptions, all the patients operated on were treated in the wards of the Glasgow Infirmary, and the effects were watched by the surgical clinical class.

When the skin is destroyed throughout its whole thickness, and no "stools" of old tissue remain, it is of course to the edges alone that we can look for an epidermal covering. When thus the surface denuded is large, much time is required; the patient is disheartened, even if his health do not permanently suffer deterioration; and the resulting cicatrix must be tense, weak, and liable to destruction from slight causes. Deformity, too, by displacement and contraction, very commonly results from the same cause. To establish islets or centres of cicatrization in various parts of the wide surface, and in this way to multiply the points of growth, and so to expedite the covering up of the wound, and also, it may be, to diminish tension and contraction, are the objects and aims of skin-grafting.

1. As regards the surface on which the graft is placed, it has been abundantly shown in the writer's cases, that the nearer it is brought to that of a "healing sore" the better; in fact, this is, perhaps, the chief element of success. The granulations should, in a typical case, be numerous, small, acuminate, pliant, and firm; well supplied (not excessively so) with red blood, so that the surface presents an even, regular, fresh blood colour. The discharge should be moderate and healthy; the sensitiveness not great, and yet apparent; the edges healthy, pliant, and shelving down; and the surrounding parts natural. No doubt in many cases, when such a condition of things is present, the battle is won; but we constantly attain to all this (or something approaching it), and yet, either from the great size of the breach, or the long period during which it has remained open, we should fail or be long disappointed in obtaining a satisfactory cure. In such cases, the utmost help is received from transplantation. If the granulations depart much from the healthy standard, success is doubtful or impossible.

2. As to the graft itself, it has done best, in the author's cases, when it consisted of no very minute portion of integument, but a piece large enough to be easily arranged and fixed on the granulations. Half the size of a threepenny-piece is the smallest size which has appeared con-

venient. Any pliant, well-nourished piece of skin will do. It has not seemed to the writer any better when taken from young persons than from adults, nor yet when sought from corresponding portions of the body to that to be healed. Thick hard bits do not thrive well.

Scrapings from the surface have not "caught" with the author, though they have appeared in a very curious and unaccountable manner to stimulate the neighbouring edges of the sore. This was markedly observed in the case of a long-shaped sore on a lad's arm, which resulted from a machinery accident, and had been three months open. Three days after such scrapings were applied at two points in its length, the sides of the sore had there (and there only) contracted and closed, so as to give the ulcer an hour-glass appearance.

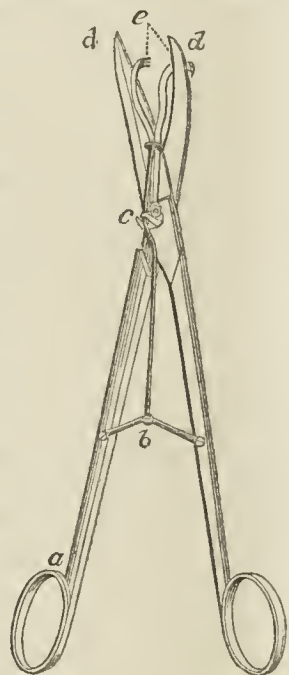
The most reliable results were got from the employment of such a thickness of the skin as might be supposed to include the "stratum Malpighii," with such a thin section of the corium as served to give it consistence. If a deeper portion were taken it rarely succeeded, and the use of a less deep part has been already alluded to. That the succeeding growth is due to the cells of the "rete mucosum" appears probable. An experiment alluded to further on, in which the fluid from a blistered surface was used, would point in that direction.

3. As to the *modus operandi*, the required integument may doubtless be removed by a knife or scissors, with or without the aid of a pair of forceps; but it can be more expeditiously, and with greater certainty and neatness, be got by using the ingenious "forceps-scissors", made by Mathieu of Paris (of which a cut is here given), for paring fistulous openings.

By a mechanism at *b* and *c*, the claws of the forceps (*e*), seize and draw up the plait of integument between the cutting blades (*dd*), as the handles (*a*) are approximated, and so the whole process is completed by one movement, without any other aid. By means of this instrument, such a portion of skin as is required, can be quickly removed without bruising. Almost no bleeding should follow its excision. If blood flows we have probably cut too deep, and have passed into the subcutaneous cellular tissue with its fat, which is not at all fitted for our purpose, as too thick a layer will be interposed between the rete Malpighii and the soil from which it is to draw its support. The bit of skin must be carefully spread out on the spot which it is to occupy; and this is best done by the aid of needles. When first removed, it curls on itself, becomes blanched, and looks as if hopelessly dead. The writer has not obtained any good from disturbing the granulations at the place to be planted—on the contrary, the bleeding and irritation thereby occasioned has seemed positively injurious. It is well to place the graft on the higher parts of the sore, so as to encounter the least amount of suppuration, and the minimum chance of displacement. For fixture, a strip of common adhesive plaster, so cut as to form a narrow portion over the graft, but to take a firm hold on each side and round the limb, has answered well. The part of the plaster in contact with the graft should be sufficiently narrow to allow of the bit of skin being seen on each side of it, and in this way we can always judge of its fate and progress. The plaster should be applied firmly, but not unduly so, and if it become prematurely loose another similar portion can be applied over the first, but no attempt should be made to remove the first strip till we are sure that the graft is secure—probably not for a week. All contact with lac, or any other plaster beyond that above described, has seemed injurious. No dressings are applied to the sore, but contact is avoided by building up a wall of dry lint all round, and covering the whole in by a roof of plaster. Harm has appeared to attend the use of any kind of wash (especially one containing carbolic acid) in the earlier stages of the process. Afterwards, when the adhesion of the graft is secure, it is desirable to employ whatever local applications the character of the granulations demands.

4. Rest in bed has always been enforced when the lower limb was the seat of the experiment. Whether such be absolutely necessary or not the writer's experience does not enable him to say; but, beyond this, absolutely nothing has been done to help the healing of the sores treated by grafting. The diet, etc., has been in no case altered or fortified.

5. The period of incubation has varied from a few days (four, apparently, though it is difficult accurately to determine) to twenty-three days. In one case, three grafts were lost (as was supposed), and yet one of them began to show on the twenty-third day. After they take



and desquamate (as they usually do), it may be many days (in one case a month) before they begin to grow. The outline of the new piece is apparent, or a small islet of prominent granulations marks its position, or a glazed point sunk slightly in the surface indicates its bed; but some day, as we uncover it, the delicate growing opaline line is found stretching itself out around, and covering in, as with a varnish, the crowns of the granulations. When this stage is reached, we can employ dressings direct to the surface of the sore; but it must always be remembered that we deal with the most delicate organisation, and no irritating application should be risked.

6. The general condition of the patient will affect the future growth of these new grafts, even more evidently than of any other part of the sore. Their vitality is long fragile; they have for a time but a feeble claim on the nutrition of the part, and so they become a delicate test of the patient's state of health. From this it follows that careful attention must be paid to the general health, secretion, etc., during the process of transplantation, otherwise failure will follow.

7. It is not unusual for a graft, after securing its hold on the granulations, and even after it has begun to grow, to cease augmenting and remain many days stationary. This will in general be found to depend on some temporary derangement in the patient's health, or on some irritation or violence to which the part on which the graft lies has been subjected. If the cause interfering with its progress be not removed, the vitality of the new skin may be completely compromised.

8. The writer has seen reason to believe that the cicatrix which remains after the healing of a large granulating surface into which grafts have been placed, and which consequently has formed from several centres, is considerably more distensible and supple than what would otherwise have been obtained. This has been very noticeable in several cases, and is a very important feature, as it follows that less displacement of parts, less deformity, and greatly less risk of subsequent deterioration or destruction of the cicatrix, will attend cases thus treated.

9. In the management of the cases on which these remarks are founded, no protection against cold by cotton-wool or other agent was employed; but a roof of strong plaster was put over the surface simply to guard it against contact. In all cases the grafts, when developed, have appeared to possess the usual endowments of integument, and to assume all its appearance, and the healing obtained has been as permanent as could be wished.

10. Grafts transferred from one person to another succeed perfectly. No attempt has been hitherto made by the author to utilise the skin of an amputated part.

11. Attempts have been made to heal sores by covering them over with the fluid from recent blisters. After vesication and the collection of the serum and the coagula in a test-tube, an ulcerated surface in a fit condition for its reception has been surrounded by a circle of gutta percha, made to adhere closely to the skin by a solution of the same in chloroform. In this way a cup-like cavity was formed, and into this the fluid referred to was slowly poured—the coagula being gently bruised down on the surface of the sore. A film was quickly formed over the granulations, and, as large numbers of epidermal cells were thus placed on the granulations, it was hoped that cicatrization might follow. In the first case, in which the writer himself took charge of the experiment, the result was most remarkable; but in a subsequent case it wholly failed to produce a healing layer all over the sore, though otherwise the ulcer closed quickly from the edges. Further trials of this method will be made under varying conditions. The instance above alluded to, in which serum was employed, was a very striking one. A young woman, who had from early life suffered from a leg weakened and deformed by a cut, which had divided the calf, was admitted into the hospital on account of obstinate ulceration near the ankle. The leg was always cold, the seat of perverted sensation, and generally weak from deficient nutrition; and the ulcer, which on admission was foul and unhealthy, presented those characters which are seen in "menstrual" sores. For many weeks little improvement was obtained. Several times it seemed as if cicatrization was to be attained, and then some trifling cause made it again open up, and the reappearance of the catamenia almost or altogether destroyed the progress made in the previous four weeks. Her sore was by far the most rebellious of the many treated during the year. When a few weeks ago the granulations had for the fifth time assumed a healthy appearance, and the sore was larger than a crown-piece, a small graft was put in its centre. This lived but did not grow. On Friday, Feb. 17th, the sore was covered with a layer of serum, taken from a blistered surface on the person of a patient in the next bed, and was kept exposed till the fluid partially dried, and was then covered up. When the cover was removed, on Tuesday, Feb. 21st, the sore was "healed to a point", and quickly became firm, allowing of the patient being dismissed in a few days thereafter. This case was at least curious and encouraging. A subsequent attempt, as was

before said, to accomplish the same thing in another patient, failed, but from what cause further observation must determine. Was the success in the one case a mere accident? Was the rapid healing due to anything specific in the fluid used, or to mere covering up from the air? The latter does not appear probable, as other agents which could only act by excluding the air when applied in the same way directly to the surface of a granulating sore have usually augmented the suppuration, and injured the sore. This, and other collateral points, will demand further attention.

In conclusion, it may be observed, that the practice of grafting will always afford an hospital surgeon much subject for interesting study and thought, and cannot fail to suggest many useful practical hints of wide use in his profession.

NOTES ON CONSUMPTION.

By RICHARD PAYNE COTTON, M.D., F.R.C.P.,
Senior Physician to the Hospital for Consumption, etc., Brompton.

II.—VARIETIES OF CONSUMPTION.

ANOTHER form of phthisis, for which has been claimed a special classification, is that described by Dr. Andrew Clark (*Transactions of Clinical Society*, vol. i, p. 174) under the name of "Fibroid Phthisis". I must confess, however, that, notwithstanding its introduction by so well known and accurate an observer, I have as yet failed to recognise it as a distinct form of the disease. It may turn out, perhaps, that I differ from my friend Dr. Andrew Clark more verbally than essentially, as I quite admit the existence of such cases as he has described. I consider them, however, as differing in nothing from the more ordinary forms of phthisis, except in the presence of an unusual amount of fibrous development.

Few cases of consumption go through their several stages without the deposition of more or less of the fibroid element within and around the pulmonary tissues. Without such deposition, indeed, phthisis would run, much oftener than it does, a rapidly fatal and acute course. Fibrous material often serves both to bind down the lung to the thoracic walls and to strengthen the pulmonary tissue, thus preventing a rupture of the lung and consequent pneumo-thorax. It also serves to contract the diseased lung; and, by forming bands running into the pulmonary substance, contracts, and sometimes even obliterates, tubercular cavities. Such conditions, indeed, must be sufficiently familiar to all practical pathologists. Cases, however, now and then occur, in which this fibrous development is most unusually apparent. I have seen lungs thus contracted to less than a third of their normal volume, and causing such displacement of the heart and other organs as to lead to some difficulty in the diagnosis between phthisis and chronic pleurisy. In one case of this kind which I saw some years back with Dr. Walshe, the pleura was thickened to the extent of more than half an inch, the fibrous material having in some places undergone cancerous degeneration, apparently of a secondary character. Many cases, which have been described and figured as instances of healed-up vomicae, are, I believe, nothing more than examples of dense fibrous matter having been deposited upon and within the lung-substance, in order to contract its volume and strengthen its tissue. I agree, therefore, with Dr. Andrew Clark as to the existence of certain cases of phthisis accompanied with great fibrous development. I am at issue with his views only so far as he considers such cases as peculiar forms of phthisis, and as presenting a claim for special classification.

Phthisis is, in my opinion, one of the diseases of organic degeneration, consisting essentially in the development or deposition of a certain lowly organised and variously constituted material, which we call tubercle. In the great majority of consumptive cases, I believe that such deposition is not due to inflammatory action; any inflammation, whether pulmonary, bronchial, or pleuritic, which may accompany it, being of a secondary kind. In not a few cases, however, consumption has a completely different mode of origin. It may arise either from simple idiopathic pneumonia, or from that form of lung-inflammation which, either from its original association with a tubercular diathesis or from its tendency to develop it, has been termed phthisical, or caseous, or tubercular pneumonia. It may arise, too, although it does so much less frequently, from that form of low and congestive capillary bronchitis which so often simulates real pneumonia. In such inflammatory and congestive conditions, indeed, many of the most acute and intractable cases of consumption have their origin. It needs only that a simple and ordinary pneumonia, or an attack of congestive capillary bronchitis, should be imperfectly recovered from, and that the patient should then degenerate in health, or that one of these diseases should

originate in a person already what is commonly called "below par", or otherwise predisposed to tuberculous affections, in order that the resulting lung consolidation or congestion may sooner or later become the seat of tubercular decay. In such instances, the material deposited in the lung, which under more ordinary and healthy circumstances would undergo absorption, either is from the first of a lowly organised or possibly even of a tubercular type, or it sooner or later becomes so, and gradually undergoes the same changes and gives rise to the same symptoms as a tubercular deposit which has been formed by the more gradual and uninflamatory process spoken of previously.

I have long been of opinion that true pulmonary consumption always arises in one of the ways above described: the chronic cases more generally from the slow and uninflamatory process of tubercular deposition; the more acute cases rather from tubercular changes consequent to pneumonia or bronchial congestion. I believe, however, that the greater number of cases combine during their career both of these pathological conditions, undergoing, in their progress, certain modifications depending upon the existence of either the one or the other. Many cases, for example, may commence in the slow and gradual deposition of tubercle of varying degrees of vitality, and may then be hurried onwards by a secondary pneumonia or bronchitis which gives rise to further tubercular degeneration. Other cases may begin in a degenerated pneumonia or bronchitis, which, becoming more or less quiescent, may be succeeded by the slower and more ordinary process of tubercular deposition. Every possible intermixture and alternation, indeed, of such conditions, must necessarily occur, affording another and a very simple explanation of the almost endless differences met with both in the symptoms and progress of consumption.

The practical bearing of this simple view of phthisis is sufficiently evident. If, in very many cases, we are afforded, by the slow formation of the tuberculous deposit, a fair chance of arresting the disease by the alteration of circumstances likely to favour such deposition, how important must be the recognition and the treatment, in all such cases, of any secondary congestive or inflammatory attack. And, again, if pneumonia and certain low and congestive forms of bronchitis be not only very possible, but also very frequent, causes of phthisis, how important must be the treatment of every stage of such diseases, and how essential the consideration that their danger does not pass off with their acute symptoms, but that in the consolidations and structural changes which these so often entail, and which are so apt to be either overlooked or disregarded, consists perhaps the greatest danger of our patients.

[To be continued.]

CLINICAL MEMORANDA.

REMARKABLE CASES OF REVACCINATION.

THE following cases of successful revaccination of persons who might have been supposed to be protected will be found interesting.

CASE I.—W. B., aged 40, Scripture reader, had been inoculated as an infant, vaccinated at 10 or 11 years of age, revaccinated at 18 on joining the Royal Marines, and had five good cicatrices. As he had to visit in a neighbourhood where small-pox was rife, I advised that he should be revaccinated, and was rather surprised as well as pleased to find that two out of three places took, and presented on the eighth day lymph-vesicles, surrounded by a red areola.

CASE II.—Mrs. B., aged 38, wife of the above, was never vaccinated, but had small-pox when eighteen months old, and is deeply marked. She was vaccinated in three places, all of which took, and resulted in lymph-vesicles, each forming on the eighth day a true "pearl on the rose".

H. NELSON HARDY, L.R.C.P., M.R.C.S., Senior Medical
Officer St. Marylebone Provident Dispensary.

Fitzroy Square, W., March 1871.

TRACHEOTOMY IN YOUNG CHILDREN.

I WOULD supplement the case given by Mr. Cooper Forster by those noted by Meigs and Pepper in their work on the *Diseases of Children*. I myself have operated on a child under two years of age, but only to add to the "euthanasia" (all idea of averting the tendency to death being abandoned before I was asked to operate by the gentleman in attendance); and with such intent, I presume, Mr. Vincent Jackson would waive his objection to the operation even in very young children. To those who may not be acquainted with the work from which I quote, I would recommend it as an exhaustive treatise on the subject of which it treats, and I consider it a most valuable addition to the literature of

children's diseases. In the fourth edition of this work, at page III, the subjoined remark occurs. "The following list embraces the names of the operators and the age of the infants in the cases which have been successful at a very early age: Baizeau, at 10 and 15 months; Isambert, at 16 months; Archambault, at 13 and 18 months; Roger, at 19 months; Vigla, at 17 months; Totani, at 18 months; Moutard-Martin, at 18 months; Troussseau, at 13 months; Barthez, at 13 and 7 months; Maslieurat-Lagemand, at 23 months." To these I may add, Cooper Forster, at 11 months. C. E. SAUNDERS, M.D.

Haywards Heath, March 1871.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE VI.—Wednesday, March 1st.

THE Hapalidæ or Marmoset Monkeys have four teeth fewer than the Cebidæ. Their dental formula is $i \frac{2}{2}, c \frac{1}{1}, p \frac{3}{3}, m \frac{2}{2} = 32$. The number of teeth is the same as in the Old World Monkeys; but it differs in that a molar tooth is wanting, instead of a præmolar. The præmolars are very simple, having but one cusp. The molars vary much, but have the quadricuspid character. In Midas, the lower incisors are small, and the canines large; while in Hapale the incisors are as long as the canines. In this respect they approximate the Lemurina, though the resemblance is not sufficient to indicate affinity. These Monkeys are very insectivorous, and eat also small animals.

In some fossil Monkeys found in Brazil, the characters of the teeth agree with those of the present New World Monkeys. No intermediate forms connecting them with the Old World Monkeys have been discovered.

Lemurina have their head-quarters in Madagascar, where there are no true Monkeys; they are also found on the mainland of Africa and in the further part of Asia. No general dental formula can be assigned to this tribe, on account of the modifications met with in the Aye-Aye or Cheiromys, and in the Tarsius.

In the Lemuridæ, the upper incisors, two on each side of the jaw, are very small, and are separated in the middle line. The upper canines are very large, hooked, and sharp. There are mostly three præmolars, and three true molars with many cusps. In the lower jaw, the arrangement of the teeth is remarkable. In front, there is a cone formed of six narrow compressed teeth, projecting straight forward, and not meeting those of the upper jaw. Next to these is a large pointed tooth, resembling a canine, but fitting behind the upper canine, in place of lying in front of it. In some of the smaller Lemurs, the outer tooth of the cone on each side stands out apart from the others; and most zoologists now regard the cone as consisting on each side of two incisors and a canine; the large canine-like tooth being in reality the first præmolar. There are on each side in the lower jaw three præmolars and three molars, making the total number of teeth thirty-six. The dental formula of the Lemur is applicable to nearly all the Lemuridæ. The exception is the Indri, a large Lemur of Madagascar, which has only two præmolars on each side of the jaw. Its projecting series of incisors in the lower jaw consists of only four teeth.

In the Lemur itself, the præmolars are compressed from side to side, and the molars have each two cusps and a lobe on the inner side. The Hapalemur and Lepilemur are destitute of upper incisors. In the Galago—an African Lemur—the third upper præmolar is very like the true molar lying next to it. There is an apparent indication of a return towards the condition found in the Gorilla and in Man, the molars having four cusps, with an oblique ridge of enamel. The lower teeth of the Galago have a general resemblance to those of the Lemur; but the last præmolar somewhat resembles a molar.

In the Loris or Slow Lemurs, the type of dentition is very like that of ordinary Lemurs. In one species, the outer upper incisor is nearly always absent.

In the Tarsius, the front of the mouth is much compressed, and there is scarcely any space between the teeth. In the upper jaw, the middle incisors are very long and narrow, and meet at the middle line; and next to them comes a small incisor on each side. The lower jaw has only one small incisor on each side. The dental formula of the Tarsius is $i \frac{2}{1}, c \frac{1}{1}, p \frac{3}{3}, m \frac{3}{3}$.

The Aye-Aye or Cheiromys, an animal confined to Madagascar, was for a long time classed among the Rodents; which, however, it resembles only in the structure of the teeth. In all other respects, it is allied to the Lemurs. In the upper jaw on each side is a single large curved incisor; and a smaller one in the lower jaw, the root of which grows far

back. These teeth resemble the incisors of Rodents in having persistent pulps, in being compressed laterally and much curved, and in being only partially coated with enamel. Behind these incisors is a large space free from teeth; and then come some small single molars, four above and three below, the upper ones having three roots, and the lower ones two. The surfaces of these molar teeth are nearly smooth. In an early stage of development of the Aye-Aye, Peters of Berlin has found in the upper jaw on each side three incisors, a rudimentary canine, and three small molars. In the lower jaw were, on each side, two small incisors and two small molars. Nothing of this kind is found in the milk-teeth of Rodents. Not much is known with regard to the habits of the animal; but, according to Dr. Humphry Sandwith, it has been noticed to cut away the hard portions of perforated wood given to it, and to extract the grubs contained in the wood by means of its long delicate fingers. Other observers have stated that it uses its teeth to cut away the hard parts of the sugar-cane, for the purpose of obtaining sugar, of which it is fond. Perhaps both these theories as to the use of its teeth are correct.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. MARY'S HOSPITAL.

SEPARATION OF THE EPIPHYSIS OF THE FIRST PHALANX OF THE GREAT TOE.

(Under the care of Mr. GASCOYEN.)

A CHILD, eight years of age, was recently admitted with the above injury. The case at first sight might have been mistaken for one of talipes equinus, as the child walked on the outer side of the foot; but, on further examination, however, it was found that the head of the metatarsal bone of the great toe was unnaturally prominent, and the extensor longus pollicis extremely tense, the end of the toe being raised. All these appearances passed away when the heel was put to the ground. There was a little pain on manipulation, but no grating. The head of the metatarsal bone could be felt intact, with a rounded movable piece adherent to it, upon which the toe appeared to play. Extension completely reduced the distortion, which, however, returned when the extension was removed. Mr. Gascoyen accordingly thought that the case was an example of separation of the epiphysis of the first phalanx of the great toe. The injury was produced by the child getting the toe under a door whilst at play, and struggling to release herself. This was three months previously to admission into hospital. Mr. Gascoyen divided the extensor longus pollicis, and, after the wound had healed, put the foot in a gutta-percha splint, which was firmly moulded to the toe. The patient did well; and in about three weeks was able to walk about almost naturally.

CONTRACTED GRANULAR KIDNEY, CAUSING MARKED REDUPLICATION OF THE FIRST CARDIAC SOUND.

(Under the care of Dr. SIBSON.)

MR. A. P. BOON, Clinical Clerk, has been kind enough to furnish us with the notes of this interesting and instructive case.

It is most probable that kidney-disease is the cause of abnormal cardiac phenomena in the following case. In the first place, it causes great arterial tension, the immediate cause of which is most probably obstruction of the passage of the blood through the systemic capillaries. This tension is the cause of the aortic dilatation, and so of the impulse observed; it is also the cause of the weak or inaudible first sound over the aorta—that is, in the right second intercostal space. The reduplication of the first sound over the septum is, no doubt, immediately caused by want of synchronism in the ventricular systole. In another case of Dr. Sibson's of contracted granular kidney, with reduplication of the first sound, the impulse of the right ventricle could be distinctly felt before that of the left ventricle. This Dr. Sibson attributes to over-work of the left ventricle, it having much more difficulty in forcing the blood through the capillaries, and so failing to keep up with the right ventricle.

Josiah Ash, aged 33, came in with contracted granular kidney. His face was rather dusky, otherwise he appeared to be in good health. On examining the chest, the heart's apex-beat was found very strong, protruding in the sixth space about an inch beyond the nipple-line; the impulse of the right ventricle was also to be felt from the third to the

sixth left costal cartilages. A distinct impulse could be felt over the aorta. Over the ventricles, the first and second sounds were about equal. About two inches below the nipple, over the septum ventriculorum, there was very loud and distinct reduplication of the first sound. Over the aorta the second sound was singularly loud, and the first sound was very feeble. Over the pulmonary artery both sounds were about normal. The artery at the wrist was very tense, feeling like a piece of whipcord. Respiration was normal. Percussion over both lungs was good. The urine was of good colour, of specific gravity 1020. It contained albumen in small quantities. No casts could be found. The patient passed about forty ounces daily.

January 6th. On using Dr. Scott Alison's double differential stethoscope, one mouth over the right ventricle and one over the left ventricle, the reduplication was heard very plainly; the first sound of reduplication coming from the right ventricle, the second from the left ventricle. It was also noticed that the interval between the first and second sounds over the left ventricle was less than that over the right ventricle.

January 26th. The heart-sounds were as before; but over the aorta the first sound was absolutely inaudible.

At the end of January he had an attack of pulmonary apoplexy, during which his respiration showed a peculiar alternation of deep and shallow breathing.

Dr. Sibson took several tracings with the apparatus invented by himself for that purpose, and applied to the cardiograph.

When he first came in the average daily amount of urea excreted was 490 grains; it is now about 300 grains.

The man is now recovering from the pulmonary apoplexy.

MIDDLESEX HOSPITAL.

OPERATION DAY, MARCH 8TH.

MR. DE MORGAN removed a Cyst lying immediately in front of the Parotid Gland. It was of the size of a walnut, and freely movable. It was exceedingly hard, and simulated, and indeed was believed to be, a fibroma. The cyst could not well be entirely removed, as the walls were adherent to the surrounding tissues, and very friable. The wound was left open and plugged with dry lint.

Mr. De Morgan also removed, from a man aged 50, a further portion of the Tongue, the right half of which had been excised five months previously for epithelioma. He had left the hospital six weeks before, with every appearance of the disease being latent. A ligature was passed through the tongue, the organ was then pulled forwards, and the diseased portion removed by a scalpel. Profuse hæmorrhage occurred, which was with difficulty arrested. As the tongue was found to be too friable to retain a ligature, the actual cautery was applied, after which the hæmorrhage appeared to increase. Lint steeped with solution of persulphate of iron was next applied, which largely stopped the bleeding; and it was ultimately and completely arrested by iced water.

Mr. Nunn removed some Necrosed Bone from the upper part of the Tibia of a female about 40 years of age. The wound was sponged out with pure liquid carbolic acid.

Mr. Nunn also removed a Lipomatous Tumour from the upper and inner part of the left thigh. It possessed a hard base, and was soft at the top. The point of interest in the case was that it sent numerous offshoots from the base, one of which passed into the deep fascia, and another bulged superficially.

Mr. Hulke operated on a female patient, aged 35, who, seven years previously, had suffered from symptoms pointing to Disease of or about the right Shoulder-joint, which continued without much inconvenience for five years. An abscess, however, at length formed two years ago, and burst anteriorly to the axilla. This healed up in a few weeks after free incisions and galvanism. She again, three months ago, began to suffer from symptoms of inflammation in the neighbourhood of the joint, and several sinuses formed on the outer side of the arm, for which she was admitted under the care of Mr. Hulke. On examination under chloroform, Mr. Hulke came to the conclusion, although it could not definitely be made out, that the joint was diseased. The ligaments in the neighbourhood were bare and diseased. It was considered advisable to give the patient a chance of recovering with a stiff joint; the sinuses were therefore freely laid open with the hope that such a result would occur.

Mr. Hulke also operated on a man who had suffered for twenty years from a Sinus communicating with a Bursa over the great trochanter. The sac was laid open, and some pieces of dry lint introduced into the wound.

Mr. Lawson performed Amputation of the Breast in three cases.

The first case was one of Scirrhus of the left Breast in a woman aged

50. The duration of the disease was six months. There was no history of cancer in the family. There were several enlarged glands in the axilla of the same side. There was no ulceration of the tumour, but an eczematous state of the nipple, an occasional condition in cancer of the breast. Mr. Lawson removed the breast in the usual manner, and also the enlarged axillary glands. The growth was found to encroach closely upon the nipple, and presented microscopically the ordinary appearances of scirrhus. The axillary glands were simply enlarged. The wound was washed with carbolic acid lotion (1 in 40), closed by ordinary sutures, and dressed with carbolic oil.

The second patient was a delicate female, aged 35, who, three years ago, suffered from circumscribed chronic inflammatory hardening of the same breast, which eventually subsided under treatment. Eighteen months ago, she was free from all symptoms of the disease. Five months ago she noticed, however, a hard tumour of the breast, with puckering of the skin on the upper and outer side of the nipple. On examination, the skin was not found to be adherent, but the tumour lay immediately beneath it, and the nipple was slightly retracted. There was no enlargement of the glands of the axilla. The patient suffered intense pain, which was greatly increased by pressure. It was a question whether the case was one of scirrhus or not. While she was being put under the influence of chloroform on the operating-table, and while the breast was being more fully examined, a small quantity of pus escaped from the nipple. Mr. Lawson, before removing the breast, cut down on the tumour to ascertain its real nature, and found it to present many of the appearances of cancer, with one or two cysts filled with softened material. He accordingly excised it, believing that it would be unwise, under these circumstances, to leave the breast. Even were it not scirrhus, the gland was destroyed by disease, and it was a chance if the wound would heal up and leave the patient well. On subsequent microscopical examination by Mr. Henry Morris, the Surgical Registrar, the disease was found to be scirrhus.

Mr. Lawson removed a third breast for Scirrhus, of six months' standing, in a very stout woman. There were no points of particular interest in the case. There was no glandular enlargement in the axilla, but she suffered considerable pain in the arm of the same side.

RICHMOND SURGICAL HOSPITAL.

SYPHILITIC LARYNGITIS: TRACHEOTOMY TWICE: RECOVERY.

(Under the care of MR. WILLIAM STOKES.)

THE following case is reported by Mr. Otho Galgey.)

Bridget H., aged 30, was admitted into the Richmond Hospital under Mr. Stokes' care on the 16th January, 1871. The patient contracted syphilis about eight years ago. Constitutional symptoms followed the attack, and the larynx became affected. About fifteen months since she was admitted into the Richmond Hospital under Mr. Fleming's care, suffering from acute laryngitis. She was brought under the influence of mercury, which slightly relieved the laryngeal symptoms; but the beneficial effects were only temporary, and subsequently the dyspnoea became so excessive, that, on September 7th, 1869, tracheotomy was performed. After the operation, the case progressed very well, and on the 22nd September the tube was removed, and the patient left the Hospital a few days subsequently, quite free from all laryngeal distress. For nearly twelve months after this operation the patient enjoyed tolerably good health, but about six weeks before her second admission into hospital she began to be affected as before. Her breathing became difficult, her voice hoarse, and she suffered also from persistent cough. On admission (Jan. 16th), her symptoms were very urgent; she had constant dyspnoea with orthopnoea, stridulous and harsh respiration, troublesome cough, extreme pain referred to the larynx, hoarseness, dysphagia, great anxiety of countenance, and considerable constitutional disturbance. These symptoms increased at night, when violent paroxysms of dyspnoea frequently occurred. The symptoms were so very urgent that a laryngoscopic examination was not considered to be feasible. On January 20th, Mr. Stokes determined that the performance of a second tracheotomy was the only course open in order to save the patient's life. Accordingly he performed the operation. The introduction of the tube was attended with very great difficulty, owing to the violent paroxysms of dyspnoea (one of which was very nearly proving fatal), the struggles of the patient, the depth and mobility of the trachea, its great contraction—a condition probably resulting from the first tracheotomy, and the copious venous hæmorrhage. These difficulties, however, were overcome, and the tube was introduced. This was followed by immediate relief. The respiration continued during the day quite quiet. Occasionally the inner tube became clogged with mucus, which was easily removed with a feather-brush. On January 27th the double tube was removed, and Thompson's bivalve trachea-tube substituted; the

patient being free from all distress, the breathing quite regular, the pulse quiet, and the appetite good. On February 8th, the patient left the Hospital, still wearing the tube, since which date she has frequently presented herself for examination at the Hospital as an extern patient.

HULL GENERAL INFIRMARY.

TWO CASES OF SEVERE INJURY.

(Under the care of Dr. LUNN.)

FOR the following notes, we are indebted to Mr. J. W. Plaxton, House-Surgeon.

CASE I.—John B., aged 8, was admitted on April 26th, having been run over by a locomotive engine, in a state of collapse, but sensible, and uncomplaining: his pulse was just perceptible. The left leg was separated from the body, together with the left ilium, ischium, and pubes; the left auricular surface of the sacrum and the articular surface of the right pubes for that of the left side were exposed, as were also the left side of the bladder and rectum, which showed its sphincter in a state of contraction. The bladder was distended; but, on pressing it a little upwards, the urine escaped by some rent in the urethra, which was exposed from the pubes to the bladder. The external genitals were in place and uninjured. The boy died the following day, having lived twenty-nine hours. There never was any hæmorrhage. At the necropsy, it was found that the peritoneal cavity had not been opened. It showed no marks of injury, and was healthy, with the exception of slight effusion of blood beneath the peritoneum in the left iliac region. The bladder was moderately distended, and a catheter was passed from it to the meatus along the urethra, which was slightly torn in front of the prostate. The left os innominatum was completely separated from the other bones of the pelvis, which were uninjured. The torn vessels were full of coagulum for an inch above their torn ends. In the separated limb, the body of the pubes was broken at its junction with the brim of the acetabulum, and the junction of the ramus of the pubes with the ischium was separated. There were no other fractures.

CASE II.—Wm. C., aged 4, was admitted on August 29th, half-an-hour after the accident. While he was running beneath a coal-cart, with his hands on the axle, his right arm got between the spokes of the wheel, and he received the following injuries. The right arm and scapula were torn from all attachments to the body, except the skin of the axilla, two nerves of the brachial plexus, and the latissimus dorsi muscle. There was no hæmorrhage; the torn end of the artery lay twisted in the wound. The skin was only rent sufficiently over the shoulder to allow the scapula to pass through. The remaining attachments of the arm were divided. Three small vessels bled when the latissimus was cut through. The wound healed in great part by first intention. Three weeks after the accident, he was running about the ward; and he was discharged on September 3th, with the wounds soundly and wholly healed. No bones were broken; the clavicle was in its place and uninjured.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MARCH 21ST, 1871.

J. HILTON, Esq., F.R.S., President, in the Chair.

A REPORT by Drs. DICKINSON and DOUGLAS POWELL on Dr. Hawkes's case of Tumour of the Brain was read. They considered it to be a cyst, now empty, which had originated in an aneurism at the base of the brain.

A report by Dr. CAYLEY and Mr. ARNOTT on Mr. De Morgan's case of Lymphadenoma was read.

Mr. SPENCER WATSON exhibited a specimen of Cystic Epithelioma, of the size of a sixpenny-piece, and of several years' duration, which he had removed from the cheek of a woman.—Mr. WEEDEN COOKE remarked that perhaps the case was one of lupus.

Dr. PAYNE brought forward Cancerous Growths in the Veins and Endocardium. There was a thrombus in the inferior vena cava, adherent and reticulated, but containing small cells and nuclei coloured by means of carmine. The body of the vertebra behind was also affected by cancerous infiltration, and there were deposits in the liver. There were found growths in the endocardium on both sides of the heart. Dr. Payne considered that the occurrence of the endocardial growths, which he thought were cancerous, could not be accounted for on the mechanical theory of dissemination by particles; and he was inclined to be-

lieve that they had occurred by fluid infection of the blood from the focus of the thrombus.—Dr. DOUGLAS POWELL remarked that the growths in the heart were beneath the endocardium.—In answer to Dr. CHURCH, it was stated that the endocardial growths had not been examined microscopically.—Dr. PAYNE said, in answer to Dr. BARNES, that the patient had died of cachexia.—Mr. ARNOTT thought it unnecessary to raise the question of the carriage of cancerous particles, as many cases had occurred where deposits could not have taken place in this way.—Mr. HULKE was unable to see, supposing that a fluid was poured into the veins, why some spots, and not others, should be fixed upon; whereas in the case of solid particles they might be.

Dr. PAYNE exhibited a specimen of Diseased Suprarenal Capsules from a case of Addison's disease. The peculiarity of the case was that, with the exception of very slight discoloration of the skin of the axillæ, the only parts discoloured were the penis and scrotum, the skin of which was almost black. The pia mater on the upper part of the spinal cord was also pigmented. Dr. Payne said, in answer to Dr. CHOLMELEY, that the buccal cavity had not been examined.—Dr. FAGGE referred to some of Dr. Moxon's researches, in which he had found the discoloration in the pia mater.—Dr. GREENHOW believed, from his own experience, that the discoloration of the pia mater was not present in all cases. He had long thought the disease a neurosis, its intermittent character lending much support to this belief. When the paroxysmal attacks come on, the discoloration became worse.—Dr. CAYLEY referred to a case in which patches of buccal discoloration had been present without symptoms of Addison's disease. The patient recovered.—The PRESIDENT remarked that in old persons the skin of the penis and scrotum became very dark.

Dr. CLAPTON exhibited a specimen of Atrophied Cerebellum, taken from the body of a female aged 38. The brain weighed thirty-eight ounces. The cerebellum was hard, except at two healthy bands on the anterior part. There was no evidence in the diseased portion of proper nerve-tissue. Both sides were symmetrical. There was no atrophy of the pedicles. When admitted into St. Thomas's Hospital, the woman's manner was peculiar. She was pregnant. She died suddenly. There was pelvic cellulitis. There was no syphilitic history. The patient had been well up to four years of age, when she was attacked by measles, during convalescence from which the symptoms began. Up to fourteen years of age, she could not feed herself or walk well.—Dr. DICKINSON referred to a case published in the *Transactions*, of atrophy, in which one hemisphere was absent; also to a case related in Magendie's *Physiology*, in which the cerebellum was altogether absent, besides the pons Varolii. This patient had paraplegia. He had also lately seen cases with paralysis of the lower extremities.—Dr. FAGGE had had a patient who died with atrophy, in whom there had been embolism.—Dr. CLAPTON, in answer to Dr. BROADBENT, said that the patient could speak and write after the age of 14; and, in reply to Mr. WILBERFORCE SMITH, that he had not learnt whether the improvement at fourteen was coincident with menstruation.—Mr. HULKE thought that, if the state of the cerebellum were due to atrophy, the skull would not have fallen in again so as to fit in well to the cerebellum, as was stated.

Mr. MARCUS BECK exhibited a Myeloid Tumour of the Head of the Tibia, which was entirely involved in the disease. The joint was, however, free; and the cartilages were unaffected. Mr. Beck read a full account of the microscopical characters of the tumour. The patient was a sailor, thirty-one years of age, who had some time previously received an injury to the part. The limb was amputated.—In answer to the question of return of the disease, raised by the PRESIDENT, Mr. WEEDEN COOKE did not think that myeloid disease generally returned.—Mr. HULKE was of opinion that the more the spindle-cell element was present, the more likely the tumour was to return.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 10TH, 1871.

J. E. ERICHSEN, Esq., Vice-President, in the Chair.

Mr. HENRY LEE read notes of a case of Removal of the Tongue for Cancer. He said that this was a case in which the patient suffered very severe and continued pain. Nearly the whole of the tongue was removed. The symphysis of the jaw was divided, and the tongue was tied in four separate portions. Some elastic thread was then, in addition, passed round its base. The use of this, as explained by Mr. Lee, was to prevent any absorption of matter as the other ligatures became loose. As the part ulcerated, the elastic thread contracted, and thus always remained tight. Some weeks after the operation a piece of bone came away, which was supposed to be a portion of the os hyoides.—Mr. LEE, in answer to Mr. ERICHSEN, said that the silver ligature was employed to connect the jaw.—Mr. CALLENDER referred to the

great relief which followed division of the gustatory nerve in a case of cancer of the tongue. The *écraseur* was now generally adopted at St. Bartholomew's Hospital for excision of the tongue, the symphysis of the jaw being cut through and the mucous membrane torn up.—Mr. WILLETT said that he had operated on a case in this way, but he had also removed a tongue by the knife with little hæmorrhage, and he would have no hesitation in doing so again.—Mr. COOPER FORSTER said that the late Mr. Moore had deservedly given Mr. Hilton the credit of division of the gustatory nerve for relief from the pain of cancer of the tongue. He himself had often practised it with much advantage. He considered the plan recommended by Mr. Lee the same as had been long employed in the treatment of nævus. He disapproved of cutting through the symphysis of the jaw where there was some danger, and when it was unnecessary, and especially when there was doubt whether the tongue should be excised at all. Middeldorff's or other cautery was the best means of removing cancer that was not accessible to other operative measures. The pins were passed underneath the diseased mass, and the wires insinuated about the affected portion. The wires must be kept apart. The bleeding was, as a rule, very great when the knife was used.—Mr. ERICHSEN had found much danger from hæmorrhage in operation for cancer of the tongue by the *écraseur*. The kind of wire, however, was important. Sedillot of Strasbourg, before Syme, had performed excision by cutting in an oblique manner. As to fixing the jaw, Syme recommended drilling, but it was difficult, and could only be done by the Archimedian drill. The arteries could be reached when the symphysis was cut.—Mr. CHRISTOPHER HEATH had tied the lingual artery twice. The operation resulted in relief for a time in both cases, and, he thought, checked the growth in one.—Mr. GASCOYEN believed that there was little gained by operation either as regarded pain or deferring the fatal issue.—Mr. LAWSON was of opinion that patients who had had the tongue excised had less pain.—Mr. ARNOTT remarked that pain had returned soon in many cases where the nerve had been divided. In all cases he had seen some hæmorrhage.—Mr. ERNEST HART thought that affected cervical and submental glands might with advantage be extirpated at the same time as the tongue.—Mr. DE MORGAN observed that for some time he had considered it as well to leave the tongue alone in cases of cancer, but latterly he had found that patients had greater relief and lived longer when the disease was extirpated. They had generally from one to one and a half year's immunity. In one case he had attempted the removal of diseased glands, but found it impossible, so firmly were they connected with surrounding tissue and so near the carotid. He had found great frequency of hæmorrhage with the *écraseur*, but it was not troublesome, neither was it so with the knife. He had found that the galvanic heat had been extinguished by moist tumours. He thought that the plan of passing an *écraseur* beneath the jaw would prove to be a good one.—Mr. HENRY REEVES alluded to the alleged anastomosis of the lingual arteries, and asked Mr. Heath if he had tied both or only one.—Mr. HEATH rejoined that he had tied only one, and remarked that it was doubtful if there was a free anastomosis between the lingual arteries.—Mr. WILLETT made an allusion to the remark of an Indian surgeon, to the effect that removal of the tongue for cancer had been given up in that country, so rapidly did it return.—Mr. HENRY LEE, in reply, observed that the division of the symphysis was necessary in his case, as the disease was very adherent; but when the tongue could be pulled out, it was unnecessary. As to hæmorrhage, it had never occurred with his ligature.

OBSTETRICAL SOCIETY OF LONDON.

MARCH 8TH, 1871.

J. BRAXTON HICKS, M.D., F.R.S., President, in the Chair.

MR. TIMES exhibited a Fœtus the subject of Encephalocele. The child presented by the face, and was stillborn.

THE PRESIDENT exhibited for Mr. D. JOHNSON a specimen of Deformed Fœtus, with the placenta adherent to it, there being no funis.

Dr. WESTMACOTT showed a specimen of Corkscrew Funis.

Dr. GRANVILLE BANTOCK showed the Vaginal Speculum of Professor Neugebauer of Warsaw. It consisted of two parts, the inferior or posterior, and the superior or anterior, exactly similar and introduced separately. Dr. Bantock considered the instrument more generally useful than any other with which he was acquainted, and he exhibited one made for him, which was longer and smaller than the original pattern.

A paper by Drs. BRAXTON HICKS and PHILLIPS was then read, entitled Remarks on Tables of Mortality after Obstetric Operations. It commenced by some general remarks on the subject of statistics, pointing out that to be of any value in medicine it was highly important that

the data upon which they were founded should be reliable. The paper had been suggested by analysing the tables of mortality after operations quoted by obstetrical authors; and its object was to draw attention to the imperfect mode in which these statistics had been drawn up, and to the delusive conclusions to which they consequently led. The plan adopted in the paper was that of tracing back to their original sources a large number of the cases which made up the ordinary tables of mortality recorded by almost every obstetrical writer. This was done in reference to craniotomy, the use of the forceps, and version; and, so far from these operations having a mortality as stated in books, the cases were found to be very few in which the operation could with any show of probability be made accountable for the fatal event. In seeking to discover the relative danger of midwifery operations, it should be clearly borne in mind that they were especially performed to counteract the effects of some one abnormal condition, or of more than one occurring simultaneously or consecutively. Extracts of several of the cases were read; and in reviewing the reports, death could in the great majority be clearly traced to the disease for the alleviation of which the operation was undertaken, or to the lamentable neglect leading to the too long postponement of it. Cases of every degree of complexity had been grouped together in the tables, and many a death attributed to an operation which probably would not have happened had the operation been sooner performed.—Dr. CLEVELAND was willing to admit that the authors had clearly made out a case showing the dangers that were likely to accrue from the use of imperfect statistics, but they had suggested no remedy. He thought that such accuracy of judgment and skill in operating as would insure data for perfectly reliable statistics on a comprehensive basis, were scarcely obtainable.—Dr. PLAYFAIR said that the abstracts of the cases just read showed beyond doubt that the fatal result was in almost all of them to be traced to the unnecessary and culpable delay in resorting to artificial delivery. The whole tendency of modern midwifery seemed to him to show the importance of early interference in suitable cases. The truly scientific practice was not to dread the operation, but to know when and how to resort to it.—Dr. HEYWOOD SMITH thought the paper one of great practical usefulness. He suggested the drawing up of a form for circulation so arranged as to facilitate the more accurate and ready registration of all cases of difficult labour.—Dr. MADGE, in a large midwifery practice during the last sixteen years, had not met with a single maternal death after craniotomy or the use of the forceps. The principle advocated in the paper against delay in employing instrumental or other aid in cases of difficulty should be strongly enforced.—Dr. ROGERS appreciated the labour expended in examining the original cases, and his experience quite agreed with the results deduced, that the great mortality in operative midwifery resulted from delay.—Dr. HICKS and Dr. PHILLIPS replied.

Dr. BRUNTON read the particulars of a case in which the entire Ovum was expelled at the seventh month of gestation, and the child preserved alive, although it must have been born at least fifteen minutes before being taken out of the membranes. Dr. Brunton thought the case supported Sir James Simpson's practice in placenta prævia of extracting the whole placenta before the birth of the child.—Dr. MADGE said that the mere separation of the two layers of decidua—serotina and uterina—did not necessarily give rise to hæmorrhage. The probable explanation of the child being alive was that, as the fœtus *in utero* had somewhat of an aquatic existence, it was still in its own element, and for a while not far removed from intrauterine conditions.—Dr. HEYWOOD SMITH said the child's circulation continued as if it had been still *in utero*, with the substitution merely of aëration by the atmosphere acting directly upon the uterine aspect of the placenta for the maternal blood.—The PRESIDENT agreed with the explanation given by Dr. Heywood Smith, that, as the placenta was exposed to the oxygen of the air, the circulation was kept up. The exposure to cold might at the same time lessen the demand for oxygen.—Dr. WILTSHIRE said the case had medico-legal bearings.—Dr. CLEVELAND had within the last fortnight been called to a lady at full term, whose child and placenta were expelled with scarcely more than a hæmorrhagic stain on the bed-linen.—Dr. GRIGG said the practical lesson from Dr. Brunton's case was to take care, should the placenta be expelled before the birth of the child, to expose its uterine surface to the air.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, MARCH 4TH, 1871.

JAMES STANNUS HUGHES, M.D., President, in the Chair.

Dr. E. H. BENNETT presented portions of bone removed in two cases of Resection of the Elbow-joint. In the first case, that of a man aged 24, disease—the result of an injury—had necessitated the operative proceeding; in the second, the patient being a girl twenty-two or twenty-

three years of age, there was no assignable cause for the occurrence of inflammatory action. In the first instance constitutional symptoms were marked, but there was no pulmonary disease. After removal, the lower end of the humerus was found to have been fractured through the coronoid fossa. Its edge was studded with stalactite projections of bone, and the upper extremity of the radius was softened and broken down. The morbid process was strictly confined to the articulating surfaces of the various bones. The operation was perfectly satisfactory in its results. In the second case, no constitutional disturbance happened; here, too, the disease was confined to the articulation or to its immediate vicinity. There was a remarkable gelatinous degeneration of the synovial membrane of the elbow-joint. This case is still under observation.

Dr. LAW showed the Lungs and Larynx of a man, aged 44, who died of Phthisis Laryngea. The patient was admitted to hospital in a state of extreme emaciation and great prostration. He was all but voiceless. After death, evidences of consolidation of the apices of both lungs, with scattered deposits of tubercle, were observed. But the most striking changes were noticed in connection with the larynx. There was thickening of the arytenoid cartilages, and extensive ulceration of the laryngeal surface of the epiglottis.

Dr. HENRY KENNEDY was, by the kindness of Dr. Nowlan, physician to the North City Dispensary, enabled to illustrate a most unusual effect of a Sequela of Scarlatina, which was of itself by no means of rare character. In the case of a girl, three years old, subsequently to a severe attack of scarlet fever, an abscess had formed under the angle of the right jaw. The collection of matter extended down the neck, and finally spread over the clavicle on to the chest. In process of time the abscess burst, and, through an opening in it, the entire of the right clavicle came away. The bone, with the exception of a small portion of the acromial end which had undergone necrosis, was healthy. The patient made a good recovery, and the movements of the arm were quite unimpaired.

Dr. BENNETT exhibited an example of Pulmonary Aneurism occurring in the course of Phthisis Pulmonalis, which in rupturing had given rise to rapidly fatal hæmoptysis. The tumour was of the size of a hazelnut, of a spherical form, and projected into a large cavity situated near the apex of the lung. The case, would, therefore, belong to the first group of those described by Rasmussen of Copenhagen, viz., where the hæmorrhage proceeded from rupture of a vessel running in the wall of a cavity. (See *Edinburgh Medical Journal* for November and December, 1868.)

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS, IRELAND.

WEDNESDAY, MARCH 15TH, 1871.

WILLIAM STOKES, M.D., D.C.L., F.R.S., in the Chair.

SIR DOMINIC J. CORRIGAN, Bart., M.D., M.P., read a paper on Death-Registration, in which he characterised the entire system at present in force for obtaining mortuary returns, and for deducing from them statistics of mortality, as faulty in the extreme. The form mentioned in Section XLVI of the Act of Parliament (26 Vic., cap. 11), for the Registration of Births and Deaths in Ireland, seemed to the author to be most unsuitable for the purpose. In England the filling up of this form was left to the discretion of the medical attendant, and the result was, that the death-returns in that country were incomplete, and consequently unreliable. In Scotland, the medical man was required to fill up the form under a penalty of forty shillings—a plan which was as unsuccessful in the attaining of the purposes for which the Act was passed, as that just alluded to in the case of England. In Ireland a fine was inflicted on the person not filling up the form as required. But if he did fill it up, and, in doing so, inserted any *false statement*, he was “subject to the same pains and penalties as if he were guilty of perjury”. Sir Dominic held that no man not present till death actually took place could conscientiously fill up the form. In it three things were certified, namely—(a) the day of the patient's death; (b) the cause of his death; and (c) the duration of his disease. Now, the medical attendant was, comparatively, seldom present at the actual time of death. He could not, therefore, in the majority of instances, certify the day on which that event occurred. Again, was the cause of death a primary or an intercurrent affection in a given case? And how long had that affection continued? Circumstances had happened in the author's own experience which should make one cautious in certifying facts on mere hearsay evidence. Thus, in a case of reported death, on going to the house, he had found the patient actually *transacting business*. On another occasion, an attempt was made to defraud an insurance company by throwing back by a few hours the moment of a

patient's decease. Sir Dominic then referred to the old English law, *De Supervisio Corporis*; and to the French system of having a district officer or coroner, who visited the corpse in every instance. In concluding a very able paper, he expressed a hope that ere long a revised Sanitary Code would deal with the whole question of mortuary returns and registration, and that, in the preparation of that code, the various medical bodies would be consulted.—A discussion ensued in which Drs. STEWART, PERCEVAL, A. SMITH, H. KENNEDY, JAMES LITTLE, MACSWINEY, and the Rev. Dr. HAUGHTON, took part. Nearly all the speakers agreed with Sir D. Corrigan as to the unscientific and, therefore, comparatively worthless nature of the form at present in use for death-registration.—Dr. LITTLE mentioned a case of sudden death, the symptoms during life having been those of thoracic aneurism, in which he had that morning refused to sign the form in the absence of a *post mortem* examination.—Dr. HAUGHTON pointed out the faults in the certificate of lunacy, the signing of which he considered should be left exclusively in the hands of experts.

Dr. W. G. SMITH communicated a paper on the Modern Aspect of Therapeutics, being a Thesis for the Degree of Doctor of Medicine in the University of Dublin. After briefly pointing out the many evidences of a wide-spread desire for a more careful study of therapeutics, a sketch was given of the means we at present have at our disposal for meeting disease, and of the gains derived from changes in our theories as to the nature of disease. The important tributes levied from Chemistry and Natural History were enumerated, and some illustrations of the special uses of particular remedies were given. The more extended use of the alkaloids in the room of crude drugs was recommended; and it was stated to be probable that the differences often asserted to exist between the active principle and the original drug are much less than is generally thought. Even in the case of a complex substance like opium, which contains several distinct organic bases, it would be quite possible, after proper investigation, to combine these bases in a compound solution, so as to represent perfectly the action of the crude opium. Organic chemistry and physical science were shown to have exerted, and to be likely to exert, still greater influence over practical medicine; and Dr. Smith adverted to the labours of Bence Jones and Dupré as the pioneers in this line of inquiry, followed up by Broadbent, Richardson, Crum Brown, and Fraser in this country, and by various distinguished observers abroad. The progress of organic synthesis also was shown to have been so rapid and, as it were, cumulative, that we may confidently hope soon to see the alkaloids furnished to commerce by the laboratory of the chemist. Even already, since this paper was written, Schiff had announced the artificial formation of conia. While thus pointing out the advantages to be derived from physical and chemical science, stress was laid on the necessity for a better acquaintance with the curative powers of the organism itself and with the real properties of drugs; and, in conclusion, the value of, and imperative need for, watchful clinical observation were upheld, since clinical researches and empirical decisions must eventually prove the touchstone of therapeutical theory. Owing to the lateness of the hour at which Dr. Smith concluded the reading of his paper, the discussion on the subject of which it treated was postponed to a special meeting to be held on Wednesday, March 29th.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, MARCH 1ST, 1871.

JOHN E. MORGAN, M.D., Vice-President, in the Chair.

Brain of Idiot.—Mr. BRADLEY made some further remarks on the case described by Mr. Clement and himself at last meeting. His remarks had reference principally to the measurement and the appearances on section. He compared it also with the drawings by Professor Marshall of idiotic brains. He thought that the grey matter was paler in colour and less in quantity than usual; but with this exception and the deformity of the cerebellum, the brain might be said to be quite normal.

Horny Excrescence.—Mr. HUNT showed a specimen removed many years ago from the head of a shepherd.

Congenital Cystic Tumour.—Dr. HARDIE showed a case situated in front of the neck of a child four months old. It had been tapped with a fine needle and syringe several times, the contents of one cyst being serous and another gelatinous. It had, however, rapidly increased in size; and, from its interference with respiration and the proper nourishment of the child, the question of treatment was becoming very urgent. It appeared to consist nearly equally of solid and fluid constituents.

Sympathetic Ophthalmia.—Mr. HUNT read a paper comparing Mr. Barton's operation of sinking the eye in this affection with the new operation of enucleation. After referring to the pathological change in the

optic nerves, and describing the mode of performance of the two operations, he said that the former unquestionably left the stump in a much better condition for receiving an artificial eye than the latter did. The question to determine, therefore, was whether enucleation was more successful in preserving useful vision in the other eye than the lesser operation of Mr. Barton. If the sympathetic affection were owing, as it was probable, to inflammation extending from the retina of the injured eye along the optic nerve to the decussation, and so affecting that of the other side, it was evidently of importance that any operation should be undertaken as soon as possible after untoward symptoms had shown themselves. Owing to the intimate relationship of the retina to the hyaloid membrane, Mr. Hunt was of opinion that the evacuation of the vitreous humour must produce as great an effect on the nerve as division of the latter itself, and arrest pathological changes in it, if these had not already extended too far backwards. If this had occurred, he did not think that the mere division of the nerve close to the sclerotic could be of any greater service.

REPORTS AND ANALYSES

IN

MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEWNHAM'S CONDENSED MILK: DUNN AND HEWETT'S COCOA AND MILK.

FEW of the modern applications of science to food-industries have received more favour than the introduction of the new and successful methods of condensing and preserving pure milk. Hitherto, the best known forms of preparation have included the addition of a good deal of sugar at the time of evaporation; and the ordinary forms of condensed milk are largely sweetened. (See analysis, *BRITISH MEDICAL JOURNAL*, January 14th, 1871.) This is not always a disadvantage; but, on the other hand, it frequently is so. The preparation of pure condensed milk without such admixture, capable of good preservation, was an obvious desideratum. It has been filled by Mr. Newnham, whose Harp Brand Condensed Patent Unsweetened Milk is a preparation of the utmost purity and excellence, and one in which the fullest confidence may be reposed.

We noticed lately the extremely palatable and convenient combination of canned cocoa and milk, ready for use at a moment's notice. It is the natural succedaneum of "Liebig"; and we know no preparation likely to attain a larger popularity for ships, camps, ambulances, hunting and shooting expeditions, emigrants' stores, or bachelor-cupboards. Messrs. Dunn and Hewett, who inform us that the combination was first introduced to the public by Mr. Robert Dunn about thirty years since, forward us an excellent sample, in which their own well known and admirable soluble cocoa is combined with Newnham's Mallow Milk. It is perfectly soluble, will keep good in any climate, and from it a cup of unimpeachable milk-cocoa may be procured in a few minutes by adding a little boiling water to two teaspoonfuls of the paste.

ALCOHOLIC SOLUTION OF SULPHUROUS ACID.

WE called attention lately to the power which alcohol possesses of dissolving one hundred volumes of sulphurous acid, which are speedily released by evaporation in the air. The remarkable disinfecting and antiseptic properties of sulphurous acid are well known; and they would be more frequently employed even than they are, but for the inconveniences attending the ordinary method of setting free sulphurous acid by burning with sulphur. We suggested at the time that the saturated solution in alcohol would be an elegant and convenient preparation, for which medical men would find many uses as an antiseptic, disinfectant, and parasiticide. Messrs. Herring and Co., Aldersgate Street, have taken the hint, and have prepared such a solution. With this, articles of clothing, valuable instruments, and delicate materials, may be effectually disinfected by dropping this solution in a measured quantity at the bottom of a closed box in which they are placed. Pathological preparations may be preserved fresh. An antiseptic and wholesome atmosphere may be obtained in a bed or bed-chamber. As a parasiticide, on rag under an impermeable tissue, it will be found

most energetic. The solution has, we believe, a wide range of usefulness; and the intelligent activity of Messrs. Herring and Co. in forthwith producing it deserves recognition.

PHYSIOLOGICAL AND PATHOLOGICAL NOTES.

PARASITIC FUNGI IN THE EAR.—Fungous growths in the ear have been several times observed, and have been described as distinct species. Dr. Karsten has communicated to the Société de Naturalistes de Moscou some observations confirming the conclusions of Hallier and others, that all these fungi vary according to the soil in which they grow and the nutriment they receive, in such a way that forms which have been described as different species or even genera are often merely successive stages in the genetic circle of the same plant.

THE PRODUCTION OF FAT.—Although it has been generally admitted that fatty tissue is nothing more than ordinary connective tissue in which the cells are in some way infiltrated with fat, the precise steps by which the conversion of the one form into the other is effected have always been involved in some degree of obscurity. The latest investigator of this subject, Flemming (*Schultze's Archiv*, vol. vii, part 1), has guarded against several sources of fallacy by making observations on animals artificially fattened, in which, therefore, he could be sure that a positive increase in the fatty tissues was taking place. His conclusions are, that the first production (or deposition) of fat takes place around blood-vessels, and not in cells specially formed for the purpose, as other observers have supposed, but in the already existing fixed corpuscles of the connective tissue. In this he appears to agree with Czajewicz, who, in *Reichert's Archiv* for 1866, described the cells of adipose tissue as originating in the corpuscles of ordinary connective tissue. Previously existing fat-cells appear also to enlarge by the accumulation of fatty molecules within their wall. The fat-containing cells have, at least when the fat first appears in them, no membrane, but are, like their neighbours, the ordinary connective tissue cells, protoplasmic masses. Even perfectly formed fat-cells sometimes, as in amphibia, have no membrane, but the fat is enclosed by a ring of homogeneous protoplasm. Flemming moreover believes that the production of fatty tissue in the embryo proceeds by precisely similar steps; and that the first deposit does not take place, as has been supposed, in particular embryonic cells, but in cells of all kinds, including those of the connective tissue. Observations on fatty tissue in a state of retrograde metamorphosis into connective tissue gave results which were precisely the converse of these. The loss of fat was found to reduce the fat-cells, not to empty bladders or serous cells, but to masses of protoplasm resembling ordinary connective tissue-cells. On the whole, these observations on the physiological processes of fattening and emaciation agree very well with those of pathologists on fatty metamorphosis in tissues, and show that the term *adipose tissue* for fat-containing connective tissue is superfluous. The precise method by which the fat leaves the blood and becomes fixed in cells is more difficult to trace, and must be, for the present, to a great extent a matter of hypothesis. Flemming, however, entirely rejects the notion that it is conveyed along the plasmatic channels, which are the prolongations of connective tissue cells; and does not, indeed, admit in any way the existence of the "plasmatic canal system" in the connective tissue, described by Virchow and his school. He is inclined to think that fat, held in some way in solution in the blood, is effused from the vessels, and precipitated by the connective tissue cells in their substance.

CASE OF PRECOCIOUS DEVELOPMENT.—Dr. A. Menzel, assistant in Dr. Billroth's clinic, records in the *Wiener Medizin. Wochenschr.* for March 18th a case of precocious sexual development. Rosalia A., a child aged 4, of Eggendorf in Lower Austria, was observed by her mother to have enlargement of the breasts soon after birth. This continued; and several surgeons and charlatans were consulted, who advised friction with various materials. In the winter of 1869-70, the growth was at a standstill; but it again continued in the summer, and the mother observed a sanguineous discharge from the genitals, the duration of which, however, was not known. No similar condition had been met with in other members of the family. The child was of the ordinary size for her age; but the mammae were as much developed as in a girl sixteen or eighteen years old. The right breast was rather larger than the left. The areola on each side was slightly pigmented. Hairs about two or three *centimètres* long were sparsely scattered over the mons Veneris and labia majora. The clitoris and labia were little, if at all, enlarged; the hymen was distinct. On examination *per rectum*, a movable body of the size of a nut was felt in the situation of the uterus. The general health of the child was good.

THE Subscriptions to the Association for the year 1871 become due in advance on January 1st. All which are not already paid, should be forwarded to the General Secretary, Mr. T. Watkin Williams, 13, New Hall Street, Birmingham; or to the Secretaries of Branches.

BRITISH MEDICAL JOURNAL.

SATURDAY, APRIL 1ST, 1871.

OUR LUNACY SYSTEMS.

II.

HAVING, we trust, shown that the almost indiscriminate segregation of the insane has been productive of much misconception on the part of the general public as to the true nature of lunacy, and of a divorce of its study from medical science, we now propose to demonstrate that certain influences, pernicious to the alienistic physician, the lunatic, and the ordinary attendant (or keeper) on the insane, have resulted, and how and in what degree these evil influences act and react on the several individuals concerned.

We have no hesitation in stating, most directly and pointedly, that the usefulness of an asylum is in inverse ratio to its size, for the following reasons.

First, the medical authority or authorities have either to perform unprofessional duties to an extent which merges the physician in the administrator, or purely administrative officers are necessary, whose functions are so important as to place them on a practical parity with the theoretical chief. *Imperia in imperiis* arise, cliques and jealousies are unavoidable; and unless the superintendent give in to much, which he within himself deprecates, and shut his eyes to many things which should be steadily regarded, he imperils his own individual comfort and the apparent good working of his establishment. As a rule, in English asylums the medical element is ridiculously weak in point of numbers. From 500 to 1000 lunatics are, or were till very lately, committed to the charge of one superintendent and one assistant-physician. In such vast concerns the mere clerical work is very considerable, not to speak of the keeping of medical records and attention to correspondence. These duties being fulfilled, scant time is left for the study of individual cases. And this brings us to the second, and, perhaps, the strongest, reason against the existence of large asylums, which is, *that the lunatic loses his individuality*.

The most encouraging feature of alienistic medicine of the present day is the strenuous effort which is being made by its students to peer through the thick metaphysical mist which has so long hung over it. The influence of the "positive school" of metaphysics has done much, and will do more, in directing the medical mind to a due attention to the study of physiology, pathology, pathogeny, and etiology, in their relation to diseases implicating the functions of the brain. In order that this truly scientific plan of study should be carried out, it is absolutely necessary that each patient should be individually considered. A careful examination must be made of his physical condition, an accurate note kept day by day of the progress of his case—in fact, his disease must be as studiously watched as that of the patient in the clinical wards of a hospital. The diseases are not less complex in asylums than in infirmaries; but in the latter institutions we find physicians and surgeons in due ratio to their size, numerous residents, and a host of clinical clerks and dressers. Even if such an extensive staff be not absolutely necessary for the proper conduct of the institution or treatment of the patients, still it may be fairly stated that a very large proportion is requisite for these purposes, and equally fairly it can be asserted that the staffs of our large asylums are monstrously inadequate. The immediate consequence of this is, that a routine system of treatment is much more the rule than the exception. Routine management alone is applicable to masses. It is utterly impossible for any one or two men to

compass in one day thoroughly and completely the work entailed on the management of an asylum containing more than 500 inmates. The interest in the individual cannot be maintained, and its loss serves to compromise very materially the hope of his return to the outer world.

The third reason is, that all large institutions for the insane require a rigorous degree of discipline. Now this word *discipline* is one which is very capable of being misapplied. On reference to the dictionary, we find that discipline means "training, or mode of life in accordance with rules; subjection to control; order; severe training; misfortune; punishment". These explanatory terms indicate most vividly the degeneration of the word and the actual sequence of events potential towards its degeneration. The larger the asylum, the more do the managers think it necessary to exercise discipline over the superior officers; the more do the officers deem it proper to maintain a severe discipline over the attendants; the more do the attendants exercise a severe discipline over the patients.

We are told that one of the great calnative influences on the maniac exists in being brought to an asylum. What does this mean? Does not it express a widely diffused popular opinion—an opinion so strong that it impinges even on the mind of the lunatic—that within the walls of the asylum a system exists distasteful to every man, a feeling akin to that of being taken to a prison? It may be an useful and necessary influence; but we take leave to doubt that it is so in the great majority of cases. It certainly cannot be considered a very scientific article of the *Pharmacopæia*. We believe honestly that, as a rule, this influence is humanely applied. But we still adhere to the opinion that the moral treatment so much spoken of is a great deal more physical than it is supposed to be. It simply means the recognition by the patient of a disagreeable condition of inferiority to those not socially superior to him. What really influences his recovery is purely physical—an improved hygienic condition and a certain amount of medical treatment. Where the benefits of moral suasion ought to become apparent, is in the masses of chronic cases which crowd our asylums. How far this is borne out by the experience of any one who has ever walked through the wards of an asylum, we leave to his experience. The inmates who cannot think, sit still; those who can, cry ever and always, like Ralph's raven, "We can't get out, we can't get out"; the only exceptions being those who are emancipated from discipline, and who are allowed to take pretty well their own way—over whom, in fact, "moral suasion" is least exercised.

This term "moral influence" is of the same delusive class as "home-like surroundings", "domesticity", "family character", etc. So-called moral treatment is possible in the treatment of insanity exactly to the same extent as it is in any other disease. Kindly words, encouragements, and *placebos*, are not the least influential agents employed by the general practitioner; and thus far, and no further, can they be employed by the alienist.

We wish it to be fully understood that we do not unreservedly reject, or underrate, physical suasion: it is sometimes an absolute necessity. What we object to is its being called "moral", and in consequence blinding the eyes of everybody, except the lunatic, to the real state of matters.

The fourth reason ought not, perhaps, to be put forth as a distinct proposition. It might be equally well considered as a corollary on the first and third. It is, that out of the difficulties of management and the necessary establishment of rigorous discipline in large asylums, certain traditions have been evolved. The worst of these is, that the lunatic is held to be an inferior being by most who are placed in immediate contact with him, and is consequently subject to many depressing influences. In every asylum, but more especially in a large asylum, the power of the attendants is great. It is a matter of degree, correlative with the size of the institution. In this, asylums do not differ from any other class of institutions in which one man exercises inevitable authority over another. We know that all is not as it should be in workhouses, in hospitals, or in jails. How few are they who have not suffered in the nursery or in the school? It is one of the unhappy qualities of human nature to exaggerate the brief authority committed to it: but the reins of this

authority may be kept in hand, unless the unwieldiness of the vehicle be such as to require too long a team. As the driver may be placed too far from his leaders to make the curb felt, so, as the asylum increases in size, the exercise of authority by its head over his subordinates is proportionately diminished. The bundle of "ribbons" grows too heavy for the hand, and the loss of power over one of those in harness soon communicates itself to the rest. It is the great fault of large asylums that the central authority cannot exercise his influence directly over all, and, as a consequence, attenuation of principle results. Old attendants make systems of their own, and, from their isolated position, become conservative and intolerant of reform. Their immediate supervisors, the assistant-physicians, who are, as a rule, fresh from the hospitals, are apt imbibe their ideas, and consequently to confirm the practice of those whose belief in medical treatment is not seldom confined to soothing draughts, or compound rhubarb powder.

The traditions spoken of consist mainly in the various means adopted by the attendants to repress sudden outbursts of excitement or passion on the part of the patients. It is not many, if any, years ago that the shower-bath was systematically applied to this end. The plan of "downing" a lunatic is not yet unknown. It consists of wrestling with and placing on his back a refractory patient. The many sad fatal accidents which have come to light in late years were, we believe, caused by this mode of restraint. The brutal system of "kneading" a patient's thorax and abdomen with the knees, alleged to exist, has emanated from the mind of the sensational writer. There is no difficulty, to our mind, in tracing all these accidents to struggles—possibly unavoidable under existing traditions—between patients and attendants; but we willingly believe that they are not generally referrible to any intentional desire to do bodily harm. It will be necessary to advert again to tradition. The above are only brought forward as instances.

Diffusion of authority, loss of individuality in all concerned, a necessity for rigorous discipline, and objectionable traditional practice, having originated in the enormous parent institutions for the care of the insane; they have exercised an influence more or less appreciable on younger establishments, inasmuch as the principal members of the staff of the latter have been translated directly from the former.

All asylums are conducted on too exclusive principles. This, however, is much less true of the smaller and more recent ones. A strong liberal feeling is daily gaining ground among asylum-physicians against this monasticism. They are endeavouring, as far as public opinion will allow them, and often in opposition to it, to raise their institutions to the level of county hospitals. The public is invited to visit and inspect; it is asked to take part in the amusements of the patients; high surrounding walls, both moral and physical, are being knocked down, and the working is made patent to the world.

Much has been said of late derogatory to the professional character of asylum-physicians. It must be remembered that they were born into a world of traditions, which originated in the general public. It must be remembered that they have to fight against these—and, furthermore, that they have fought successfully in the cause of reform. The mind of the alienistic physician is, like that of the world in general, advancing in liberality. None know so well as he does the evils of the system under which he works, and none strive more earnestly to modify or abolish it. In a future article, we propose to show how this movement may be accelerated by a more thorough preliminary general education of the medical staff of asylums.

GENESIS AND DEVELOPMENT.

THOSE who were students five-and-twenty years ago have seen great changes in, and a marvellous development of, the natural history sciences. Greatly restricted as to time, and few, in that early epoch, knowing anything of the German language, their knowledge of the highest department of anatomy—embryology—was principally derived from Baly's translation of John Müller's *Physiology of Man*. They had, however, one great privilege—namely, that of hearing Professor Owen's lectures; and, if their guide occasionally led them astray, it was into

paths of pleasantness. Greedily devouring all that Müller gave them through his excellent translator, they were yet unable to see the bearings of embryology, and were in no capacity to become critics of the great transcendentalist who made anatomy easy, and saved, by the finality of his theories, all trouble of further research. "The boiled brains of nineteen" were as impatient of hesitancy or doubt then as now; and an hypothesis must be, to suit the taste of such children in understanding, *totus, teres, atque rotundus*. They do not forget the delightful sense of satisfaction which those *demonstrations* produced. The accomplished lecturer was to them "as a very lively song of one that hath a pleasant voice and can play well on an instrument." Thus, whilst still in their greenness, they became Owenio-Okenians; and as "the light", to use Bacon's words, "doth stream more pleasantly and divinely, as it were, into the minds of the young than of the old," so they did not dream dreams; they saw visions; and the divine archetype and exemplar of the vertebrate skeleton was as well known to them as was any mere material actual skeleton of fish or reptile, bird or beast. It never occurred to them at that time that this light might possibly be earth-born, or have in it something of the nature of an *ignis fatuus*. We all of us ultimately descended from these altitudes, and became wiser, but sadder men. At this time, *species* were absolutely, from their creation, distinct. Then we knew that Nature abhorred to sow her fields with divers kinds of seeds: nothing but monsters could result from the mixture or creatures whose forefathers and foremothers came perfect from the hands of their Maker. As yet, "Protozoa" were not—at least to our apprehension. The sponges were being used as footballs by the botanists and zoologists, although Dr. Robert Grant had clearly discovered their nature. The little vegetables called "Diatoms" stood where Protozoa ought to have been placed; and the large and splendid group of the Foraminifera took their place among the Nautili and Ammonites as Cephalopods. The Infusoria—a large number of them, at least—were a sort of invertebrate ruminating order, with many stomachs, and with the means and appliances of a highly differentiated creature—"organs, dimensions, senses"—enough to satisfy the life-functions of an ox.

How much all this has changed, we need not say. In the course of a few years, a youth arose in our midst, of iconoclastic and giant-killing tendencies—one not of the ruddy type, nor one whose wont it was to choose the smoothest stones from the brook for his daring purposes. To him, more, we are bold to say, than to any other, do we English zoologists owe our present regal standing. In plain words, we have the audacity to say that Professor Huxley's Croonian Lecture, delivered before the Royal Society on June 17th, 1858, was worth more than all the works on transcendental anatomy that had been written from the time when Oken kicked up the deer's skull in the Hartz Forest and called it a *backbone*, up to the date of that lecture. *Development*—that was the new watchword. Study the development of a creature before you prate about it; follow it through all its stages; see it undergo all its metamorphic changes; and then, when you have seen that—not in one, but in many types—you may try and begin a little cautious synthesis. Thus we have, in the boldest thinker amongst us, the most modest and sceptical working man, who grinds his teeth at you if he finds you making hasty generalisations and building up fanciful theories; but one who will watch with you day by day and year by year until you have fathomed the depths of—what?—of a single type of skull. No labour, in his view, is too great, no patience and skill misspent, that will bring out the smallest amount of real truth. This is the sort of task which Bacon set his intellectual children; "for," says he, "that alone is true philosophy which doth faithfully render the very words of the world; and it is written no otherwise than the world doth dictate, it being nothing else but the image or reflection of it, no adding anything of its own, but only iterates and resounds."

Those who now devote themselves to the study of the lower forms of life are beginning to have some clearer conceptions of its "physical basis"; but, as early as 1835, Félix Dujardin, in his *Observations sur les Rhizopodes et les Infusoires*, had laid a good and safe foundation for this kind of research; and his description of "Sarcodé" initiated a new

epoch. The many-chambered calcareous shells which abound in every sea, and largely make up the limestone rocks—the “Foraminifera”—are not Cephalopods, but “Rhizopods”, and lie at the very base of the animal kingdom. This is not an old discovery; yet it is one of the highest importance.

Thus we see that “the extremity of both ends” of the animal series can now be studied philosophically. It is difficult to say which of these widely separated groups—the Vertebrata or the Rhizopoda—yields the stronger evidence in favour of the doctrine of development. Any intermediate group might be taken, and still the evidence would keep increasing and accumulating in favour of this theory. And yet how modern all this is! If we look back only eighteen years, to the ninth edition of Sir Charles Lyell’s *Principles of Geology*, and to that pleasing work, Hugh Miller’s *Footprints of the Creator*, we shall see what an intellectual revolution has taken place in the minds of naturalists. The excellent author of the latter work had scarcely laid down his facile pen, when Mr. Darwin’s work *On the Origin of Species* appeared. Happily, Sir Charles Lyell’s bodily and mental faculties continue unimpaired. As his strength was then, even so is his strength now; and, on the whole, what appears true to Darwin’s mind appears also true to his. Nevertheless, no one—not even Mr. Wallace, who is in science another Darwin—will agree entirely with the theory, making “unconscious selection” do the work—the whole work—of continuous creation. The doctrine of the “survival of the fittest” cannot be stretched to a sufficient size to hold all the facts of organic nature; it has not in it all the elements of a perfect and final theory. If it can explain a tithe of the facts merely, and, beside this, serve to set to work, in the right direction, a host of clear-headed naturalists, it will be found to be of as great service, even as an initial hypothesis, as if it had been created in a perfect form. In the huge forest of Nature, a few paths cleared, and here and there a little field got under cultivation, is in reality an immense advance. Mr. Darwin has already begun to receive sharp criticism even from his own disciples. One of the most notable works having this object is Mr. Mivart’s work *On the Genesis of Species*. We have already referred to this most instructive book, and to attempt even an analysis of it in our limited space would be to do it injury. Popular in the higher sense of the word, this addition to the literature of “development” will be welcomed on all hands, but especially by those who are not willing that our imperfect beginnings of natural knowledge—the *ex parte* ideas of such limited intelligence as ours it—should overturn what has been delivered to us in perfect form concerning things “beyond the reaches of our souls”. The mere headings of the chapters arouse the mind to attentive consideration of the numberless phenomena to be accounted for. “The Incompetency of ‘Natural Selection’ to account for the Incipient Stages of Useful Structures;” “The Coexistence of closely similar Structures of diverse Origin;” “Minute and Gradual Modifications;” “Specific Stability;” “Species and Time;” “Species and Space;” “Homologies;” etc.—here is work for the typical Darwinian! We owe hearty thanks to Mr. Mivart. But, really, he must not hurry us; our hands are very full already. And who is sufficient for all this work? Who can answer all these questions? That glorious quaint old Francis Bacon says somewhere that the Great Father hides things, that his children may find them. There are plenty of things in all sorts of odd holes and corners of Nature not found out yet; so the “children” must go on rummaging. But, as naturalists, we get a rather heavy “straw” to break our backs at last. If our accomplished author will supply us with the oil—oil for a thousand and a thousand nights—we will try to say something on the subjects discussed in the last chapter, on “Theology and Evolution”. Those of us who are singular enough to “stand in the old ways” will find there much that is in harmony with their own convictions. But nearly all these weighty subjects lie outside natural history. We are nevertheless thankful to Mr. Mivart for thus boldly asserting his beliefs; and we believe that numbers more, instead of drifting for ever on a sea of doubt, will sooner or later anchor themselves on somewhat more solid than the mere possi-

bilities—or, to use Dr. Chalmers’s term, the *desiderata*—of natural theology. Amongst us there are many noble minds of the Grecian type; yet they cannot leave their present “estate” exactly in the same intellectual condition as Socrates. They feel sure that they know something more of “that bourne from which no traveller returns”.

Finally, it may be confidently asserted that Science, independently of her own intrinsic value, does exercise a most beneficial influence on cultivated society. In scientific coteries there is, from one aspect and *quâ* science, neither Catholic nor Protestant, neither sceptic nor believer; but all these, in spite of their diverse training and most various mental types, yet “atone together” in these soothing and expanding studies. The driest, keenest sceptic thus often discovers that there are men who “believe in the resurrection of the dead and the life of the world to come,” who yet have clear heads and warm hearts, and in whom, notwithstanding their belief, no trace of fanaticism can be found.

THE INTIMATE PATHOLOGY OF LEUKÆMIA.

It was long ago suggested by Virchow that the preponderance of white cells in the blood of leukæmic persons might be due, not to an excessive production of these cells, but rather to a deficient conversion of them into red corpuscles; supposing what, though not positively demonstrated, is very probable, that red corpuscles are always formed by conversion of the white. This hypothesis received some slight confirmation from the observation in isolated instances, by Eberth and Klebs, of cells in the blood of leukæmic patients, which, being at the same time coloured and nucleated, seemed to represent a form intermediate between the ordinary red and white corpuscles. Such forms are constantly found in the embryonic blood, but only rarely in adults.

The whole theory, however, was somewhat deficient in solid basis, unless it could be shown in what part of the body the transformation of white into coloured blood-cells takes place, whether in the blood itself or in some solid organ. Kölliker long ago pointed out that this could only be known when coloured nucleated cells should be discovered in some particular organ; and in 1869, Professor Neumann of Königsberg published a memoir, in which he indicated this function for a tissue previously little thought of; namely, the red medullary tissue of bones. In this tissue numerous transitional forms were met with, and it seemed probable that, if not the only seat of the manufacture of red blood-corpuscles, it must at least be an important one. Neumann has since then made several additional observations; and this year has made the interesting discovery of the above-mentioned embryonic or transitional forms of blood-cell in the blood of children born at the full time (though the embryonic production of blood has been supposed to cease at the fifth month), and has further seen the same forms in two cases of leukæmia.

Regarding Virchow’s hypothesis above stated, in the light of Neumann’s researches it seems not at all improbable that that little-known structure, the red medulla of bones, may play an important part in the production of the disease leukæmia; and we should urge all those who have such cases under observation to direct special attention to these two points—the occurrence in the blood of transitional forms, that is, coloured nucleated blood-cells, and the condition of the red medullary tissue. The method of investigating the latter tissue is somewhat complicated, and without discussing it here, we would refer to an article in the *Quarterly Journal of Microscopical Science* for January of this year.

DR. THEODORE WILLIAMS has been elected Physician to the Consumption Hospital, Brompton, in the room of Dr. J. Burdon Sanderson, resigned.

THE Weymouth and Dorsetshire Royal Eye Infirmary is to be rebuilt, at a cost (including furniture) of £2,200; the present building being quite inadequate to the requirements.

THE subscriptions for the University of Allahabad amounted by the accounts brought by the last mails to £18,300.

It is stated that Mr. George Biddell Airy will be the next President of the Royal Society.

A DEPUTATION from the Infant Life Protection Society will wait on the President of the Poor-law Board on Friday (this day), at 11 A.M.

THE night of meeting of the Royal Microscopical Society has been changed from the second to the first Wednesday in each month.

THE foundation-stone of the West of England Sanatorium, Weston-super-Mare, is to be laid on Whit-Tuesday, with Masonic honours, by the Earl of Camperdown.—The foundation-stone of the new hospital at Marlborough will be laid on Wednesday in Easter week by the Marchioness of Ailesbury.

WE believe that the Joint Committee of the Social Science and the British Medical Associations on State Medicine will very shortly be summoned to consider the Report of the Royal Sanitary Commission, to resolve what action should be taken in respect to its recommendations, and the disposition of the Government to carry them into effect.

MR. JOHN Gay tied the right subclavian artery on Wednesday at the Great Northern Hospital, for double subclavian aneurism in a man about forty years of age. The artery was tied in the third part of its course, at the outer border of the scalenus anticus muscle. No difficulty whatever occurred during the operation. Amongst the visitors, there were present Mr. Skey (the consulting-surgeon to the hospital), Sir W. Fergusson, Mr. Henry Smith, Mr. Mason, Mr. Savory, Mr. Poland, Dr. C. Smith of New York, and others.

SOME very incorrect statements and utterly absurd comments have been made on the Bill for the Protection of Infant Life, promoted by Mr. Charley, Dr. Playfair, and Dr. Brewer; and we regret to see that our excellent contemporary the *Medical Times and Gazette* has adopted a part of them in what is, we are informed, an extract from a provincial newspaper which it prints hastily as its own composition. They are entirely beneath our contemporary's intelligence, and have apparently been based upon a total misconception of the facts of the case and the provisions of the measure.

UNIVERSITY COLLEGE HOSPITAL.

WE understand that Dr. Charles Squarey has been recommended by the Medical Subcommittee to the Council of University College for the appointment of Assistant Obstetric Physician to the Hospital.

THE WESTMINSTER HOSPITAL.

AT a special general board of the governors, held on March 24th, 1871, Mr. Francis Mason and Mr. Richard Davy were unanimously elected to the respective offices of Surgeon and Assistant-Surgeon to the hospital.

THE LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

PROFESSOR FLOWER brought his interesting course of lectures on the Comparative Anatomy of the Teeth of Mammalia to a close on Wednesday last; and in June next Professor Birkett will commence his course of lectures on the Nature and Treatment of New Growths, on the conclusion of which Mr. Hulke will deliver three lectures on the Minute Anatomy of the Eye.

UNIVERSITY OF LONDON.

AT the next annual meeting of Convocation at the University Building in Burlington Gardens, on Tuesday, May 9th, a list of three persons is to be nominated, in order that it may be submitted to Her Majesty for selection therefrom of a Fellow of the University. We understand that Dr. Parkes will be nominated, as we had already intimated a hope would be the case; and that he will be practically unopposed.

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

AT the Royal College of Surgeons, one hundred and eight candidates for the diploma of membership will undergo their written examination this day (Saturday), and their oral examinations during the ensuing week. On Saturday next, there will also be one hundred and eight candidates. At the pass-examination, candidates will be examined on selected cases from the hospitals.

BREAKFAST TO VOLUNTEER SURGEONS AT BRIGHTON ON EASTER MONDAY.

WE are requested by Mr. J. Cordy Burrows, Surgeon 1st Brigade Sussex Artillery Volunteers, and Principal Medical Officer in charge at the Review on Easter Monday, to say that he will be happy to receive any members of the volunteer medical staff present on the ground, at breakfast in the Pavilion, from 9 to 11 o'clock on that day. As we can safely affirm that Mr. Cordy Burrows' hospitality is unbounded, we can promise volunteer surgeons a most hearty welcome from him now as heretofore.

EXPERIMENTAL PATHOLOGY IN LONDON.

WE understand that Dr. E. Klein of Vienna has been appointed Assistant Professor in the new Laboratory in connection with the Brown Trust for Experimental Pathology, which is about to be erected in London. Dr. Klein has been Professor Stricker's assistant for several years, and has contributed much to that author's *Handbook of Histology*, now being published in English by the New Sydenham Society. By this change, Austria will lose, and this country gain, one of the most promising of young histologists. As an investigator and teacher of the structure of tissues, Dr. Klein has been for several years held in much esteem in Vienna.

MEDICAL ASPECTS OF PAUPERISM.

AT the second annual meeting of the Council of the Society for Organising Charitable Relief, held at Willis's Rooms on March 22nd, the Earl of Derby in the Chair, it was announced that, in consequence of a paper lately read by Mr. Fairlie Clarke, F.R.C.S., on the Medical Aspects of Pauperism, at the meeting of the Metropolitan Counties Branch of the British Medical Association, the Council have appointed a standing Medical Subcommittee, consisting of Dr. Hawksley, Dr. A. P. Stewart, Mr. Clarke, Mr. Curgenven, and Mr. Alsager H. Hill, to keep the Council informed of any opportunities which may offer for giving assistance to the medical charities, and especially to promote the formation of provident dispensaries.

MIDDLE-CLASS LUNATIC ASYLUMS.

IT is asserted by the *Builder* that the gentleman who, it was recently stated, was prepared to expend £30,000 in the erection of a lunatic asylum for the benefit of the lower middle class, is proceeding to carry forward that purpose. The same gentleman is prepared to devote, for public and useful purposes, a sum equal to that given by the late Mr. Peabody, so soon as he can satisfy himself as to the best means of effecting this so as to do the greatest public good, and to avoid the risk of pauperising classes who might not in their present position be eligible recipients, in public opinion, for such a gift.

DISEASE AND DRUNKENNESS.

ACCORDING to the Registrar-General's weekly report, the Liverpool death-rate is 40 per 1000, against 26 in London and Manchester. For reasons already stated, the accuracy of the basis of calculation of the population of Liverpool is impugned, but the mortality of the town is unquestionably fearful; more than every third death was due to some contagious disease. Some notion of the social habits of one section of the population may be formed from the recorded fact, that one day at the police-court ninety inebriates had to answer for their misconduct. One woman aged 33 had been convicted of drunkenness sixty-seven times, and a girl of 17 was fined for a seventh offence.

THE MEDICAL ARRANGEMENTS AT THE BRIGHTON REVIEW.

THE medical arrangements at the Volunteer Review on Easter Monday will present an interesting novelty, arising out of the experience of the late war. The National Aid Society propose, as an experiment, and with the permission of the War Office, to send down to Brighton six ambulance-waggons, with a complete ambulance-corps, composed of gentlemen who served under the Society at the seat of war. The corps will be under the direction of Captain Burgess, Secretary to the Aid Society, and in medical charge of Surgeon Manley, V.C. The War Office has been asked to supply horses and drivers. The proposal has met with favour at the Army Medical Department, and it is not anticipated that any objection will be found at the War Office. As on previous occasions at Brighton, Surgeon J. Cordy Burrows, of the 1st Brigade Sussex Volunteer Artillery, has been appointed by the War Office Principal Medical Officer in charge of the hospital arrangements—an appointment which will meet with general approbation amongst volunteer surgeons. He will have the advantage of being assisted, as last year, by Assistant-Surgeon Mayo, of the 23rd Middlesex (Inns of Court) Volunteers. There will be three temporary hospitals erected on different parts of the field, supplied with all the necessary appliances. The medical arrangements will thus, if the desired permission be granted to the Aid Society, be of a more complete and comprehensive character than on previous occasions; and we are glad to hear that the War Office has shown greater anxiety than hitherto to render them effective. Although we have always warmly advocated the organisation of the volunteer surgeons, the only skilled class of officers in the service, still we think that, meantime, the National Aid Society, by organising an ambulance corps, may afford many opportunities of learning ambulance duty to gentlemen who would offer their services in time of war to the Society.

ENORMOUS TUMOUR OF THE SCROTUM.

OUR Liverpool correspondent writes:—The operations at the Royal Infirmary on Tuesday last included the removal, by Mr. Bickersteth, of a tumour of the scrotum of extraordinary magnitude. The case at the first glance suggested the idea of elephantiasis; but careful examination showed it to be an enormous solid tumour, probably fibro-cellular, distending the scrotum, entirely obliterating the penis, and extending much below the knees. Its estimated weight was about thirty pounds. The testicles were easily traced, one on each side of the growth, and these and the spermatic cords were isolated. The tumour had no connection with the contents of the abdomen. The patient, a tailor, was aged 49, had noticed about nineteen years ago a small hard "lump" of the size of a horse-bean. It had gradually increased, causing much pain and inconvenience. It was still rapidly growing. Mr. Bickersteth first saw the case a few months ago, and recommended its removal, considering that the operation would be uncomplicated and unattended with serious danger. The difficulties arose from the great size of the tumour and the importance of preserving the testicles and spermatic cords intact. After cutting down to the testis and cord, and carefully dissecting them from the diseased mass, the principal vessels were tied *en masse*, and a few bold sweeps of the knife completed the ablation of this enormous mass. The integument formed a very respectable and symmetrical scrotum. Mr. Bickersteth thought that this was one of the largest tumours which had been ever removed either in this or any other country.

THE MURDER AT BROMPTON.

IN the remarkable case of confession of murder at Brompton, the first inferences from the medical evidence have proved highly important. Claude Scott Woolly, quite a youth, was on Tuesday week brought up to the Hammersmith Police Court, charged, on his own confession, with the murder of Samuel Lee, a potman. He told the policeman that he had knocked Lee down with a hammer. He struck him upon the back of the head, and he fell upon his face. He then turned him over, and struck him several times on the neck. He said that the deceased stared so much at him that he could not get the vision out of

his mind night or day, and so he gave himself up. Mr. F. Godrich said he made a *post mortem* examination of the body by direction of the coroner, and produced the notes taken at the time—the 17th of August last. The eyes were widely open; the right pupil somewhat dilated. He was lying in a pool of dried blood. The back of the clothes was more or less covered with blood. In the front, the black trousers were covered with crust similar to that on the floor. On the back of the head, on the left side, was a large comminuted fracture, through which brain-substance was protruding; it implicated the parietal and occipital bones of that side. A portion of the bone, about an inch and a half, was detached, and hung only by the scalp. A number of other portions were detached. He described various other blows on different parts of the head, from which it appeared that every bone of the head was fractured, as well as both nasal bones, the malar and upper jaw-bones. By some of these blows, the bone was beaten in upon the brain. There were two distinct kinds of wounds—one of a rounded and depressed form; the other straight through the integuments, breaking and splintering the bone beneath. This seemed to have been done with a flat rough instrument. He stated, in his opinion, that the blow from behind must have felled him upon the face, and hence the trousers were covered in front with the same refuse which covered the floor; that the other wounds were made after the body had been turned upon the back. He thought that the murder had been committed by something like a lathrender's hammer, one end being rounded, and the other of a cutting character.

CHOLERA AT ST. PETERSBURG.

THE correspondent of the *Standard* writes that cholera has appeared at St. Petersburg in a very virulent form, and that its ravages are not confined to the lower orders. Among many victims in the higher classes of society is Prince George of Oldenburg, a young man twenty-three years of age, nearly related to the Imperial family. But the cases have been more fatal than numerous. The Prince of Oldenburg died seventeen hours after he was attacked, and other cases have terminated fatally in a much shorter space of time. The official bulletin of March 21st is as follows.

	Male.	Female.	Total.
Cases on the 20th March.....	135	96	231
New cases	60	38	98
Cures	1	3	4
Deaths	19	23	42
Cases remaining on the 21st	175	108	283

These returns are below the actual numbers, as they only show the cases in the hospitals; but their publication has contributed somewhat to allay the terror which was becoming general in the town in consequence of the exaggerated reports that had been spread. All necessary measures of precaution have been adopted by the Government, and the regulations of the Sanitary Commission have been published. The nature of the food used during Lent is pointed out as being a very probable cause of the increase of the disease.

THE REPORT OF THE ROYAL SANITARY COMMISSION.

AT a meeting of the Health Section of the Social Science Association on Wednesday, March 29th, Mr. W. H. Michael, Barrister, read a paper on this Report. Our able and accomplished colleague and associate showed that complete mastery of the subject which his long connexion with all the medical and legal aspects of sanitary reform were calculated to afford; and the paper was one of unusual and remarkable power and grasp. Mr. Michael had taken an active part in the work which laid the foundation for the work of the Commission, and in the representations which led to its formation. He subjected the Report to a very severe and searching criticism; he expressed especial disappointment that the great question of boundaries and areas was left still confused and unsettled; he especially objected to the selection of the boards of guardians as the new sanitary authorities, they having failed to carry out the sanitary work already entrusted to them; and declared that to appoint the Poor-law medical officers and sanitary

staff under the proposed *régime* was to degrade sanitary work by connecting it with pauperism and with a machinery of state charity. He declared that the rating difficulties had been left untouched; that the complication of authorities was uncured; and pronounced the whole Report a disastrous failure. The Report was as warmly defended by Mr. F. S. Powell, one of the Commissioners; and Mr. Michael's views were energetically combated by Dr. Rogers, Dr. Stallard, Dr. Druitt, and Dr. Rawlinson. Dr. Farr expressed his opinion that the divergence of opinion between Mr. Michael and the Commissioners was not so great as it appeared, and that, by some further discussion, the way might be smoothed to immediate legislative action. Mr. Michael, with whom Dr. Stewart concurred, said that "prompt" legislation had been the bane of our sanitary code; and that the work of this Commission had utterly failed to produce a basis for sound or effective revision of the law. Lord Shaftesbury, who presided, summed up by a very energetic expression of opinion in favour of the "piece-meal legislation" which had been deprecated, and which he declared, as the result of a long life devoted to public efforts of this kind, to be the sole successful method of obtaining desired reforms. It was not possible to make a *tabula rasa*; it was not possible to resolve a complicated chaos into its first elements and frame a new legislative creation: the work of moulding must be partial and adaptive, rather than destructive of existing bodies.

THE DANGERS OF CHLORAL.

WE regret to notice that, in two cases this week, inquests, held in London on surgeons who died somewhat suddenly, have resulted in verdicts of "death from an overdose of chloral," the sufferers being at the time debilitated and in a state of great pain. It is impossible to suggest a more impressive warning of the dangers which attach to a free use of this potent hypnotic. It is a blessing easily perverted, and is as powerful for harm as for good.

CONVICTION UNDER THE MEDICAL ACT.

ON Thursday last the notorious Du Brange, of Gilbert Street, Oxford Street, was summoned before Mr. Knox, at Marlborough Street, for advertising himself as a member of the Royal College of Surgeons of England. Mr. Straight, instructed by Messrs. Wilde, appeared for the College. Mr. Knox, notwithstanding the earnest appeal of the defendant's solicitor, stated that the prosecution was a most proper one, as any one who read the proceedings of his Court would see; and few felt more strongly on the subject than he did. Looking, therefore, at the great misery brought on the public by this class of men, he fined him the full penalty of £20, regretting he could not make it more; and refused the application of the defendant's solicitor for time to pay, issuing an immediate distress-warrant, or three months' imprisonment.

THE CORONERS' BILL.

WE have great satisfaction in stating that the Coroners' Bill has been withdrawn. We had represented privately to Mr. Chambers that some of its provisions, affecting unjustly and injuriously the interests of Poor-law medical officers, were inequitable and contrary to public policy, and would certainly be opposed by the political influence of the Association. The withdrawal of the Bill is announced to-day, and with it fall all the questions raised by the obnoxious clauses. We may express our obligations to many correspondents who interested themselves by calling our attention to the matter.

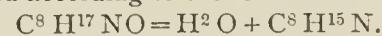
INQUESTS AT ST. PANCRAS.

A PARLIAMENTARY return just issued shows that last year the deaths from all causes in the metropolitan workhouses were 6,684. The number of coroners' inquests held on persons who died in these workhouses was 418, of whom 207 died in St. Pancras Workhouse. In 354 cases *post mortem* examinations were held, and 207 of these were in St. Pancras. The amount of fees paid to medical officers in respect of these inquests was £777, and St. Pancras is credited with £434 14s. of this

sum. There appears to be some excess in the inquests held at St. Pancras, if it be true that during last year inquests were held in every case of death at the Workhouse. We should not be sorry to see a rule to that effect adopted by the House of Commons or the Poor-law Board. In the absence of such a rule it savours of abuse for individuals to create it on their own responsibility. It is this which has, we believe, led to the introduction of the offensive clauses in the Coroners' Bill to which we elsewhere refer.

FIRST SYNTHESIS OF A VEGETABLE ALKALOID.

H. SCHIFF announces to the Berlin Chemical Society that he has succeeded in the synthetical manufacture of coniine, the well known alkaloid present in the *Conium maculatum*. The author obtained the alkaloid alluded to by the distillation of dibutyraldine, from which the alkaloid is generated according to the formula—



Dibutyraldine.

Coniine.

The artificially obtained coniine, like that produced by the plant, is a virulent poison.

SCOTLAND.

CLOSE OF THE MEDICAL SESSION IN GLASGOW.

WE understand that the lectures at the Infirmary will be finished this week; but those at the University will go on till April 5th, the whole classes ceasing before the sacramental fast, which is on the 6th.

THE MORISONIAN LECTURES.

THE concluding Morisonian Lecture was delivered on Friday, in the Hall of the Edinburgh College of Physicians, by Dr. Arthur Mitchell. These lectures have been exceedingly well received, and numerous attended throughout.

EDINBURGH UNIVERSITY: MEDICAL SCHOLARSHIP FOR WOMEN.

THE scholarship, of the value of £50 for three years, offered for competition by Mrs. Garrett Anderson, M.D., and two other ladies, has been gained by Miss Annie Barker, daughter of Dr. Barker of Aldershot. It was awarded according to the results of the preliminary examination in Arts in the University.

THE CONVERSAZIONE OF THE GLASGOW FACULTY OF PHYSICIANS AND SURGEONS.

THE President (Dr. Fleming) and the Fellows of the Faculty of Physicians and Surgeons held a *conversazione* in their Hall, St. Vincent Street, on Wednesday of last week. About three hundred gentlemen were present. A number of microscopic specimens were shown by Dr. John Wilson, and Professor Herschel demonstrated some of Professor Tyndall's experiments on the germ-theory. Amongst the objects exhibited were some interesting antiquarian specimens, drawings, and pharmaceutical preparations. Refreshments were provided in the library. The *conversazione* passed off most successfully.

FEVER AND SMALL-POX IN GLASGOW.

OUR own correspondent writes:—The numbers reported at the beginning of the present week were as follows: total cases, 715: of these, 119 were typhus, 420 relapsing, and 142 small-pox, and 34 undefined. Of these cases, 539 of fever, and 123 of small-pox, were accommodated in the various hospitals. These numbers show a slight tendency to diminish in the numbers both of fever and small-pox. The following extract from a minute of the Health Committee is of interest as to the question of vaccination. "From information derived from Dr. Russell, it was observed that during January and February there were 157 cases of small-pox admitted into Parliamentary Road Hospital. Of these, 69 were unvaccinated, and 19 died—27.5 per cent.; and 88 were vaccinated, of whom 3 died, being 3.4 per cent. Of

these three vaccinated persons who died, all were adult males—one aged 24, with two very imperfect vaccine marks; one aged 27, with one good vaccine mark; and one aged 32, with a distinct but indifferent mark. The vaccination-stations of the Board have now been in operation for two weeks, and during that time 2,015 persons have had their arms, etc., carefully examined. Of these, 310 have been vaccinated—160 being children, and 150 adults, young men and women."

CLOSE OF THE WINTER SESSION IN EDINBURGH.

OUR own correspondent writes:—The winter session of the Edinburgh Medical School closes this week; the Extra-Academical School on Thursday; the University on Friday. For various reasons there will be no public distribution of prizes this year, but each lecturer in the Extra-Academical School will give his own prizes and bid his own farewells in his own class-room. The University has never had any public ceremonial at this time. It has been found of great advantage to the School to have a complete month interposed between the winter and summer sessions, as it allows the students time for their examinations for the degrees and for the corporations. The past session has been a very busy and successful one, the supply of subjects having been more than usually satisfactory.

IRELAND.

THE CHAIR OF NATURAL HISTORY AT BELFAST.

THE President of the Queen's College, Belfast, has submitted to the Irish Government the names of Mr. E. Ray Lankester and Mr. R. Cunningham, for appointment to the vacant Chair of Natural History in the College. The eminent abilities of Mr. Lankester, and his rare combination of the highest qualities for such a position, are well known in all scientific circles: but Dr. Macalister, who fills the Chair of Zoology in Trinity College, was also a candidate, and great dissatisfaction is expressed that he has not been one of the selected. There are, however, questions in which nationality ought not to form an element of judgment; and if Dr. Henry has satisfied himself that Mr. Lankester and Mr. Cunningham are the most suitable candidates for this particular appointment, we should be well satisfied. Probably Dr. Henry bore in mind the favourable reception of a Belfast candidate, Mr. William Mac Cormac, on the recent appointment at St. Thomas's Hospital, when he competed with other hospital surgeons, Englishmen and former pupils of the hospital.

RICHMOND SURGICAL HOSPITAL, DUBLIN.

ON Friday, the 24th ult., Mr. William Stokes delivered a clinical lecture on Plastic Operations about the Face, and exhibited a series of drawings showing the results of plastic operations which he had performed for the removal of deformities resulting from various injuries and diseases in this locality. Special reference was made to the rhinoplastic operation, and to those practised for ectropium; and a remarkable case of double ectropium, resulting from an extensive burn of the face received in childhood, and which he had successfully operated on, was exhibited. The lecturer then dwelt at considerable length on the various operations that are practised for entropium, among which he described those of Crampton, Guthrie, Saunders, Donders, and, lastly, Arlt's modification of Jacobi's operation. The particulars of this latter procedure were entered into minutely; and a case in hospital, that had recently been the subject of this operation, was exhibited, which, Mr. Stokes mentioned, was the thirtieth on which he had operated in this way. The great advantages of this procedure were described as being the preservation of the cilia; the impossibility of the occurrence of any deformity at either angle of the eyelid, as occurs frequently after Crampton's operation; the facility with which it can be performed; and the applicability of the operation to all forms of entropium with trichiasis. The objection that has been made to the operation—as to the liability, namely, of the integumentary bridge perishing

—was answered, and means were pointed out in order to prevent this occurring. The lecturer also mentioned that, in his experience, a return of entropium after this operation was of extremely rare occurrence. One principal reason which he had for dwelling at such length on this operation was that, in his belief, among the poorer classes in Ireland, one of the most fruitful sources of blindness was entropium with trichiasis.

ROYAL COLLEGE OF SURGEONS.

THE following is an abstract of the proceedings of the meeting of the Council on the 21st instant for the consideration of the Draft-scheme for a Conjoint Examining Board.

The Council having formed itself into a Committee, Mr. CHARLES HAWKINS moved, Mr. H. LEE seconded, and it was resolved, that the present Committee affirms anew, and purposes that the Conjoint Board Committee should as far as practicable, adhere to, the resolution of the Council of October 7th, 1869, viz., "That it is the opinion of the Council that there should be instituted a single Examining Board for each division of the United Kingdom, before which every person who desired a licence to practise should appear and by which he should be examined, and that a diploma from either of such Examining Boards should entitle the holder to practise medicine, surgery, and midwifery, in any part of Her Majesty's dominions."

It was moved by Mr. CURLING, seconded by Mr. BUSK, "That an Examining Board be formed for this division of the United Kingdom; that every person desirous of being registered under any of the qualifications granted by the English licensing bodies, as mentioned in Schedule A to the Medical Act of 1858, be required to appear before that Board and be examined on the subjects of professional education; and that full liberty be left to the said licensing bodies to confer as they may think proper their honorary distinctions and degrees."

It was moved as an amendment by Dr. HUMPHRY, seconded by Mr. HILTON, "That it is desirable that an Examining Board should be formed by such licensing bodies as may consent to take part in it, it being understood that each co-operating body shall refrain from the exercise of its previous separate privilege of giving admission to the *Medical Register*." The amendment was carried.

On reading Resolution 2 of the Draft-scheme, it was moved by Mr. SIMON, seconded by Mr. LEE, "That the consideration of clauses II, III, IV, and V, of the Scheme be deferred till the Conference shall have had an opportunity of revising them in the sense of the resolutions which the Committee that day passed."

Whereupon an amendment was proposed by Dr. HUMPHRY, seconded by Mr. HANCOCK, "That the Committee assents to Resolution 2 of the Draft-scheme, provided each of the licensing bodies therein mentioned take part in the constitution of the Board of Examiners." The amendment was carried.

It was then moved by Dr. HUMPHRY, seconded by Mr. SIMON, and resolved, "That it is desirable, in the opinion of the Committee, that each of the examiners in medicine, surgery, and midwifery, shall be a graduate in medicine or surgery of a British University holding the highest degree in medicine or surgery of his University, or a Fellow or Member of one of the Royal Colleges of Physicians, or Fellow of one of the Royal Colleges of Surgeons in the United Kingdom, or that he shall be, or shall have been, a recognised teacher on the subject in which he is appointed to examine."

The other resolutions in the Draft-scheme were deferred for future consideration.

A letter was read from Mr. R. Brudenell Carter, volunteering himself for a seat as examiner, "feeling that the addition to the Board of Examiners of a surgeon engaged in teaching and practising ophthalmic surgery would be a great stimulus to the study of diseases of the eye, and prove of practical utility to the profession and the public". The communication was received with some hilarity, and the Secretary was directed to inform Mr. Carter that his letter had been received.

TESTIMONIAL.—The members of the Leamington Police Force have presented Mr. Marriott, surgeon of that town with a handsome silver salver, bearing the following inscription:—"Presented to Charles Marriott, Esq., M.R.C.S., by the Leamington Police Force, as a mark of their high appreciation of his professional abilities, and for many acts of kindness shown to them during the past twelve years. Leamington, March 1871."

VACCINATION AND SMALL-POX.

VACCINATION AND REVACCINATION.

AN Irish dispensary medical officer of much experience has sent us the following practical remarks.

The question of vaccination and revaccination is one that is attracting considerable attention at the present time; and not without cause, as the present epidemic of small-pox, in England at least, is one of unusual severity. For this reason I venture to obtrude the results of my individual experience on the notice of your numerous readers. On referring to my vaccination registers, I find that I have vaccinated and revaccinated over five thousand individuals; those revaccinated probably numbering about one-tenth of the whole. I know that there are many others of my brother Poor-law medical officers who might go back on much greater experience and much larger numbers than these, and who could probably throw more light on this *vexata questio* than any other practitioners.

When the question is properly threshed out, as it is in process of being now, both in England and Ireland, it will be found that the Poor-law medical officers of Ireland and the public vaccinators in England will be the persons best capable of giving an opinion as to the great value of primary vaccination and how long its influence lasts. With regard to revaccination, the medical officers connected with the army and navy would, if they would give their experience, be most likely to enlighten us on this subject, as the great majority of men entering the services are revaccinated. As to primary vaccination, I think it would be utterly absurd to question its necessity; and with regard to revaccination, from my own experience and that of those most competent to form an opinion on the subject with whom I have spoken, or whose views have obtained publicity, I would certainly revaccinate, or recommend revaccination, to all persons who had not been revaccinated for a period of seven years, provided that their health was good at the time.

Vaccination will not, indeed, give complete immunity from small-pox; but, during the last epidemic of that disease in Ireland, seven years ago, I had more than 100 cases under my care, and I never yet saw a person die of it who had a well-marked vaccination cicatrix, but I have seen a person die who had well-marked small-pox cicatrices. For this reason, I have come to the conclusion that a successful vaccination is as good a preventive against small-pox as a previous attack of small-pox itself.

When is the best time to vaccinate? I have vaccinated at all ages. I generally recommend as soon as possible after two months old; because as children grow older they are more restless, and more likely to scratch their arms, which in both young children and adults is one of the principal causes of sore arms. I was once called to see a woman who had been confined the night before. While there, I discovered that another of her children was in bed in the same room, and had small-pox. He had been vaccinated, and the disease was (consequently, I would say) very mild. I immediately vaccinated the infant; the vaccination was successful. It took small-pox also, but, the vaccination having the start, the small-pox was very mild; one or two pustules alone appearing. The child is now a fine little girl, and her mother insisted on her being revaccinated lately. This was done with good result. Several cases similar to this have occurred in my practice, though not in such young children; and I am inclined to agree with those who say that, in a person successfully vaccinated on the day which he is exposed to small-pox, the vaccination will outstrip the variola, and so modify it that the most favourable results may be anticipated.

A great deal has been said about erysipelas, sore arms, and so forth, after revaccination. I have seen all these in children, both in primary vaccinations and in revaccinations; but they are the exceptions, and for obvious reasons are more likely to occur amongst adults, who are of course more exposed to external violence and constitutional disturbance than children, and who are more likely to bring the nature of the case before the notice of the public and the profession. I have often remarked that it is from surgeons and physicians who perhaps have vaccinated but very few persons in their lives who say they have seen such results attendant on revaccination; the fact being, that the half-dozen bad arms that arose after revaccination in unhealthy persons filtered through the crowd of the revaccinated until they accidentally came before their notice in hospital or otherwise, whereas nothing was heard of the thousand and one who were revaccinated without any bad results. As to the real advantage of revaccination, I will mention one case that came under my notice. I was once called in to attend the family of a relative of mine. They were all grown up, and at the time there were

several visitors at the house. My professional attendance was required for one of the sons, a lad aged 19. I immediately pronounced the case to be one of small-pox; he had been vaccinated, and it was modified. I recommended immediate revaccination for every other member of the household. They all agreed, with the exception of the mistress of the house, and I revaccinated them forthwith. Although they were almost all equally exposed to the influence of the disease, not one took it, with the exception of the lady who refused to be revaccinated. Having been vaccinated before, however, her case, though tedious and troublesome, was also modified, and she recovered without having more than three or four marks on her face. I then revaccinated myself and every member of my own family over seven years of age without the slightest bad result. Having revaccinated over five hundred individuals without, I can conscientiously add, any worse results to themselves than slight inconvenience, I believe that revaccination is desirable, and is also necessary when an epidemic is present or the individual is exposed to small-pox. The reports of the nurses of the London Small-pox Hospital appear to me to prove this conclusively. I do not think that it is clearly established that vaccination wears out; but I have myself taken, and I always give my patients, the benefit of the doubt, and revaccinate, of course taking into consideration the health of the individual at the time. In fact, it is not altogether optional with us in Ireland to revaccinate, for in Article 21 of the general rules for the Government of dispensary districts, under the head of "Duties of medical officers, section 8", it says: "He shall vaccinate all persons who may come to him for that purpose"; and a form is provided for those born before 1864. Still we do not vaccinate persons in a bad state of health; and I do not think that the Commissioners would insist on the literal acceptance of the section. As to the mode of vaccination, I believe two insertions to be sufficient; they have much less chance of being rubbed or scratched than a greater number. Vaccination has been performed on the leg, wrist, in the neighbourhood of the axilla, and other places; but the natural hollow in the arm at the insertion of the deltoid I think the best place. The two insertions I make one above the other, about an inch apart. When they are made horizontally, that on the outer surface of the arm is liable to be lain upon, and so injured. Vaccination should be performed on the arm which is not habitually lain upon, or the arm which is held outermost by the mother or nurse. The lancet should be kept scrupulously clean, and not used for any other purpose. The less blood drawn, the better. The scratches should be made horizontally, with the point of the lancet directed downwards, which gives them a sort of valvular effect. With regard to the storage of vaccine lymph, I have tried Husband's capillary tubes, glass plates, and ivory points, and I have no hesitation in saying that the ivory points are the best. Perhaps for a long voyage or in a tropical regions the capillary tubes might be better, but of this I have no experience. The capillary tubes are troublesome to fill, and, unless carefully manipulated, the lymph will be boiled in the sealing. Although our Poor-law Commissioners are strongly in favour of them, I do not think that they are as good as ivory points, and, as a rule, we do not use them.

The foregoing remarks are merely the result of my individual experience, and do not contain anything new; but I have observed, in reading many reports which have appeared in the papers, both lay and medical, remarks which in my estimation exhibited a want of knowledge both of vaccination and of revaccination.

SMALL-POX AT CROYDON.

THE Croydon Board of Guardians, at their meeting on the 13th instant, resolved to appoint a medical officer to attend specially on the small-pox patients in the parish of Croydon and in the Small-pox Hospital of the town. The object of this arrangement is to avoid the risk of conveyance of infection by the other Poor-law medical officers of the union.

IS ONE REVACCINATION A PERMANENT PROTECTION AGAINST SMALL-POX?

MR. M. A. WOOD of Ledbury writes on this question as follows.

I have been expecting to see in the columns of this JOURNAL some notice taken of the statement of the Medical Officer of the Privy Council, that "revaccination once properly and successfully performed does not appear ever to require repetition". If this conclusion be not founded on sufficient evidence, it is due to the profession and also to the public (who will use it as an excuse for their not being revaccinated a second time) that it should not pass unchallenged. Is it reasonable to suppose that an immunity that can be lost once cannot be lost a second time? We know that in some eruptive fevers, and in small-pox itself, the disease does sometimes occur in the same individual more than

twice; and the experience of medical men must, I think, have shown that revaccination can be successfully performed more than once. The ground of Mr. Simon's argument seems to be that all the nurses and servants that have been attached to the Small-pox Hospital during the last thirty-four years, and who were properly revaccinated before their admission, but not since, have without exception escaped taking small-pox. This striking fact appears at first sight to justify the conclusion drawn from it, but I think it may be otherwise accounted for. It is easy, of course, to understand that, if the nurses and servants were properly revaccinated before entering the institution, they would be at the time perfectly protected against small-pox. In proportion, however, as the immunity thus afforded by the vaccine virus is wearing itself out, so, *pari passu*, the small-pox virus from such a constantly infected atmosphere is supplying its place, but in such infinitesimal quantities that no characteristic symptoms are developed, and it thus becomes its own protective agent. If this explanation be correct, it is easy to see that the assertion of Mr. Simon, founded on this experience alone, cannot be received as proved.

I may mention here a theory bearing on the subject, which I dare say is possessed by many others besides myself, that the reason why men of our profession are proverbially insusceptible of fevers is, that they are in the habit of imbibing from time to time small quantities of any particular fever-poison, not sufficient to produce an attack of fever, but giving rise, perhaps, to temporary headache, sore throat, or other slight symptom; this gradually renders the system incapable of multiplying the fever-poison, the capacity for it being exhausted, just as one attack of one eruptive fever gives considerable immunity from another.

DISCUSSION IN THE SURGICAL SOCIETY OF IRELAND.

At a meeting of the Surgical Society of Ireland, on Friday, March 24th, Albert J. Walsh, Esq., President, in the Chair, Dr. CHARLES F. MOORE read a paper on Vaccination and Revaccination. The author, in performing the primary operation, preferred two sets of very slight incisions, or rather scratches made with a sharp lancet. Lymph might best be obtained from a healthy infant aged between three and six months. In cases where it was deemed inadvisable to puncture the lymph vesicles, removal of the thin crusts or scabs generally formed in the line of the incisions would usually afford abundance of lymph. If variola were epidemic, Dr. Moore was in favour of vaccinating infants of very tender age, even those but a fortnight old. Though primary vaccination was almost universally performed in Ireland, yet immigration from England was constantly introducing a number of unvaccinated persons into this country. Instances of the importation of small-pox in the same way by isolated individuals during the present epidemic were alluded to. Among these was the case of a girl, E. C., who, seventeen days after leaving London, was seen by Dr. Moore in incipient variola. She was at once sent to Hospital, where, in six days, she succumbed to the disease. This, it may be mentioned, has been the only instance in which small-pox has terminated fatally in Dublin since the outbreak of the present epidemic. The experiences of various Small-pox Hospitals in London, of the Public Services, and of numerous private medical authorities were quoted, as showing the protection to life afforded by vaccination, and the existence at present of an unusual susceptibility to vaccinia. Aware that some, whose opinion he respected, considered the primary operation sufficient, Dr. Moore was yet constrained to regard revaccination as most useful, especially in times of a variolous epidemic. In the cases he had met with, any tendency to excessive inflammation had been successfully combated by the adoption of ordinary precautions against rubbing or other irritation. The remarkable exemption from small-pox enjoyed by the Army, the Navy, and the Customs Department must be looked upon as in great measure due to the general practice in those services of revaccination. No doubt, as was demonstrated by drawings made by the author and exhibited to the meeting, in the second operation an earlier maturation of the vesicles occurred as compared with primary vaccination, yet this did not militate against the advantages of that second operation. In cases where only one set of incisions takes after primary vaccination, Dr. Moore was in the habit of performing auto-revaccination. He concluded by expressing himself as entirely in favour of the second operation.—Mr. TUFNELL brought forward a *résumé* of nearly 1,000 cases of revaccination, 90 of which had been performed at the Military Hospital at Kilmainham. The remainder were collected from various military authorities. In none of these 1,000 cases did any ill result follow the operation, and in many of them the vesicles were as perfectly formed as if they had been primary cases. In his experience, even the severity of prison drill had had no injurious effect upon the revaccinated.—Dr. CRONYN expressed himself as opposed to the second operation, on the ground that, in his experience, ill effects often were its

direct consequence. Further, he had not seen a perfect vaccine vesicle after it.—Dr. MCCLINTOCK had not seen injury done by revaccination. He thought the question as to the duration of the protective influence of primary vaccination one of great importance. The occurrence of a perfect revaccination vesicle surely warranted the conclusion that the individual was susceptible to an attack of variola. At the same time he believed that if the operation were once *well* performed it was unnecessary to repeat it.—Dr. DARBY did not approve of revaccination, inasmuch as he had seen severe ill-consequences result from it, and as the lymph derived from it was, in his opinion, useless.—Mr. MADDEN, Surgeon-Major, said that of 1200 cases of revaccination which he had performed among the troops under his care, none had had to be sent to hospital, or even to leave off drill for a single day.—Dr. ATTHILL considered that the efficacy of revaccination had been established beyond all dispute by the recent stamping out of an outbreak of variola in St. George's Hospital. He did not think that a good mark insured protection more than an ill-defined one.—Dr. ROBINSON had never seen variola in a revaccinated individual.—Mr. CROLY spoke in support of the second operation. In his opinion, the inflammation which occasionally followed revaccination was merely accidental, and, as such, comparable to the ill effects that in certain instances are apt to follow the infliction of ever so trivial a wound.—Mr. WHITE did not approve of a repetition of the operation, and he had never yet revaccinated an individual.—Dr. FREDERICK ROBINSON, Surgeon Scots Fusilier Guards, stated that the men joining his regiment were invariably revaccinated, and that, though in London they had been more exposed to the contagion of small-pox than most troops, the cases of the disease among them were extremely few. Idiosyncrasy may outweigh even revaccination. The officers had all lately been revaccinated, and scarcely one had suffered from the operation.—Dr. THOMAS BEATTY had had an average of 60 primary vaccinations in private practice annually for the last forty years. He had never heard of any of these having been attacked by variola subsequently. He approved of revaccination as a matter of expediency, but did not regard it as necessary. The age most suitable for its performance was 20 years.—Dr. CHURCHILL, from an experience extending over thirty-nine years, and based upon 2000 cases under his own observation, agreed with Dr. Beatty's views on the subject. He believed the question, whether liability to the poison of variola had necessarily existed before revaccination in a given case, to be still unanswered.—Dr. EVERY KENNEDY asserted that it was only the result of accumulated observations which could lead to a reliable opinion. Vaccination afforded but a partial protection against the variolous poison. This protective influence wore out in time, but could be renewed. He confirmed Dr. Atthill's observations respecting St. George's Hospital by adducing a similar group of circumstances, and he expressed himself altogether in favour of revaccination where there was exposure to the contagion of variola. The debate was then adjourned, and the meeting separated.

VACCINATION.

SIR,—A public vaccinator asks, what are the powers of public vaccinators as to taking lymph from healthy children? Your reply that there is no legal power to compel this, is undoubtedly correct, but your fear that parents may make this portion of the Act a dead letter, is, I think, groundless. With the experience of many years, vaccinating more than a thousand children yearly, I have never met with any serious difficulty or obstruction in that direction. I should regret any attempt to enforce submission by law, to a proceeding which in my judgment can be effected more agreeably, more satisfactorily, and, I believe, also with much greater facility by tact, kind persuasion, and a judicious explanation of the object, than by any legal enactment.

If Dr. Woodward desires confirmatory evidence of the manifest advantage of the concentration of public vaccination, he will find ample proof in the reports issued by the Medical Officer of the Privy Council; the history of the public vaccination of this country has placed the question beyond controversy. I have recently experienced the inconveniences of subdivision at my own station, where, during the small-pox panic and revaccination mania, it was necessary to vaccinate twice a week instead of once; so long as the numbers applying were double the usual average, all went on well, but when the pressure subsided and the numbers fell to the ordinary rate, I have been obliged to return to one day a week, in order to secure a proper selection of lymph.

March 25th, 1871.

I am, etc.,
A. B. STEELE,
Member of the National Vaccine Establishment.

USING AN OPPORTUNITY.

At a recent meeting of the Croydon Local Board of Health, when the report of the Sanitary Committee was brought up, Dr. Carpenter took the opportunity of addressing the Board—and through them the public—on small-pox and vaccination. He commented especially on an article in the *City Press*, in which the value of vaccination was disparaged, a statement being made that it appeared no longer to be the safeguard that it had been. In refutation of this, Dr. Carpenter adduced the instances of the medical staff and nurses of St. George's Hospital, and of the staff of the London Small-pox Hospital; as well

as the effects of small-pox among vaccinated and non-vaccinated persons in Croydon. Other popular objections against vaccination were also confuted. Dr. Carpenter has done good service in thus contributing towards the enlightenment of the public in a matter regarding which they are too liable to be misled by obstinate stupidity. We are glad to see his remarks printed at length in a local paper.

SPECIAL CORRESPONDENCE.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Unveiling of the Portrait of Skoda.

THIS morning, at eleven o'clock, the portrait of Professor Skoda was unveiled in the lecture-room adjoining his clinical wards. The professors, students, many physicians, and the members of the Academy of Sciences (all in full dress) took part in the ceremony, which was very simple, but imposing. Professor Dlahy—Skoda's oldest friend—delivered a short congratulatory speech, after which the portrait of the retiring professor was unveiled. The picture is a life-size one, and represents Skoda standing with his right hand in his pocket, as he usually keeps it while he is lecturing. As a likeness, it is extremely good, fully impressing one with the idea that one is looking on the real and peculiarly striking features of Skoda, and might expect to hear him begin his lecture over the patient. It is the work of Gustav Gaul, one of the most famous Austrian artists now living.

Immediately after this ceremony, deputations of numerous societies met at the house of Skoda, to present him with their various addresses. Here Professor Hebra delivered a highly characteristic speech, which was much applauded, introducing at the same time, side by side, the different deputations. These were: from the Academy of Sciences, speaker, Professor Arnetz; from the Professor's College, speaker, Dr. Braun; from the College of Physicians of Vienna, speaker, Dr. Schlesinger; from the Society of Physicians, speaker, Professor Rokitsky; from the Medical Club, speaker, Professor Benedikt; from the medical staff of the General Hospital, speaker, Dr. Hofmann; from the Wiedner Hospital, speaker, Dr. Dinstel; from the Rudolf Hospital, speaker, Dr. Böhm; a deputation from the Royal Society of Physicians of Pesth, speaker, Prof. Lumniczer; and a deputation from Franzensbad, which presented the professor with the freedom of their city.

Skoda was so much affected that he could scarcely speak, and declared himself totally unable to reply to the various allusions made by Hebra, or to thank him for the numerous compliments paid to him. He was, he said, really astonished to find himself inundated by so much love and honour. He thanked all in simple words, saying that the credit of having raised the Vienna Medical School to its present position belonged only in a very small part to himself; that the larger part belonged to Rokitsky, to many other scientific men who were now amongst those around him, and to others now dead. He also detailed the reasons which induced him to retire. He said that he could now no longer participate in the progress of medical science, because his failing sight prevented him from reading; and that a man who could not follow the advances of science "was not worthy of being a professor."

Vienna, March 25th, 1871.

THE POOR-LAW MEDICAL SERVICE

OF GREAT BRITAIN.

THE CORONERS' BILL.

At a meeting of the Poor-law Medical Officers' Association on Tuesday, a resolution was unanimously passed, condemning clause vii of the Coroners' Bill, introduced by Mr. Goldney, M.P., and Mr. Thomas Chambers, M.P. This clause was framed to deprive Poor-law Medical Officers of Workhouses of their fees for making *post mortem* examinations and attending coroners' inquests to give scientific evidence. As the Bill has since been withdrawn, we will only remark that the clause would have, if passed, inflicted a palpable injustice on the Poor-law medical service, while, at the same time, it carried with it the latent means of suppressing inquests in our Poor-law establishments.

VACANCIES.

ALNWICK UNION, Northumberland—Medical Officer for the Workhouse, and Medical Officers and Public Vaccinators for the Alnwick and Lesbury Districts. AYSGARTH UNION, Yorkshire—Medical Officer and Public Vaccinator for the Askrigg District.

CREDITON UNION, Devonshire—Medical Officers for the Bow and Colebrook Districts.

GLENMUICH, Aberdeenshire—Parochial Medical Officer.

HENLEY UNION, Oxfordshire—Medical Officer for the Nettlebed District.

LANGPORT UNION, Somersetshire—Medical Officer for the Workhouse.

ORMSKIRK UNION, Lancashire—Medical Officer for District No. 4.

WOBURN UNION, Bedfordshire—Medical Officer for the Toddington District.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

WE are happy to find that our recent comments on the injustice of the law affecting Irish Poor-law medical officers in respect to the certification of dangerous lunatics is likely to be followed by action arising out of those comments in the sense there indicated. The action to be taken by the Irish Poor-law Medical Officers' Association will, we are happy to find, be aided by that of the English Association at the proper time. The Parliamentary Committee of the British Medical Association will bring its influence to bear in the same direction.

GRATUITOUS PSYCHOLOGY.

IN Ireland, the dispensary medical officer is called upon to certify to lunatics without "fee or reward". The performance of this duty is always attended with considerable trouble and loss of time; and not infrequently the medical officer has to pay money out of his own pocket for travelling expenses. The English Poor-law Medical Officers' Association have drawn up a petition, which will be presented to Parliament, praying that this grievance of their Irish brethren may be redressed. It is satisfactory to know that several eminent members of Parliament have expressed their intention of supporting the petition. It is not a little remarkable that, when medicine impinges on law, lawgivers should so frequently take the occasion for attempting to despoil the profession of medicine of its legitimate rewards.

VACANCIES.

CAHERCIVEEN UNION, co. Kerry—Medical Officer for the Emlagh Dispensary District.

CALLAN UNION, co. Kilkenny—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Kilmoganny Dispensary District.

WESTPORT UNION, co. Mayo—Medical Officer for the Islandeady, Westport, and Louisburgh Dispensary Districts.

ASSOCIATION INTELLIGENCE.

BATH AND BRISTOL BRANCH.

THE fifth ordinary meeting of this Branch will be held at the Royal Hotel, College Green, Bristol, on Thursday, April 13th, at 7 P.M.; CHARLES BLEECK, Esq., President, in the Chair.

Papers are promised by Dr. E. L. Fox, Dr. W. Budd, Mr. Leonard, Mr. Tibbits, and Mr. Dowson.

R. S. FOWLER, } *Honorary Secretaries.*
E. C. BOARD, }

Bristol, March 29th, 1871.

METROPOLITAN COUNTIES BRANCH.

AN ordinary meeting of this Branch will be held at the rooms of the Medical Society of London, 32A, George Street, Hanover Square, on Friday, April 21st, at 8 P.M.; when Dr. E. C. SEATON will open a discussion on Some of the Lessons to be derived from the present Epidemic of Small-pox.

A. P. STEWART, M.D. } *Honorary Secretaries.*
ALEXANDER HENRY, M.D. }

London, March 29th, 1871.

CUMBERLAND AND WESTMORLAND BRANCH.

THE spring meeting of the above Branch will be held at Kendal, on Wednesday, May 3rd, 1871. THOMAS F. PANSON, M.D., President in the Chair.

Gentlemen intending to be present, or to read papers, are requested to communicate with the Secretary without delay.

HENRY BARNES, M.D., *Honorary Secretary.*

Carlisle, March 29th, 1871.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT MEDICAL MEETINGS.

A MEETING of the members of the above district will be held at the Steyne Hotel, Worthing, on Tuesday, April 18th, at 4.15 P.M. H. COLLET, M.D., in the Chair.

Dinner will be provided at 5.45 P.M. precisely. Charge, 5s., exclusive of wine.

All members of the South-Eastern Branch are entitled to attend, and to introduce friends.

Gentlemen who wish to make communications at the meeting, are requested to inform me *at once*, in order that a notice thereof may be included in the circular convening the meeting.

WM. J. HARRIS, *Honorary Secretary*.

13, Marine Parade, Worthing, March 20th, 1871.

SOUTH-EASTERN BRANCH: EAST-SUSSEX DISTRICT MEETING.

A MEETING of the members of the East-Sussex district was held at the Sussex Hotel, Tunbridge Wells, on Wednesday, March 8th, at 2.30 P.M.; CHARLES TRUSTRAM, Esq., in the Chair. There were present twenty-two members and friends.

New Members.—Dr. Hall and Dr. Bagshawe, both of St. Leonard's, members of the Association, were nominated as members of the district; and Mr. Gargong (Pembury) as a new member of the Association.

Next Meeting.—It was proposed by Mr. R. TURNER (Lewes), and seconded by Dr. HARLAND (Wadhurst) that the next meeting in May be held at Uckfield, and that Mr. H. Holman, sen., of East Hothly, be requested to take the chair on that occasion.

Papers.—1. Dr. WARDELL (Tunbridge Wells) read a paper on Pleuritic Effusion. He advocated the external use of iodine, and gave many cases in which it had been used with marked effect in procuring absorption.

2. Dr. JOYCE (Rolvenden) read a paper on Diphtheria, and related several cases which had been under his care.

3. Mr. MARSACK (Tunbridge Wells) exhibited an interesting case of Exostosis, which could be seen and felt behind the clavicle, coming from the first rib, in a young woman about 20 years old.

Time would not permit the Chairman relating two cases of Hernia which he had promised.

Dinner.—Nineteen members dined together afterwards at the Sussex Hotel.

SOUTH-EASTERN BRANCH: EAST-KENT DISTRICT.

THE thirty-ninth meeting of this Society was held at Folkestone on March 16th; Dr. BOWLES occupied the chair, and there were present twelve members and one visitor.

Communications.—Mr. OSBORN (Dover) read a case of Ruptured Uterus.—Dr. BOWLES related a case of *Post Partum* Hæmorrhage, followed by death, in a lady aged 35. It was the sixth pregnancy. Solutions of perchloride of iron with water, injected into the uterus, controlled the hæmorrhage, but the patient died, wildly shrieking, within an hour afterwards.—Mr. BATEMAN (Folkestone) read an account of a case of Placenta Prævia occurring in a sixth pregnancy. It was followed by puerperal mania, from which the patient recovered after seven months' residence in an asylum. She had previously suffered from puerperal mania after her fifth labour.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Tuesday, March 28th.

REPORT OF THE SANITARY COMMISSION.—Mr. Gladstone, replying to Sir C. Adderley, said that the Local Taxation Bill and the Local Government Bill would contain provisions by which the Government hoped to deal with the report of the Sanitary Commission.

THE COMMISSION ON THE POOR-LAW IN LONDON.—Mr. W. H. Smith, in reply to Mr. Fawcett, stated that he had deferred fixing a day for moving for a Commission of Inquiry into the operation of the Poor-laws in London, until the new President, Mr. Stansfeld, was more thoroughly prepared to deal with the subject.

Wednesday, March 29th.

THE CORONERS' BILL was withdrawn by Mr. Goldney.

CORRESPONDENCE.

ROYAL SANITARY COMMISSION.

SIR,—I have no fault to find with the very accurate report of my remarks at the meeting of the Metropolitan Counties Branch meeting on the 3rd instant, except the omission of my opening statement, on which I laid special emphasis, that "my share in the origination of the Royal Sanitary Commission was quite a subordinate and secondary one, and that but for the invaluable services of Dr. Rumsey, Dr. Acland, and Dr. Farr, the practical results of the efforts of the Joint Committee would have been small indeed". The truth is, that beyond a considerable amount of laborious correspondence, such as falls to the lot of every secretary, and costs that useful but humble class of workers many sleepless nights, with very little to show for all their toil, I can claim credit for nothing but making the rough draft of the "memorial" which was presented to Her Majesty's ministers, and compiling, with the help of Dr. Rumsey, Mr. Clode, and Mr. Michael, a series of questions, of which no use has yet been made, but which would, I believe, have elicited much fuller and more trustworthy information than any which could be hoped for from the not unfrequently obscure and fragmentary schedules of the Commission.

But, long before I had commenced my humble labours, Dr. Rumsey had completed and put in circulation his elaborate and very able "memorandum", and had enlisted in our favour several members of Parliament, and specially Mr. George Clive, whose judicious counsel and official experience were of much value to us. *Suum cuique.*

I am, etc.,

A. P. STEWART.

Grosvenor Street, March 27th, 1871.

THE SUBCUTANEOUS DIVISION OF THE NECK OF THE THIGH-BONE.

SIR,—I did not press my argument in my last letter to its legitimate conclusions; first, because I hoped it might not be necessary to do so; and secondly, because, if necessary, I desired to illustrate my meaning with the aid of diagrams.

Fig. 1 is taken from the specimen III, to which I referred in my last letter. It shows a portion of the right side of the pelvis, as seen from



behind, the pelvis being held in its normal position, with bony ankylosis of the hip-joint, and the femur directed upwards and forwards. This specimen represents a somewhat similar deformity to that on which I operated at Brighton in 1861, and the line *a c* shows the line of section of the neck of the thigh-bone as it was then performed. Thus it will

be seen that at a certain point the direction of the saw was changed, and was made to follow the line *a b*, for the bone could not otherwise have been cut through, any more than the specimen to which I now refer could otherwise be cut through. But it is obvious that the external incision must be sufficiently long between *b c* to allow this change in the direction of the saw to be made. In my case it required that this incision should be two and a half inches in length. It is equally obvious that if the external incision be made between *b c*, the section *a c* must be subcutaneous. This was the operation which I planned, and of which I gave the description before the Royal Medical and Chirurgical Society.

Fig. 2 is an exact copy of diagram No. 2, in Mr. Adams' communication to the Association in the JOURNAL of December 24th, 1870. The following description accompanies it: "Upper portion of thigh-bone. Situation and direction of subcutaneous division of neck of thigh-bone represented by line *a a*."

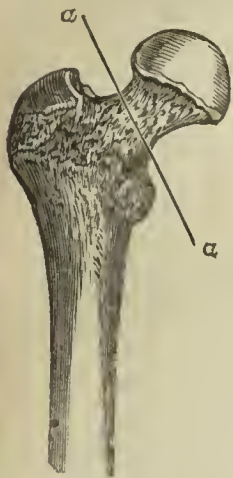


Fig. 2.

Thus it will be seen that Mr. Adams made his section, as shown in the diagram, when little or no alteration had taken place in the neck of the thigh-bone. If bony ankylosis had taken place, the section could not have been made as it is described and represented by Mr. Adams, for the sufficient reason that the parts are not there. The conclusion, therefore, at which I am forced to arrive is, that my opinion as expressed at the examination of the patient is confirmed, and that Mr. Adams operated on a case of fibrous ankylosis by making a section of the neck of the bone. But, it may well be asked, is such an operation justifiable?

And now, sir, I gladly stop. It may be a satisfaction, however, to Mr. Adams to know that in the forthcoming number of the *St. George's Hospital Reports* I have contributed an article on ankylosis. This article was written before my book (which has been the cause of so great offence to Mr. Adams) was published, and it was in Dr. Ogle's possession, and was, I believe, printed before this correspondence commenced. There I have described my operation on the hip in 1861, as it was described before the Royal Medical and Chirurgical Society, as subcutaneous. I shall have much pleasure in sending Mr. Adams a copy of this paper, and he will then have an opportunity of making the history of subcutaneous osteotomy more complete, and of correcting some errors which have doubtless through ignorance or inadvertence crept into his writings on this subject. I am, etc.,

March 27th.

B. E. BRODHURST.

* * This correspondence must end here. In closing it, however, we think it right to express the opinion that Mr. Adams has added an original and valuable operation to the resources of surgery, and that the details which Mr. Brodhurst gives of his interesting case do not affect that claim unfavourably.

MEDICAL STUDENTS OF BOTH SEXES.

SIR,—It is a familiar and fundamental truth of psychology, that a man may regard objects and situations at one moment in what may be called an emotional mood, while at another time he may look at them from a purely intellectual or scientific stand-point. In the former case, he excludes from his view no detail of the situation that can minister to his feelings; in the latter temper, he is entirely absorbed with the matter-of-fact aspect of what is before him. Even a confirmed botanist, albeit unused to the melting mood, may now and again be found to look at say a primrose in its poetical associations, after the manner of Wordsworth, and to forget for the moment that the plant before him affords a good illustration of suppressed whorl or what not. We have, indeed, heard of a celebrated anatomist of Stockholm who was so entirely an anatomist that, even in a drawing-room, the head and neck presented itself to him in an anatomical light, and so betrayed him into habits which would otherwise have been considered rude. Exceptions apart, however, this duality of stand-point is an elementary fact of our constitution. The professional life of a man, as distinguished from his social and domestic life, is to a great extent built upon this mental acquirement; and no profession affords a better illustration of the sort of dual existence of which I speak than the profession of medicine. And, if I may so say, it is a fortunate thing for us that we possess this faculty, itself a product of an advanced civilisation. If a dissector of the human body were to pursue his task without, as it were, putting all his ordinary human feelings in his pocket, wherein

would he differ from the being who but gratifies his palate with the same material? It must seem that this is to inquire too curiously; but, on the other hand, we think it may serve a good purpose to keep in view the psychological *rationale* of those details of our art which the outside public agree to consider revolting. Of course it is plain to every one that the dissector considers what he is engaged on merely as "a part"; and the physician and clinical teacher, when he studies or expounds the medical bearings of his patient's disease, considers it merely as "a case". But these words all the while represent very elaborate abstractions, and they indicate a highly developed abstractive faculty.

Till very recently, the male sex alone was credited with the power of using on occasion its senses dispassionately and in the interests of science; and even yet, for all practical purposes, the female mind is regarded as wanting in the faculty of scientific abstraction, and is spoken of as likely always to be hopelessly entangled in the feelings that arise out of any situation. If this were without exception true, I should despair of medicine as a profession for women. In the first place, during the period of education, their ever present feelings would be harrowed beyond all bearing; and, in actual practice, their energies would be paralysed on every hand. But once admit, what is really beyond controversy, that women also, no less than men, can use their eyes with a difference when occasion serves, and can be as absorbed in the pathological and therapeutic aspects of a case as the veriest pedant of us all, then their claim to co-operate with us is made good. It is a simple application of the doctrine of correlated forces, that such a woman cannot at the same moment experience the rush of feelings that might otherwise have arisen. In this second half of her dual mind, no reflex feeling of shame or blush of modesty is possible. Such feelings do not pertain to the scientific attitude of mind; they cannot be predicated of it, any more than one might say that a circle could take on the properties of a square. A scientific woman is as likely to turn blind in the eyes as red in the face at what comes before her in the way of study. I fear it will take nothing short of a surgical operation to get into the heads of some of our professional brethren in Edinburgh that the ladies who have been knocking for admittance at their gates are endowed, no less than themselves or their male pupils, with the faculty of assuming on occasion a scientific habit of mind. If aptitude mean anything at all in the case of those ladies, it means that they find themselves able so to study the plan and diseases of the body as to banish from their view all aspects but the scientific and the humanitarian, and at the same time so to preserve their native wealth of feeling as to be no less pure, generous, and humane than their compeers of the other sex who have submitted themselves to the same conditions. This was some time a paradox, but now the time gives it proof.

I am, etc.,

X.

OBITUARY.

CAMPBELL MACKINNON, M.D., C.B.,

INSPECTOR-GENERAL OF HOSPITALS, BENGAL ARMY.

THE late Dr. Campbell Mackinnon was the eldest son of the Rev. John Mackinnon, D.D., and of Isabella Fullarton, his wife. He was born in the island of Arran; but in his infancy he went with his parents to reside in Ayr, and was educated at the Ayr Academy, of which at the age of fourteen he was the head boy. He afterwards went to Glasgow University, and at the age of 18 became clinical clerk, and afterwards house-surgeon, to the Glasgow Royal Infirmary. He often reverted in after-life to the incalculable advantage which he had derived from the experience and confidence gained in that responsible position.

In the early part of 1830, Dr. Mackinnon proceeded to Bengal as an Assistant-Surgeon in the Bengal Medical Department. He served for a period of thirty years, rising through all the grades to that of Inspector-General of Hospitals. Few men in any branch of the service had the good fortune to see more varied and active service than fell to the lot of Dr. Mackinnon. With the character which he ever held in the service and in the estimation of the authorities, no medical officer better repaid selection, where hard work, energy, and true professional zeal and knowledge were required.

He served throughout the war in Afghanistan in 1839, '40, '41, and '42; was present with the force under Sir Robert Sale in pursuit of the Candahar chiefs to Girisk; was at the capture of Ghuznee with the force under Lord Keane; at the attack and rout of an Oosbeg force in the Syghan Valley, and at the capture of a fort in the upper Bameean Val-

ley—all in 1839. He was with the force under Sir Robert Sale, in 1840, in the valley of Kohistan; was present in the night-attack at Baboo-Khooshgah; at the capture of Inturn-Durra, and at that of the fort of Joolgah; and was present in the action of Purwan Durra. In 1841 to 1842, he was present at the defence of the fortress of Kelat-i-Ghilzie, when besieged by the Affghans, and was indeed the sole medical officer in charge. He was with the force under Sir William Nott at the battle of Gowine, 30th August, 1842; at the second capture of Ghuznee, and the storming of the heights of Bellool, 5th and 6th September; and at the affairs of Beni Budan and Mydan, 14th and 15th September, 1842. In the Punjab campaign of 1848-49, he was present in the action of Ramnuggur with the forces under the command of Lord Gough; at the battle of Chillianwalla, and at the crowning victory of Goojerat.

He was stationed at Meerut when the Indian mutiny broke out in 1857; and soon afterwards was present in the action fought on the river Hindun under Sir Archdale Wilson, and at the battle of Budlee Ke Serai under the Commander-in-Chief Sir H. Bernard. He was present throughout the siege of Delhi, and at the final storming and capture in September 1857; subsequently, he was present at the actions of Boolundshuhur and Allyghur, with the force under General Greathead. He was in the receipt of five medals, three clasps, and the Cross of the Bath.

In 1858, he was selected to be Inspector-General of Hospitals of the Upper Provinces, in which position he distinguished himself by the fairness and judgment which he exercised in his administrative capacity; and he took advantage of his inspecting tours to report upon all the hill-stations in his circle—reports which, for thoroughness and completeness, are to this day a witness to his sagacity.

Dr. Mackinnon's retirement at a comparatively early age was felt as a great loss to the service and to the country. His future position as head of the department was assured to him; but recent reductions had rendered the prospect too distant, and it was with regret he felt himself obliged to leave a service which he always loved.

To know Campbell Mackinnon was to love, honour, and respect him. It would be impossible to overrate the influence for good of his conduct and example: many men, old and young, have told how their whole career had been influenced by it. Throughout his career he maintained the dignity of the profession, and upheld the tone of the service in every rank and position. He was universally honoured and esteemed throughout the country as an honest man and a true friend; and, in his own service especially, as one of its most able officers.

Soon after his retirement, Dr. Mackinnon married the youngest daughter of the late Mr. H. O. Beatson of Campbellton, Argyshire. His health had suffered from the effects of climate and service; but the attack which proved fatal was bronchitis, on which pneumonia supervened. He was in his sixty-fifth year. His wife, and one boy four years and a half old, survive him.

Dr. Mackinnon was a man of strong religious convictions and steadfast faith, which never wavered, while he was wholly free from any sectarian prejudice. In every relation of life he performed his duties faithfully: he was a good son to his widowed mother, an affectionate brother, and a devoted husband. All will mourn him; but his name and character will live among the members of his old service in India as one of the best memorials of their old department.

JAMES BYRON BRADLEY, M.D., OF BUXTON.

DR. JAMES B. BRADLEY died a few days ago at the age of 80, having been born in Jamaica in 1790. He was M.D. and B.L. of Paris, and a Member of the Royal College of Physicians of London.

Dr. Bradley was a resident medical officer in the Fever Hospital in Manchester for two years; and, after studying three years in London, he was on the Army Medical Staff, in Spain and Portugal, during the Peninsular War; he had the entire charge of the Hospital at Castello Branco, directly after the battle of Salamanca, and was intrusted to bring home sick troops from Lisbon to England. At the conclusion of the war, he studied six years in Paris. During that time he paid particular attention to maladies of the mind at the Salpêtrière, and wrote a treatise On Reason and Madness. He visited the great Lunatic Hospitals of Milan, Bologna, Venice, and Naples, with the view of observing the domestic economy of those institutions, and their peculiar methods of treating cases of insanity. Subsequently, he became Physician to the Westminster General Dispensary. Upon his resigning that office, he received the thanks of the Governors; and afterwards was Physician to the South London Dispensary.

About twenty-five years ago, he went to reside at Buxton, where he enjoyed a good practice. He was the author of a work on the *Causes of Gout and Rheumatism*.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, March 23rd, 1871.

Aylen, Thomas Vaughan, Southsea, Hants
Doran, Alban Henry Griffiths, Lansdown Road, Notting Hill
Hazel, William Francis, Seymour Street, N.W.
Lycett, John Allen, Scarborough, Yorkshire
Moore, Samuel William, St. Thomas's Hospital
Noakes, Samuel Silverthorne, Newhaven, Sussex
Rose, William, High Wycombe

The following gentlemen also on the same day passed their first professional examination.

Fulford, William Edward, London Hospital
Murrell, Clement F. F., St. Bartholomew's Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

ALNWICK, Northumberland—Surgeon to the Gaol.
ALNWICK INFIRMARY—Surgeon.
BETHLEM HOSPITAL—Two Resident Medical Students.
CLIFTON DISPENSARY—Resident Medical Officer for the Redland Branch.
ESSEX and COLCHESTER HOSPITAL—House-Surgeon and Apothecary.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton—Assistant-Physician.
KING'S COLLEGE—Professor of Psychological Medicine.
LEEDS GENERAL INFIRMARY—Assistant Resident Medical Officer.
LINCOLN COUNTY HOSPITAL—House-Surgeon and Apothecary.
LINCOLN GENERAL DISPENSARY—House-Surgeon.
LIVERPOOL DISPENSARIES—Two Assistant Resident House-Surgeons.
LONDON FEVER HOSPITAL—Assistant-Physician.
NEWCASTLE-UPON-TYNE HOSPITAL FOR DISEASES OF CHILDREN—Physician; Surgeon.
ROYAL SURREY COUNTY HOSPITAL, Guildford—Assistant Honorary Medical Officer.
ROYAL UNITED HOSPITAL, Bath—Honorary Physician.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL—House-Surgeon.
ST. MARY'S ABBOTTS, Kensington, Parish of—Medical Officer of Health.
SCARBOROUGH DISPENSARY—House-Surgeon and Secretary.
SWANSEA HOSPITAL—Resident Medical Officer.
WEST LONDON HOSPITAL, Hammersmith—Junior Surgeon.
WESTMINSTER HOSPITAL—Resident Obstetric Assistant and House Surgeon.

[For Poor-law Vacancies see Poor-law Department.]

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

DEATHS.

ANDERSON, Patrick, Esq., Surgeon, at Castle Douglas, Kirkcudbrightshire, on March 6th.
COLTHURST.—On March 17th, at Tyr Phil, Glamorganshire, aged 33, Isabella Sarah, wife of *James B. Colthurst, Esq., Surgeon.
*ROLLS, Thos., Esq., Surgeon, at Blockley, Worcestershire, aged 33, on March 9th.

BEQUESTS.—By the will of Mr. Thomas Godfrey Sambrooke, the sum of £1000 has been left to King's College Hospital; £200 to the Training Institution for Nurses; and £100 to the Royal London Ophthalmic Institution. He leaves part of the reversionary residue of his estate to found an exhibition in King's College.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Dr. Brunton, "On Cases of Measles with Variola, Measles with Eczema, Scarlatina with Variola, and Scarlatina with Varicella." Dr. Meymott Tidy, "On a New Process for the Detection of Sugar in Diabetic Urine."—Entomological Society.—Epidemiological Society.

TUESDAY.—Pathological Society of London, 8 P.M. The following specimens will be exhibited:—Mr. F. Churchill, Pedunculated Growths from the Skin; Effects of Ether-spray upon the Skin in Addison's Disease. Dr. Whipple, Growth in Liver. Mr. Hulke, Large Medullary Tumour of Belly, with similar Tumour of Orbit; etc.

WEDNESDAY.—Obstetrical Society of London, 7 P.M., Council Meeting. 8 P.M., Dr. Graily Hewitt, "The Vomiting of Pregnancy, its cause and treatment"; Dr. Wiltshire, "On Tetanus after Abortion"; and other papers.—Royal Microscopical Society, 8 P.M. Mr. W. K. Parker, F.R.S., "On the Mode of Working Out the Morphology of the Skull"; Mr. Chas. Cubitt, C.E., "On Linear Projection considered in its Application to the Delineation of Objects under Microscopic Observation."

THURSDAY.—Harveian Society of London, 7.15 P.M., Council Meeting. 8 P.M., Discussion on "Variola and Vaccination."

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic Hospital, 2 P.M.

SATURDAY St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Loek (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

EXPECTED OPERATIONS AT THE HOSPITALS.

HOSPITAL FOR WOMEN, Soho Square, Saturday, April 1st, 9.30 A.M. Ovariectomy, by Mr. Scott.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with *halfpenny* stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE are compelled to postpone the publication of letters in type from Dr. Laycock and B. W. on the teaching of Psychology, and other communications.

ERRATA.—By a numerical error in the letter of our Manchester correspondent last week (page 325), the small-pox cases in the Manchester Workhouse were stated as numbering 69, instead of 13.—In the letter of our Liverpool correspondent, in the same page, the name of Dr. *Trench* was accidentally misprinted *French*.

DR. T. H. WALKER (Reading).—A person wishing to qualify as sick-nurse in London may apply to Mrs. Wardroper, St. Thomas's Hospital, or to the British Nursing Institution, of which the address is, we believe, Cambridge Place, Paddington, W. Information may also be had on the subject at the St. John's Home, Norfolk Street, Strand.

IF Dr. Hardie and Mr. Braddon (Manchester) will furnish us with a copy of the resolution or minute passed on the occasion referred to, and the names of the mover and seconder and of the gentlemen present, we shall be happy to accede to their request of publishing a note of the proceedings. Without these necessary and usual details, little value would attach to any statement of opinion purporting to issue from a small meeting on a controversial subject.

THE LADY STUDENTS.

THE following extract from a prologue to the entertainment of the Edinburgh University Dramatic Club, is from the pen of Lord Neaves. It is neatly *à propos*.

In one respect indulgence we entreat;
Our troop of Amateurs is incomplete.
Female associates we have failed to get!
The Lady-students are not numerous yet.
But we may hope—though on this much-vexed question
I merely venture on a mild suggestion—
Ere many years the Faculty of Arts
Will furnish ladies for the gentler parts.
Professionals will seldom then surpass
Our vocal heroines of the Music class.
Portia shall with Nerissa, from the Laws,
Come robed and wigged to judge the Shylock cause.
Lady Macbeth, a fair and fierce young surgeon,
Her husband to the sticking point shall urge on;
And lest his nerves should fail at work so cruel,
Infuse some potent tonic in his gruel.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, March 11th; The New York Medical Record, March 16th; The Boston Medical and Surgical Journal, March 16th; The Madras Mail, Jan. 16th; The Shield, March 25th; The Philadelphia Medical Times, March 8th; The Philadelphia Medical Independent, March 11th; The Kentish Observer, March 23rd and 25th; The Hampshire Telegraph and Sussex Chronicle, March 22nd and 23rd; The Birmingham Morning News, March 15th; The Cork Examiner, March 23rd and 24th; The Bath Journal, March 25th; The North British Daily Mail, March 25th; The North and South Shields Gazette, March 11th; The Glasgow Daily Herald, March 23rd; etc.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. F. H. HEATHCOTE, not later than *Thursday*, twelve o'clock.

A MEMBER OF THE ASSOCIATION.—There are innumerable recipes for black and brown hair-dyes to be found in the columns of recent numbers of the *Pharmaceutical Journal* and of recipe books. We are unable to give an opinion as to their merits. Most of them have either lead or nitrate of silver as a basis.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Theodore Williams, London; Mr. J. Benson, Drumcolloher, Linerick; The Secretary of the Medical Club; Mr. Arrowsmith, Bristol; The Secretary of the Obstetrical Society; Mr. R. H. B. Wickham, Newcastle-upon-Tyne; Dr. Aveling, London; Mr. George Longbotham, Leeds; Mr. Learmouise, London; Mr. W. F. Teevan, London; The Dairy Reform Company, London; The Secretary of the Harveian Society; Dr. Shannon, Ennistimon; Mr. J. Weddell, Birmingham; Dr. James Hardie, Manchester; Mr. Davy, London; Iota, Edinburgh; The Secretary of the Westminster Hospital; Mrs. Garrett-Anderson, London; The Secretary of the Pathological Society; Mr. Henry Day, London; The Secretary of the Clinical Society; Mr. E. C. Board, Bristol; The Secretary of the Royal Microscopical Society; Dr. Blandford, London; Our Glasgow Correspondent; Our Edinburgh Correspondent; Mr. Marriott, Leamington; Dr. T. H. Walker, Reading; Mr. Westmorland, Manchester; Mr. George Clements, Manchester; Dr. J. D. Rendle, London; Dr. Campbell Black, Glasgow; Captain Burgess, London; Dr. White, Lavenham; Dr. A. P. Stewart, London; etc.

LETTERS, ETC. (with enclosures), from:—

Dr. Laycock, Edinburgh; Dr. S. J. Gee, London; Mr. Erasmus Wilson, London; Dr. Maconochie, London; Dr. Buchanan, Glasgow; Mr. Brodhurst, London; Our Manchester Correspondent; Dr. D. T. Maunsell, Dublin; Our Liverpool Correspondent; Mr. C. J. Evans, Northampton; Dr. Akerman, London; Mr. George B. Marshall, East Retford; Dr. Jelly, Madrid; The Editor of the *Wine Trade Review*; M.D.; Dr. Henry Simpson, Manchester; Dr. A. B. Steele, Liverpool; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Dr. Frank J. Payne, London; Our Dublin Correspondent; Dr. R. P. Cotton, London; Dr. J. P. Murray, London; Our Vienna Correspondent; Dr. C. Parsons, Dover; Mr. Fredk. C. Mudd, Uckfield; Mr. J. Jones, Leeds; Dr. Goddard Rogers, London; Mr. Hodgson, Brighton; Mr. J. B. Curgenvin, London; Mr. Fairlie Clarke, London; Dr. Wilson, Cheltenham; Colonel Loyd Lindsay, London; etc.

BOOKS, ETC., RECEIVED.

The Thirty-third Annual Report of the Suffolk Lunatic Asylum, 1871.
The Medical and Surgical Reports of the Boston City Hospital. Boston: 1870.
The Indian Annals of Medical Science. Calcutta: 1870.
The Eighteenth Annual Report of the Leeds Hospital for Women and Children.
The Twenty-third Annual Report of the Manchester Medico-Ethical Association.
Report of the Sanitary Condition of the Whitechapel District for the quarter ending 31st December, 1870. By John Liddle, Medical Officer of Health.
The Naval Medical Service: its present state and prospects, with suggestions for its improvement. By F. J. Brown, M.D. London: 1871.
Pain: its Alleviation, Suspension, and Cure. By Dr. Ellis. London: 1871.
A Treatise on Gout, Rheumatism, and the Allied Affections. By Peter Hood, M.D. London: 1871.
Guy's Hospital Reports. Edited by C. Hilton Fagge, M.D., and Arthur E. Durham. Vol. xvi. London: 1871.
Dr. Dobell's Reports on the Progress of Practical and Scientific Medicine in different parts of the World. Vol. II. London: 1871.
The Nature of the Vital Force. By R. C. Shettle, M.D. London: 1871.
On some Advantages of Animal Vaccination for the Prevention of Small-pox. By A. Vintras, M.D. London: 1871.
The Transactions of the Odontological Society of Great Britain, No. 4, vol. iii.
The Royal London Ophthalmic Hospital Reports, Part I, Vol. iii.
The Ophthalmoscope in the Treatment of Epilepsy. By Reuben A. Vance, M.D. New York: 1871.
The Conditions of Health: a Pamphlet for the People. By Joseph Mitchell, L.R.C.P. Edin. London: 1871.
The Dublin Practice of Midwifery. By Henry Maunsell, M.D. New Edition. Edited by T. M. Madden, M.R.I.A. London: 1871.
Subject and Object as connected with our Double Brain, and a New Theory of Causation. By R. Verity. London: 1870.
The Action of Neurotic Medicines in Insanity. By T. S. Clouston, M.D. London: 1871.
Report of the York Lunatic Asylum for the seven months ending December 31st, 1870. York: 1871.
Essays on Darwinism. By Thomas R. R. Stebbing, M.A. London: 1871.
Observations on Aphasia. By Alexander Robertson, M.D. Glasgow: 1871.
Aunt Rachel's Letters about Water and Air. London: 1871.
Proceedings at Annual Meeting of Members of University College, London, 1871.
The Third Annual Report of the Cottage Hospital, Mildenhall.
Medical and Surgical Examination Questions. By H. A. Husband, M.B. London: 1871.
A Manual of Midwifery. By Alfred Meadows, M.D. Lond. Second Edition. London: 1871.
A Sketch of the History of Small-pox and Vaccination. By W. H. Barlow, M.D. Manchester: 1871.
Letters on Vaccination. By W. Woodward, M.D. Worcester: 1870.
Transactions of the Odontological Society of Great Britain, Vol. iii. London: 1871.
Modern Medicine: Has it kept pace in Advancement with the Times? By T. B. Crosby, M.D. London: 1871.

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"EARL RUSSELL communicated to the College of Physicians that he received a dispatch from Her Majesty's Consul at Manilla to the effect that Cholera has been raging fearfully, and that the ONLY remedy of any service was CHLORODYNE."—See *The Lancet*, 1st December, 1864.

CAUTION.—Vice-Chancellor Sir W. Page Wood stated that Dr. J. Collis Browne was undoubtedly the Inventor of CHLORODYNE,—that the whole story of the Defendant was deliberately untrue, which, he regretted to say, had been sworn to."—See *Times*, 13th July, 1864.

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GULSTONIAN LECTURES ON THE HEAT OF THE BODY.

DELIVERED AT
The Royal College of Physicians, London,
MARCH 1871.

By SAMUEL J. GEE, M.D., F.R.C.P.,

Assistant-Physician to St. Bartholomew's Hospital and to the Hospital for Sick Children.

LECTURE III.

WE have proved that in pyrexia there is augmented generation of heat; also that the products of combustion are increased in quantity; a third point remains to be discussed. Is there a corresponding consumption of combustible? In other words: Do the tissues of the body waste more rapidly in the pyretic state than in the state of health? In health, the ingesta and egesta must exactly counterpoise each other, so that the weight of the body may remain unaltered. If the consumption of the tissues be increased (which we presuppose to be the case in pyrexia), whilst the quantity of the ingesta remains as before, the body obviously must lose weight. But, in the pyretic state, the problem is not so simple. The ingesta are usually diminished; moreover, the digestive powers are impaired; so that, for these reasons, a fever-patient would lose weight, independently of the pyrexia. And the difference in these respects is very great in different persons: a fact which explains the different conclusions to which different observers have come; some declaring that the loss of body-substance is greater than in a state of hunger, others that the loss is inconsiderable.

It is more easy to ascertain the loss of weight which corresponds with the different stages of a febrile disease in the same patient. Upon this point I will refer once more to Leyden. A number of careful weighings, in different forms of fever, led to the conclusion that the greatest loss of weight occurs during the crisis—a loss equal to about one per cent. of the whole body-weight in twenty-four hours. The loss of weight shortly after the crisis, and during the height of the fever, is about one-half per cent. Still less is the loss during the period of remission; and the loss at the beginning of convalescence is the least of the whole illness; there is a loss, however, even then—that is to say, the loss of body-weight does not cease with the pyrexia.

Loss per cent. of body-weight in twenty-four hours.

Whole illness .....	.66	High fever .....	.57
Crisis	1.06	Remission .....	.45
After crisis .....	.59	Early convalescence .....	.24

Taking the fever as a whole, without regard to its stages, Leyden estimates the average loss of weight in the febrile state to be about half that of absolute hunger. Hence he infers that, in ordinary cases, the danger of death from inanition does not begin until the fever has lasted eight weeks. But, obviously, all these data must differ greatly in different cases; death from inanition is certainly at hand so soon as the body has lost forty per cent. of its natural weight.

It would be a mistake to suppose that this loss of weight always indicates a corresponding loss of body-tissue. On the contrary, the great loss during the crisis is undoubtedly due to increase in the insensible excreta, chiefly water. By comparing the loss of the body-weight with the weight of the ingesta and of the urine and fæces, Leyden arrived at the following average results:—

Excreta by skin and lungs per mille of body-weight in twenty-four hours.

Crisis	1.55	After Crisis .....	.85
Remission	1.20	Early convalescence .....	.64
High fever	1.00	Apyretic person .....	.73

You will observe that Leyden has no facts to bring forward concerning the cold stage of fever. However, notwithstanding this defect, his figures enable us to draw the following conclusion; that, comparing the hot and critical stages of fever with the non-febrile state, the insensible excretions are as ten in pyrexia to seven in the apyretic condition. The increase is greatest during the critical period of the fever, at which time the æriform excreta are double the standard of health; now we have already seen that, in the sweating stage, the carbonic acid expired is not increased at all, so that the whole doubled loss during that period must be due to evaporation of water.

The increased temperature of pyrexia does, then, signify increased chemical change. You will remember that, when we discussed the physiology of the natural heat of the body, we dwelt upon sundry chemical processes which go on outside the blood-vessels and within them. And we found that there was much to be said in favour of Mayer's assertion—that not one-hundredth part of the oxidation-processes of the body go on outside the blood-vessels. Are there any grounds for belief that the oxidation of the blood is augmented in pyrexia?

The artificial production of pyæmia in the lower animals, by the injection of putrid matters into the blood, is an experiment of old date, which has been oftentimes repeated. But, more recently, Billroth and Hufschmidt found that even perfectly laudable pus, injected either into the blood-vessels or into the subcutaneous tissue, had power to produce both local inflammation at the spot where the injection was made, and also a general pyretic state. C. O. Weber went a step further, and showed that the same results could be brought about by the fluid of inflamed tissues, and by the blood of pyæmic or even of simply febrile animals. Three or four years ago, many dissertations were published by students of the Dorpat school upon this subject; the chief facts which they established being as follows: that to remove the fibrin from blood, or the corpuscles from pus, by whipping the blood or filtering the pus, does not remove the pyrogenic and phlogogenic power of the blood or pus; and that the height and duration of the pyrexia set up depend upon the amount of pyrogenic liquid injected; when it is large in quantity, death ensues. When a local inflammation is set up, this modifies the pyrexia and prolongs it. For, when the injection is made into the veins without the production of any local phlogosis, the acme of the pyrexia is reached in two or three hours, and in a few hours longer the temperature regains its normal.

I have spoken of the injection of febrile or of inflammatory blood. But healthy blood, injected in large quantity, also raises the temperature. Not so, however, if blood be removed from one vein at the same time that blood is being injected into another. And, with regard to venesection alone, although for a short time (say half an hour) it may depress the temperature, yet afterwards the body-heat not only rises to its original point, but even goes beyond it. That is to say: like unto injection of pus, of pyæmic or febrile blood, or of healthy blood, so venesection also is pyrogenic. The rise of temperature consequent upon blood-letting occurs both in febrile and in non-febrile animals; but in non-febrile animals, the venesection must be very copious to affect the temperature in this way; the rise of temperature begins immediately, reaches its maximum in an hour or two, and then a fall ensues. Even when the body-heat is falling rapidly, renewed blood-letting delays the fall, or even causes a renewed elevation. Under venesection such as this, healing ulcers often begin to open again. In febrile animals, injection of healthy blood sends down the temperature.

I will not follow these experiments further. Underlying them all is the inference that the products of the disintegration of the tissues are productive of local inflammation when injected into a texture, and productive of pyrexia when injected into the blood. Pus is notably a result of increased metamorphosis of tissue. But even healthy blood must contain more or less of the products of regressive tissue-change. In the first lecture we noticed some experiments of Alex. Schmidt which seemed to leave no doubt possible that the blood does, in health, convey materials which are prone to the speediest oxidation; so that an excess of natural blood raises the temperature, because involving an excess of highly oxidisable matters. Again, venesection is pyrogenic, and possibly because it favours the absorption of the intermediate results of the consumption of tissue. And inflammation implies a disturbed metamorphosis, with an unnaturally rapid decay, whereby the tissues locally, and the blood generally, become overloaded with those half-degraded products of tissue-change, which need oxidation so as to arrive at that state in which they can be separated from the body. Hereafter we shall find that the reverse sequence of events, also, is probably true—that pyrexia increases the destruction of the tissues.

Before quitting this part of our subject, let us investigate a little further the source of the pyrexia which is secondary to local inflammation. It is a very old notion that the local disease is a kind of hearth where the increased heat is generated, and that the universal pyrexia is due simply to the heat carried off by the circulating blood from the local phlogosis. This doctrine has been held by living pathologists, but there can be, nevertheless, small doubt that it is not consonant with fact. The most recent experiments, made by thermo-electric needles, confirm the dogma of John Hunter that the temperature of a local inflammation is never above the temperature of the blood. More than this: the temperature of highly inflamed skin, or of muscle even in the deepest layers next the bone, never reaches the internal temperature of the body as measured in the vagina, the rectum, or the peri-

toneal cavity. In the severest inflammation, the difference almost always amounts to two degrees or more. Next, the inflamed parts in the acute stage of the inflammation, although cooler than the internal viscera, are yet generally hotter than the corresponding non-inflamed parts on the other side. But the difference between the two sides is less, the farther the parts concerned are from the surface. Thus, in the case of a rabbit's ears, an inflamed ear may be eight or nine degrees hotter than the other; whilst in deep-seated muscles, the difference rarely exceeds a degree, and may be none at all. When the inflammation becomes less acute—for example, suppurating wounds—the inflamed parts are often actually cooler than the corresponding parts in the sound limb. Even with regard to the internal viscera, the peritoneum or the pleura may, when inflamed, be nearly a degree less warm than the left ventricle; usually, however, the temperatures are equal. Now, if the pyrexia can but partly depend upon heat abstracted from the local inflammation, there seem to be two alternatives left to account for the influence of a phlogosis upon the general body-heat. Either the pyrogenic influence is conveyed by the nerves to a supposed heat-regulating centre (a subject which I have postponed hitherto), or the vessels absorb from the wound some matters which set up the fever. The experiments of Brener and Chrobak, although not free from objection, seem to militate against the nervous hypothesis. They removed portions from all the nerves supplying a dog's leg. They then suffered the wounds to heal; and this required, in general, one or two months. They then caused severe inflammation of the paralysed limb, and noted that the body-heat was raised as much as if the nerves had not been resected. Hence by way of exclusion we are almost forced to accept the doctrine, which for other reasons we have seen to be highly probable, that traumatic pyrexia depends upon pyrogenic compounds absorbed by the vessels from the local inflammation.

So much for the chemical theory of pyrexia; that, just as the heat of the body in health is due to chemical combinations, so the increased heat of pyrexia is due to increased chemical combination. I will now briefly allude to the old mechanical theory. It being believed that the heat of the body in health was due to the friction of the blood, it was naturally supposed that increased heat was due to increased friction, that is to say, to increased velocity of the blood, and increased resistance in the capillaries. The one was corollary to the other. And, no doubt, the immediate cause of some of the febrile heat is in most cases really mechanical: but this is no gain of heat to the body. I will not occupy your time by going over this old ground again.

Let us pass to the other possible alternative cause of pyrexia; namely, diminished loss of heat. No more than the ordinary amount of heat is generated, but less than ordinary is lost: therefore, the temperature of the body rises. The proofs which we have given of the opposite hypothesis, that there is increased generation of heat in all stages of fever, have already refuted by anticipation the doctrine we are now considering. Yet it may be profitable to go shortly over the arguments in favour of the hypothesis of diminished loss of heat.

As you are no doubt well aware, this doctrine has been chiefly upheld by Traube. The lectures unfolding his views were published eight years ago. He begins with a consideration of the cold stage of fevers, in which, he says, the amount of blood in the skin is diminished. This anæmia must be due either to want of power in the heart, or to contraction of the muscular coat of the smaller arteries. But there are no reasons for supposing that the heart is weakened. Therefore, there is a contracted state, a tetanus, of the small arteries of the skin. And, supposing that the arteries of the whole body are in the same condition, Traube believes that he can account in this way for the dry tongue, anorexia, dyspepsia, constipation, diminished secretion of urine, cerebral and other symptoms, generally attendant upon the febrile state. He points out also how, when the vessels relax, and a sweat breaks out, the fever ceases.

Surely it is very curious to note in all this a revival of Boerhaave's doctrine concerning the increased arterial resistance in pyrexia; nay, even of Cullen's reference of that resistance to spasm of the vessels. Of course the supposed vascular spasm is presumed to act differently in the two hypotheses; Cullen supposed it to increase friction, Traube to diminish loss of heat. It is curious also to recal Marey's doctrine of pyrexia, which we formerly discussed, and which, you remember, was based upon the supposition of a paralysis, not a spasm, and of a dilatation, not a contraction, of the arteries in a febrile state. But like Cullen's and Marey's, so also Traube's hypothesis must be classed amongst ingenious attempts to make a process which may be potent to a certain extent, exclusively potent. Leyden's calorimetric experiments have shown us that, even in the cold stage, there is no diminished loss of heat. Doubtless the loss is relatively diminished; relatively, that is, to the increased production: but absolutely the loss is increased in all but the cold stage. I am bound to add that, in the most recent devel-

opments of Traube's hypothesis, the increased production of heat during pyrexia is not denied.

Now that we have reviewed the most important facts which illustrate the nature of pyrexia, let us come to consider it as a cause, and ask if it produce any consequences of its own. We have already found that the combination of tissues which we call the body cannot continue to live under an internal heat of 113 deg. or more. And, in the case of individual cells, Max Schultze and others have shown that the law is the same: death upon a small elevation of temperature. Moreover, anatomical changes are found in the bodies of animals which have died under the condition of mortal elevation of their temperature. But nature does nothing by leaps: we should expect before hand, that temperatures which are unnaturally high, although not straightway destructive of life, would yet exercise a deleterious effect upon the tissues. This is no new notion. Boerhaave's 689th aphorism runs thus: "The augmented heat drives off the most liquid parts from our blood, that is to say, the water, the spirits, the salts, and the most subtle oils; it dries up and condenses the remaining mass, makes it concrete into an impassable irresoluble matter," and so on. Boerhaave's particulars are clearly created at will out of his gross chemical and mechanical pathology; but his general idea has been revived of late years, and supported by careful observation of fact. For example, Liebermeister, who has especially worked at this subject, thus writes: "The longer I study fever, the more I am strengthened in my conviction, that the manifold symptoms which make up the idea of fever are, in great part, mere consequences of one of these symptoms, namely, the elevated temperature. The elevated temperature is not only the pathognomonic symptom of fever, but also the immediate and sufficient cause of most of the other symptoms peculiar to fever, or characteristic of it." We will now consider the facts which are deemed to support this doctrine.

You will remember that, when we were discussing the combustible parts of the body, we found that the heat was furnished in chief part by the glands, the muscles, and the blood; what heat was derived from the nervous system remained uncertain. It is upon these very same organs that pyrexia reacts.

First, with regard to the glands. No doubt it forms part of the practical experience of all who are here present, to know how frequently the cortex of the kidneys is found *post mortem* in a pathological state. In fact, except in the case of perfectly healthy persons who have met with a sudden death, it is very uncommon to see the kidneys free from that change which has been called cloudy swelling, parenchymatous swelling, or albuminous infiltration. Both the glandular epithelium and the intercellular material become charged with minute opaque molecules, which behave like albuminous matters to chemical reagents. In all probability the immediate antecedent of this state consists in an afflux of nutritive material beyond what the organ can use up; either the afflux of blood is increased, or the consuming activity of the organ is diminished, or both of these processes are at work at the same time. Be this as it may, there is little or no doubt that a pyretic state is attended by clouded swelling of the cortex of the kidney, more or less. Not that it is by any means peculiar to pyrexia: on the contrary, local irritation, serious chronic diseases, are accompanied by the same change. But a febrile state is able to produce a high degree of parenchymatous swelling in a few hours; and the degree of the change is mostly proportional to the height of the fever, or to its duration. Function is probably disturbed at the same time; at any rate, the secretion, the urine, sometimes becomes albuminous. A complete return to health may follow the lesser degrees; but when the change has been great, fatty degeneration and disintegration of the tissues ensue. Changes of precisely the same kind take place in the liver. Out of twenty-four fatal cases of typhoid (enteric) fever, Liebermeister found that in eighteen the degeneration of the liver had gone so far as to lead to partial destruction of tissue, and that in the remaining six the degeneration was well marked, although not so far advanced. And, as to the kidneys, in sixteen cases the epithelium was fatty, and in the remaining eight affected with simple albuminous infiltration.

Next, the muscles undergo similar changes; that is to say, they become infiltrated with albuminous and fatty molecules. But, besides these morbid states, you will remember that apparently peculiar condition which Zenker has more particularly studied, and which has been called the waxy or colloid degeneration of voluntary muscle. In half his fatal cases of typhoid fever, Liebermeister found this waxy degeneration more or less advanced. The symptoms which depend, during life, upon these muscular changes, are those so admirably described by bedside physicians under the name of febrile debility. "If that part of the animal actions," says Stoll, "which comprehends voluntary movements, through fever languish so that they are exerted with unwonted difficulty and with a sense of weakness, debility of the animal function is said to be present." But what of the most noble muscle? what

changes does the heart undergo? Softening of the heart in typhoid and typhus fevers has long been familiar to morbid anatomists. In Liebermeister's cases, the heart was fatty in twenty-one, and in the remaining three was affected with simple albuminous infiltration. And the symptoms which attend these degenerations of the heart are those which are classed under the head of vital debility. "If the muscular action of the heart," says Stoll, "the arteries, the lungs, and thereby the circulation of the fluids, be diminished beyond that point which is wont to constitute health, there will be a vital debility, differing in degree, duration, and kind." This is what some persons have called *asthenia*, or *adynamia*. Every fever in which the temperature remains continuously high tends to take on the characters of *asthenia* or vital debility. I will only very briefly allude to these symptoms. First in importance comes the increased frequency of the pulse, which, as a general rule, is proportional to the debility. Moreover, frequency and feebleness of the heart's contractions go together. It has been noted by Cyon and Panum that the contractions of the heart cut out of a frog are greatly influenced by the surrounding temperature: generally speaking, the number of the contractions increases proportionally to the temperature. The irritability of the heart also is more quickly exhausted by a high temperature. The weakening of the first sound of the heart is another sign of the deterioration of the muscular tissue. And the passive congestions and pulmonary oedema, which are so often the immediate causes of death, are further consequences of the vital debility. But perhaps the most striking form of *asthenia* is that which Galen named *lipyria*. "If the external parts be cold, but the internal be burnt up, it is a mortal symptom," says Hippocrates—and with reason; for the debility of the circulation must be great indeed when the blood of the rectum is 104 or 105 deg., and that of the extremities 50 or 60 deg.

Thirdly, concerning the blood itself: upon this topic, chemistry and microscopical anatomy do not give us the definite information which we might wish. The fibrinogenic part of the blood seems to be diminished as a consequence of prolonged pyrexia. And in drops of blood drawn from the finger of febrile patients I think I have found changes in the lymph-corpuscles similar to the changes which we have seen to be present in the case of the glandular epithelium; viz., a granular infiltration of the cells. These granular lymph-corpuscles sometimes seem to be swelled also—a trifle larger than the unaffected corpuscles. At the same time, the blood contains very many free granules, apparently of the same kind as those present in the corpuscles. I confess, for my own part, that it does not appear improbable that these changes are really indicative of a degeneration of the blood, augmented by pyrexia. Any how, the increased metamorphosis which forms part of fever must necessitate the blood being overloaded with the products of those changes. The clinical aspect of the matter is better understood. The symptoms which the ancients considered to be characteristic of what they named putridity are partly due to the change which pyrexia induces in the blood. "The great sign," says Galen, "of putrid fevers is the quality of the heat; for it has nothing mild, nor moderate, nor ephemeral, but, as the best physicians before us have said, it is biting." Translated into modern phrase, putridity is due to a severe fever or a long fever. So Boerhaave, in his 698th aphorism: "The hottest fever is acute, swift, putrid: heat putrefies." And we have not yet forgotten De Haen's vigorous polemics against the heating treatment of fever, which was orthodox in his day, and which he declared, truly enough, to be the cause of all the putrid symptoms, petechiæ and others. Van Swieten endeavours to explain some of the symptoms by the supposition that coagulation of the blood is a possible consequence of the elevated temperature; and this hypothesis receives some support from the declaration of Weikart that the blood begins to clot in the vessels at 109 deg. But the expression "dissolution of the blood" probably comes much nearer to the truth. Liebermeister has shown that parenchymatous degeneration of the liver, however induced, has a strong tendency to be associated with hæmorrhages; and we cannot overlook the great likelihood that degeneration of the coats of the small vessels may be a consequence of pyrexia. But, although we are not yet able to explain the exact nature of putridity, yet the state itself is very real, and the old name, I think, very good. I have often been surprised that the medicine of the present day seems to have forgotten not only the name, but almost the thing signified. I cannot do better than refer once more to Stoll, and on this occasion to his chapter upon Putrid Fever, the first aphorism of which, by your leave, I will quote: "That synochus has been called putrid, which is due to the causes of fever, but greater than usual, and applied longer; with a greater degeneration of the solids and liquids; a more universal degeneration also, swifter, inducing putridity." For the name putridity is not used in a sense metaphorical; but, as matter of fact, the patients sometimes become actually putrid during life, whilst after death decomposition

advances with astonishing rapidity. No doubt some fevers become putrid much more rapidly and with less elevation of temperature than others; so that, although the pyrexia by itself has much to do with the generation of the group of symptoms which we are now considering, yet much must be conceded to the specific nature of the fever—much also to the constitution of the patient. Rheumatic fever is a remarkable example of a severe fever, and a long fever which is, as a rule, singularly free from any disposition to putridity; yet the ardent form of rheumatic fever always passes into putridity. On the other hand, in epidemic diphtheria, two or three days of moderate pyrexia sometimes suffice to plunge the patient into the severest degrees of putridity; the urine becomes loaded with albumen; the blood during life is of a dirty brown colour; uncontrollable hæmorrhage occurs from the mouth and gums; and, *post mortem*, we find parenchymatous degeneration of the glands and heart in the most decided form.

Lastly, what direct influence does pyrexia exert upon the nervous tissues? Now here we are compelled to confess still more our ignorance. The morbid anatomy of the nervous tissue is in a most backward state: so that it is a pure hypothesis (more or less plausible, we may think) to deem that the nervous symptoms which accompany the febrile state are due to changes induced in the nervous tissues by the elevated temperature. Nevertheless, although we do not know in the least of any such anatomical changes referable to pyrexia; yet that it is the cause of much of the disturbed function, would seem to be indicated by the good influence of abstraction of heat over these nervous symptoms. I allude more particularly to the treatment of the so-called ataxic form of scarlet-fever by cold water applied externally: the method introduced by Currie. But the more rapidly fatal cases of scarlet-fever, those which exemplify the true or primary malignity, would seem to show that the elevated temperature alone cannot account for the sudden and complete collapse of the animal functions. When a child in perfect health is suddenly seized with incessant vomiting and purging, delirium and tremors, rapidly falls into a state of complete prostration, and dies in twenty hours, the temperature never rising, even under the influence of convulsions, above 105 deg., it is difficult, I say, to attribute the perfect paralysis of the nervous system to the elevated temperature alone. Yet certainly there is, in many respects, a close resemblance between a case of malignant fever such as I have described, and a case of sun-stroke. Perhaps it is more plausible to see in the paralysis and intellectual defects which follow long fevers, evidences of deleterious change of tissue.

If it be, then, highly probable that pyrexia induces change of structure identical with those consequent upon inflammation, it is hardly less probable that these local changes react upon the body at large in the same way as inflammations act (the pyrogenic power of which we have already discussed)—that is to say, fever produces fever. And the same is probably true of putridity in fevers; it tends to perpetuate and to multiply itself. This opinion is rendered still more plausible when we call to mind the baneful effect which fevers in general, and putrid fevers in particular, exercise over local inflammations. Moreover, the opinion of Liebermeister is certainly very probable, that the unfavourable course which fevers run in the aged, the intemperate, and the fat, is partly due to the degenerations which have already taken place in their tissues—degenerations of much the same kind as those produced by pyrexia.

[To be continued.]

TOXIC ACTION OF QUININE.

A LITTLE time since, I ordered half a grain of quinine as one of the components of an aperient pill for a lady who consulted me. Half an hour after the dose was taken, she was conscious of some irritation over the skin of the head and face, ending in erysipelatous redness and oedema of the right side of the face, eyelid, etc. This lasted more than twelve hours. Since that time, she has kindly sent me a very vivid description of the effects produced upon her by quinine; and I have condensed the following notes therefrom.

"My first recollection of taking quinine is that, when about sixteen, I was weak, and had medicine ordered. The first dose I took at bedtime. I passed a very restless night; and in the morning my whole head was much swollen, and the face so altered that I could with great difficulty open my mouth to take food. The cause was unsuspected. Some time afterwards, I took a glass of port wine from a wineglass in which medicine had been previously taken. But a very small quantity remained in the glass of the quinine solution; yet the same condition of swelling of face, etc., came on, but not so severely. Once again, when recovering from small-pox, I took some quinine, and had large wheals with local redness over neck, chest, and arms. All preparations of bark (*cinchona*) affect me more or less in this way."

W. NEWMAN, M.D. Lond., Stamford.

CLINICAL LECTURE

ON

A CASE OF LEAD-POISONING, TREATED WITH IODIDE OF POTASSIUM.

BY HENRY THOMPSON, M.D.,

Physician to the Middlesex Hospital.

GENTLEMEN,—George Prosser, a painter, aged 26, four years ago suffered from an attack of lead-colic, accompanied by inability to pass urine, and followed by slight loss of power in the arms and hands. During recovery from the above attack, he was seized with rheumatism and laid up for three months longer. Since that time he has never been thoroughly well. His principal ailments have been night-sweats, free perspiration by day on slight exertion, occasional violent pains in the forehead, frequent nausea after food, and gradual failure of strength in both arms and hands, especially on the right side. Four months before admission into the Middlesex Hospital he left off work, suffered for a while from habitual constipation, and, during the period mentioned, had three distinct attacks of colic. The first was accompanied by loss of power in the arms, which drooped and hung helplessly by his side.

On admission, December 24th, there was marked drooping of both hands at the wrists, at the metacarpo-phalangeal joints, and at the two succeeding digital articulations. There was considerable wasting of all the muscles in the arm and fore-arm, most pronounced in the extensors and in the ball of the thumb; the deltoids also were deficient in power. There was a broad blue line along the margins of the incisors. No albuminuria was present. He was ordered four grains of iodide of potassium with ten minims of tincture of nux vomica every six hours; compound camphor-liniment to the hands and arms, and sulphur-baths three times a week.

On December 16th, there was occasional inability to pass urine. Faradisation was ordered to be applied to the outer aspects of the arms and fore-arms. On the four following days he complained of pains in the abdomen and forehead. On the 21st, splints were ordered to the inner aspect of the arms and hands, and a pill, containing quinine and iron, was prescribed, in addition to the measures above mentioned.

On December 23rd, we found him with the following symptoms: a feeling of chilliness, nausea, increased pain in the abdomen, severe headache, clammy skin, injected conjunctivæ, epiphora, coryza, and great prostration. The abdomen was tender, especially over the liver and spleen; and there were pains shooting from the knees to the hips. Pulse 132, temperature 101.4 deg.

This was clearly an attack of iodism, and, as I believe, of more than iodism. Iodide of potassium, quinine, and iron, were abandoned, and sulphuric acid substituted. In the afternoon he vomited. On the following day, there was continued pain over the liver and spleen, and ultimately diarrhœa. Compound soap-pill and brandy were administered. On the 25th, the symptoms of fever and irritation, though not abolished, were considerably abated. The temperature had fallen to 98.6 deg., and the pulse to 92. He was ordered lime-water, and five grains of compound soap-pill every six hours. On the 26th, there was decided improvement in every sense. The paralysis of the extensors had greatly diminished; the middle finger and thumb of the left hand and both the wrists were easily extended and flexed. Pulse 80, temperature 98.4 deg.

From this date until the 11th of the following January the patient's condition fluctuated more or less, and many of the old symptoms came and went capriciously. On the whole, however, by this time there was a marked amendment—enough to justify me in recommencing the iodine treatment. From the 1st January he had been taking a sulphuric acid mixture containing quinine and the sulphates of iron and magnesia, along with compound soap-pill, twice daily. I now substituted a pill containing quinine, iron, and opium, and a mixture containing four grains of iodide of potassium with syrup of poppies and mucilage of acacia. There still remained some coryza, epiphora, and shooting pains in various parts; nevertheless, he continued to improve in a desultory way until the 20th January, when he had sharp pains in the abdomen, a feeling of cold in the back, free discharge from the nostrils, and a pustular eruption on the left shoulder and the right side of the face.

Clearly this was a second attack of iodism, and, as I believe, of more than iodism. All medicines were now suspended except the opiate. Again, there was marked amendment in the power of the arms and hands: and now ensued another interval, at the expiration of which it appeared justifiable to begin anew the iodine treatment. On the 30th January, along with the compound soap-pill I prescribed five grains of iodide of potassium three times daily, in association with mucilage

of acacia and infusion of calumba. From this date until February 16th, there was little if anything of moment to notice in his condition. The chief symptoms were some degree of headache, coryza, smarting of the eyes, occasional pains in the abdomen, and indifferent appetite. On the 16th February he felt generally worse than usual; in particular he complained of frontal headache, and in the evening of coryza. On the 17th February occurred another explosive attack, characterised by severe and increasing headache, a pulse of 120, a white, thickly coated, somewhat dry tongue, sickness, sleeplessness, aching in the limbs, colic, prostration, and perspiration. There was, however, no remarkable amount of coryza or suffusion of the eyes. He was ordered an effervescing draught with spirit of chloroform three times daily, and five grains of compound soap-pill every night. The iodide of potassium was omitted. Again, then, followed a marked amelioration in the movements of the hands and fingers.

I now came to the conclusion that I had given quite enough of iodine. From the 22nd of February until his discharge the treatment consisted of tincture of nux vomica, sulphuric acid, a pill containing quinine and iron, sulphur baths, and Faradisation. On the 5th of March he was considered sufficiently well to be sent to the Asylum for Convalescents at Walton.

REMARKS.—You are aware that iodide of potassium has enjoyed for some time past a high reputation for redissolving and eliminating lead from the system—not so much in cases of incipient plumbism as in those where the whole frame is thoroughly saturated with the poison, as in the present case. Two questions at once suggest themselves to your mind. One of the commonest tests for the presence of lead is this self-same iodide of potassium, which throws down, with a lead-compound, a brilliant yellow precipitate of iodide of lead. If, then, iodide of potassium fixes lead in the form of an insoluble iodide—insoluble, I mean, in water and in most solutions—how can it dissolve lead already fixed within the system? The answer is, iodide of potassium not only forms iodide of lead under ordinary circumstances, but it has a strong tendency also to combine with the iodide of lead in the condition of a soluble double iodide of lead and potassium, or plumbiodide of potassium; and the same is presumed to be its operation within the lead-impregnated human system. The second question is this: If the lead is redissolved, ought it not to reproduce, or to exaggerate, the symptoms of lead-poisoning? It *does* reproduce or exaggerate those symptoms, the authorities tell you; but I have never seen the details of this occurrence distinctly recorded. In this point of view it may be useful and instructive to offer a brief commentary on the particulars just enumerated, presenting as they do the strongest probabilities of this very occurrence having taken place.

By way of parenthesis, I may remind you that the alkaline iodides stand in the same relation to mercury as to lead; that this relation is exemplified both in the laboratory of the chemist, and, as the surgeons say, within the human system, where, after a course of mercury, the iodides may reproduce or intensify mercurial action; and that they have been actually administered for the cure of certain forms of mercurialism.

To return to our case. Before admission, within the space of three or four months the patient had three several attacks of colic, for which he was put upon some medicine which, in the end, produced the symptoms of a cold in the head, and was then discontinued. On each occasion he felt the power of the hands and arms considerably strengthened. There can be no reasonable doubt that the medicine he took was one of the alkaline iodides. The same striking amendment occurred after admission under the same treatment on the 26th December, the symptoms of iodism having reached their acme on the 23rd. Symptoms of iodism they unquestionably were for the most part: the question remains, whether they were not something more. I incline myself to the belief that there were additional evidences of lead-poisoning underlying the manifestations of iodism. The severity of the pain and tenderness in the abdomen, and the shooting pains in the limbs and chest, seemed to point in this direction. At all events, I have never seen symptoms so severe in the aggregate as the consequence of a simple course of iodine, nor have I often seen iodism so rapidly culminating. The same symptoms reappeared in a modified form on the 20th January, and immediately afterwards the same amendment followed. Again, on the 17th February, occurred another explosion. This time the characteristic symptoms of iodism were less strongly pronounced, and those of lead-poisoning decidedly in the ascendant. This is a point of considerable importance, and strengthens materially the conclusion which I draw from the foregoing series of events. However unobtrusive the symptoms of iodism in this last explosion, they were plainly predominant in the first two outbreaks which came under our observation. As we then saw at a glance that iodine determined the preceding attacks, so, judging alike from analogy and from the degree of iodism actually present, we infer unhesitatingly that iodine also determined the last event.

On the whole, then, I conclude that in all three instances we produced in this man not iodism alone, but iodo-plumbism, that is, lead-symptoms resuscitated and reinforced by iodine. All three attacks were originated by iodine; two were characterised in the main by iodism, and in a lesser degree by plumbism; one was characterised in the main by plumbism, and in a lesser degree by iodism.

I acknowledge freely that it would be difficult to prove all this—to demonstration, as it is called. The internal pains and other symptoms of lead-poisoning, it must be remembered, never entirely ceased, but persisted more or less throughout, recurring from time to time. It is, indeed, immensely improbable that the symptoms of lead-poisoning in an acute form should by mere accident three several times coincide exactly with an outbreak always determined by iodine, and twice prominently exhibiting the characters of iodism. Nevertheless, some people might say that such a thing is conceivable, and that the events recorded were chance concurrences and nothing more. Again, it must be remembered that iodism in some of its features bears a rather close resemblance to plumbism. We cannot, therefore, as far as the present case goes, absolutely demonstrate that iodo-plumbism, whose existence, theoretically, would seem essential to the principle of the treatment; but assuredly we approach as nearly to an absolute demonstration as clinical experience will ordinarily allow. Anyhow, we can demonstrate iodism, immediately and invariably followed by marked amendment; and that is the main point for all practical purposes. The same practical conclusion is confirmed by the previous history of the case; but inasmuch as this is hearsay evidence only, I have declined to dwell upon it.

It would be unfair to ignore or undervalue the efficacy of the concurrent remedies employed. To these I ought in justice to add that most powerful remedy—time. To all appearance, however, the iodine played the foremost part; the rest were secondary and subordinate.

CLINICAL REMARKS

ON THE

TREATMENT OF NOCTURNAL ENURESIS AND AN ALLIED AFFECTION.

By J. B. BRADBURY, B.A., M.D., M.R.C.P.,
Physician to Addenbrooke's Hospital, Cambridge.

IN the *Lancet* for November 19th, 1870, Dr. William Thomson, of Peterborough, has recorded two cases of nocturnal incontinence of urine treated successfully by hydrate of chloral. Dr. Thomson's first case was that of a girl, aged 12 years, who enjoyed perfect health, with the exception of wetting her bed every night, and of having a frequent desire to micturate in the daytime. After taking one dose of fifteen grains of hydrate of chloral, the nocturnal symptoms were checked, and, after a fortnight's treatment by the same drug, the day symptoms also disappeared. The second case was that of a boy, aged 13 years, who for seven years had had nocturnal enuresis. This boy was also cured of this distressing malady after taking one dose of the medicine.

A short time after reading Dr. Thomson's note in the *Lancet*, I had an opportunity of putting this drug to the test in this affection. My patient was a girl, aged 15 years, who had wetted her bed every night for nine years. She was ordered fifteen grains of hydrate of chloral every night, and after taking the first dose of the medicine there was no return of the complaint. At the end of six weeks, she had had no relapse of her infirmity.

Being satisfied with the efficacy of this drug in nocturnal enuresis, I next resolved to try its value in a closely allied functional disorder, viz., nocturnal incontinence of semen. In many cases, both of nocturnal incontinence of urine and of semen, there is reason to believe that spasm is an important factor. As you are all aware, the bladder is furnished with two sets of muscular fibres—the detrusor urinæ and the sphincter vesicæ—the latter being the antagonist of the former. In a healthy person, these two sets of muscular fibres counterbalance each other; but under the influence of volition, as when we wish to micturate, the detrusor muscle can overpower the sphincter, which can be controlled by the will. In cases of nocturnal enuresis, the influence of the will on the fibres of the sphincter can, when the person is awake, enable this muscle successfully to oppose the spasmodic contraction of the detrusor urinæ, and thus prevent diurnal enuresis; but when the patient has gone to bed and fallen asleep, this controlling power of the will is lost, and thus the sphincter is unable to counteract the action of the detrusor, and as a consequence of this, the urine escapes from the bladder. In many cases of spermatorrhœa, also, Trousseau was of

opinion that the vesiculæ seminales entered into a state of erection, like the detrusor vesicæ muscle, and that semen was ejected in consequence of this excessive contractility. It is, also, by no means uncommon to find that persons, who are troubled with nocturnal incontinence of urine in boyhood, suffer from nocturnal incontinence of semen when they have arrived at the age of puberty; and occasionally the two affections may co-exist in the same person, as in a case which came recently under my notice.

A gentleman, aged 27, consulted me on February 1st, 1871, for nocturnal emissions and incontinence of urine. He had been troubled with the former for nine years, but had never wetted his bed before the previous night. He found the spermatorrhœa worse when in Cambridge, scarcely ever having passed a night without one or more emissions. He informed me that a brother who died had enuresis when a boy. The patient passed urine in a good stream; his bowels were regular; he had at times severe attacks of neuralgia. His health was completely undermined by the spermatorrhœa; he felt exceedingly feeble, and unable to exert himself either mentally or bodily. He had taken strychnia and other remedies without benefit. I ordered him fifteen grains of hydrate of chloral every night, and recommended him not to drink spirits at night, which he informed me he seldom did. On February 4th, there had been no return of the spermatorrhœa or of the inability to hold his urine during sleep. On February 22nd, my patient said he felt quite well, and had had no return of his complaint, which gratified him very much, as he was shortly to be married.

My next case was somewhat similar to the above, except that there was no difficulty in retaining the urine. The nocturnal emissions also occurred less frequently, and the patient had only been troubled with them for nine or ten months. The result of the treatment by chloral hydrate was quite as satisfactory as in the preceding case; and, as a proof that the medicine was really efficacious, I may state that the patient one evening forgot to take his medicine, and the consequence was that his infirmity returned.

Whenever, therefore, there is reason to believe that nocturnal urinary and seminal incontinence are due to spasm (not the result of irritation reflected from a fissured anus, worms, urinary calculi, congenital phimosis, or of structural disease of the walls of the bladder, etc.), hydrate of chloral will be found a most serviceable drug in their treatment, in consequence of the acknowledged power of this drug of allaying spasm, as observed in tetanus and other spasmodic disorders.

If I were asked what advantages I claim for hydrate of chloral over belladonna in the treatment of these affections, my answer would be: 1. That the effect of belladonna is not so immediate, frequently taking weeks to produce any marked control over the disease; whereas the influence of chloral hydrate is most rapid, the malady frequently disappearing after the first dose of the remedy. This quick improvement cannot be over-estimated in the treatment of these affections, upon which the mind exerts a powerful influence. 2. That belladonna sometimes induces profuse diarrhœa, a result which I have never known chloral hydrate to produce. 3. That belladonna, when pushed to the extent to which it is necessary to be really efficacious, not infrequently impairs vision, etc., which is not the case with chloral hydrate. 4. That belladonna has, in my hands, on several occasions failed to be of any service.

Of course I am aware of the fallacy of the reasoning *post ergo propter*; but, on theoretical grounds alone, I am of opinion that a more extended trial of the chloral hydrate in these affections will establish the therapeutic value which is claimed for it.

There is one other point in connection with nocturnal enuresis which has interested me very much, and that is the close similarity between this affection and epilepsy; indeed, nocturnal enuresis might, without any great error, be called epilepsy of the bladder. I will, therefore, conclude my remarks by stating the points in which I think the analogy holds.

1. Enuresis and epilepsy are both markedly hereditary, and one neurosis may be transformed into the other; patients who have had incontinence of urine in youth sometimes becoming epileptic after puberty.

2. Both affections are influenced by the same system of nerves—the sympathetic, which may, under certain circumstances, induce spasm in the muscular fibres of the small arteries of the brain, as it does in the unstriated muscular fibres of the detrusor vesicæ muscle.

3. Belladonna is of service in the treatment of both these affections, and probably acts by its influence on the sympathetic.

4. Epilepsy may be either essential or due to reflex irritation, and so may nocturnal enuresis.

I have not tried hydrate of chloral as a remedy in epilepsy; but I am of opinion that it will be found useful in the treatment of some forms of this affection.

ON THE MORTALITY OF THE GOVERNMENT CONVICT PRISONS OF ENGLAND.

By J. D. RENDLE, M.D.,

Medical Officer of the Government Prison, Brixton.

THE accompanying tables are designed for the purpose of giving a general idea of the mortality-rate of male and female prisoners under sentence of penal servitude. The facts thereon recorded are gathered from materials which, in past years, have been collected yearly for future publication. Details, therefore, have been avoided; but it is hoped that the evidence conveyed in the following forms will prove that the

"unworked mine" referred to in the BRITISH MEDICAL JOURNAL, on the 24th December, has not been entirely neglected.

The late Sir Joshua Jebb broke up "the hulks" towards the end of the year 1856. Since then, all prisoners under sentence of penal servitude have been confined in prisons. In the Public Works Prisons the men work in the open air, but take their meals and sleep in separate cells.

The first table gives the yearly mortality of the prisons since the abolition of "the hulks," together with the number of deaths from each of the diseases mentioned. The number of insane cases yearly per 1,000 prisoners is also given. It ought to be stated that, of necessity, typhus and typhoid fevers are included in the column for "fever." Acute and chronic bronchitis and cancer are returned in the same way. The yearly reports from which I obtain my information, make no dis-

Table I.

Year.	Class of prisoners.	Daily average number of prisoners.	Number of Deaths.							Deaths per 1000 Prisoners.*				Percentage of deaths from phthisis on the total number of deaths.	*Insane removed to lunatic asylums, per 1000 prisoners.
			Total number: all causes.	Sui- cides.	Phthisis.	Fevers: Typhus and typhoid.	Bronchi- tis, acute and chronic.	Cancer.	Other diseases.	All causes.	From phthisis.	From fever.	From acute and chronic bronchi- tis.		
1857	Males.	6219.1	63	2	28	Nil.	3	2	28	10.1	4.5	Nil.	0.48	44.4	3.0
	Females.	923.3	14	—	8	"	1	—	5	15.1	8.6	"	1.08	57.1	6.5
1858	Males.	6343.4	104	—	51	"	1	—	52	16.3	8	"	0.15	49.0	2.2
	Females.	1043.4	18	—	11	"	1	—	6	17.2	10.5	"	0.9	61.1	3.8
1859	Males.	6069.3	69	1	26	2	4	1	35	11.3	4.2	0.32	0.65	37.6	5.6
	Females.	1188.6	11	—	6	Nil.	—	—	5	9.2	5	Nil.	Nil.	54.5	5.8
1860	Males.	6050.2	77	1	29	"	10	—	37	12.7	4.7	"	1.65	37.6	6.1
	Females.	1269.3	19	1	4	1	2	1	10	14.9	3.1	0.75	1.5	21.0	1.5
1861	Males.	5783.7	65	—	19	Nil.	7	2	37	11.2	3.2	Nil.	1.2	29.2	2.9
	Females.	1204.6	11	—	7	"	—	—	4	9.1	5.8	"	Nil.	63.6	1.6
1862	Males.	5775.2	53	—	19	"	2	2	30	9.1	3.2	"	0.3	35.8	3.5
	Females.	1211.2	8	—	3	"	—	—	5	6.6	2.4	"	Nil.	37.5	2.4
1863	Males.	5999.2	90	1	46	"	3	1	39	15	7.6	"	0.5	51.1	9.1
	Females.	1303.1	21	—	9	"	—	2	10	16.1	6.9	"	Nil.	42.8	1.5
1864	Males.	6153.5	89	4	33	1	5	5	41	14.4	5.3	0.16	0.80	37	8
	Females.	1274.2	27	—	15	1	—	—	11	21.1	11.7	0.78	Nil.	55.5	3.9
1865	Males.	5983	110	5	50	6	4	—	45	18.3	8.3	1	0.6	45.4	2.2
	Females.	1248.3	15	—	8	—	1	1	5	12	6.2	Nil.	0.8	53.3	3.2
1866	Males.	5941.3	103	2	41	Nil.	6	2	52	17.3	6.9	"	1.0	39.8	3.5
	Females.	1017	18	—	8	"	1	—	9	17.6	7.8	"	0.9	44.4	4.9
1867	Males.	6095.2	90	2	28	2	1	3	54	14.7	4.5	0.32	0.16	31.1	5.2
	Females.	1007.7	12	—	5	Nil.	1	—	6	11.9	4.9	Nil.	0.9	41.1	1.9
1868	Males.	6592	79	3	28	1	3	1	43	11.9	4.2	0.15	0.4	35.4	3.3
	Females.	1104	12	—	2	Nil.	—	3	7	10.8	1.8	Nil.	Nil.	16.6	7.2
1869	Males.	7210.23	99	—	47	"	4	1	47	14.1	6.7	"	0.5	47.4	2.1
	Females.	1184.7	15	—	6	"	1	—	8	12.6	5	"	0.8	40	2.5
Mean of the thir- teen years	Males.	6133.86	83.92	1.61	34.23	0.92	4.07	1.53		13.64	5.52	0.15	0.69	40.1	4.36
	Females.	1152.26	15.46	0.07	7.07	0.15	0.61	0.53		13.4	6.13	0.12	0.53	45.3	3.6

* These calculations are made on the daily average number of prisoners.

tion of the varieties of these diseases, and I am therefore unable to do so.

The second table gives the mortality for the five years previous to the breaking up of the hulks. During that period the daily averages were: Men on board the hulks, 1,292.6; ditto in convict prisons, 4,648.3.

Table II.

Five years, 1852-6.	Daily average number of prisoners (mean).	Average number of deaths yearly.	Deaths per 1000 yearly, calculated on the daily average number.
	5940.9	109.8	18.48

By comparing the mean mortality of the first and second tables, we find that since the hulks were abolished, there has been an annual decrease in the death-rate of 4.84 per 1,000.

The third table gives the fatal diseases and the mortality per 1,000 of boys under sentence of transportation and penal servitude in Parkhurst

Prison, during the eleven years 1853-63. This establishment was closed for juveniles at the end of 1863. The boys, on reception, were under 15 years of age.

Table III.

Mean daily average number.	Number of deaths.	Number of Deaths from each disease.									Percentage of deaths from phthisis on the total number of deaths.	Insanity.
		Phthisis.	Caries of spine.	Albuminuria.	Dropsy.	Pericarditis.	Scrofula.	Leucocythemia.	Fevers: typhus.	Accident.		
386.54	19	4.46	8	1	2	2	1	1	1	1	42.1	1

In the fourth table, I have endeavoured to show the amount of disease which existed at the time of conviction, or rather, on recep-

tion into the Government prisons, and the number removed to invalid prisons during each year. I can only include in this table the seven years 1862-8.

Table IV.

Year.	Daily average number of male prisoners.	Total number of invalids removed to invalid prisons.	Suffering from phthisis.			From other diseases, etc.		
			Existing on reception at the prison whence removed.	Not existing on reception.	Total number removed.	Existing on reception at the prison whence removed.	Not existing on reception.	Total number removed.
1862.	5775.2	454	52	28	80	210	77	365
1863	5999.2	415	49	42	96	233	57	319
1864	6153.5	444	65	24	90	215	118	354
1865	5983	342	20	27	51	138	132	291
1866	5941.3	248	19	15	49	34	78	153
1867	6095.2	443	40	10	50	266	127	393
1868	6592	439	40	13	53	351	35	386
Mean of seven yrs.	6077.05	397.8	40.7	22.7	63.2	206.7	89.1	323

A great deal of time and labour has been spent in endeavouring to distinguish diseases which existed previously to conviction from those which began when under sentence. I am, however, obliged to give only approximate returns on these points. The removals to invalid prisons are to a certain extent regulated by the accommodation of those prisons; and consequently, there are feeble and invalid prisoners in almost all the prisons. During the long sentences of penal servitude, prisoners are also of necessity frequently transferred to the different convict prisons, and the medical officer of each prison has been obliged hitherto to record in his annual returns the condition of the prisoners on the date of reception at the prison of which he is in charge, without any reference to the state of health on first transfer to the Government prisons. Hence has arisen the difficulty of distinguishing diseases which originated during the sentence from those which began prior to the sentence. The totals of invalids removed, given in Table IV, are correct; but the columns "existing on reception, and not existing, etc.," represent those men only whose condition of health was recorded when received from the county and borough gaols.

The tables of the annual returns have recently been so arranged as to record the health of every prisoner on first reception into the convict prisons. I am not, however, sanguine of any practical benefit from this change. I have long been convinced, and I have repeatedly stated the conviction, that an annual medical report is wanted which shall embrace the sanitary condition of the seven thousand convicts in the aggregate; and which ought to distinguish all diseases, fatal or otherwise, arising in the prisons during the year, from diseases which are not consequent on, and which do not originate during, imprisonment. Detached medical reports cannot give a valuable annual record of the diseases of these prisoners; nor can they furnish that aid to the general management of the prisons which sanitary science ought to give.

Before concluding this paper, I am anxious to state a few facts in reference to the deaths in the prisons from phthisis pulmonalis and fevers. The large number of deaths from phthisis given on the tables will be sure to arrest attention. I have purposely given prominence to the columns set apart for the records of this disease. These deaths in prison occur mostly to habitual criminals—men and women who have lived in crime from childhood. During 1869, I obtained permission to examine into the previous history of the men and women who died of consumption in the convict prisons during the seven years 1862-8. There were 295 deaths from this disease during that period—men, 245; women, 50. Seventy-two of these prisoners had no record of previous convictions; the remaining 223 had received 1,211 sentences.

The deaths from consumption in the convict prisons have been, I believe, less than half the number per 1,000 yearly, during the last thirteen years, than they were twenty years ago. During the time I was in medical charge of Milbank Prison with the late Dr. Baly, the mean mortality in that prison from consumption for the three years 1847-9, was 18.6 per 1,000 men.

With reference to fever: the condition of the prisons as regards deaths from fever is very marked when compared with former years. During the period above named (the three years 1847-9), the deaths of men from fever yearly in Milbank were 9.9 per 1,000; and for the four previous years—1843-6—4.37 per 1,000; or, respectively, 99.0 and 43.70 in every 10,000; whereas during the last thirteen years (Milbank included), the deaths were in the proportion of—men, 1.50; women, 1.20, in every 10,000.

THE REGISTRATION OF SICKNESS.

By EDWARD T. WILSON, M.B.Oxon., F.R.C.P.,

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THE Royal Sanitary Commission has just pronounced in favour of a national registration of sickness—partial and incomplete, it is true, but at any rate the principle is affirmed; and it will now be for sanitary reformers to show the extent to which such a record can be carried without becoming a burthen to the rates or a serious tax upon the Exchequer.

The importance of a registration of sickness is acknowledged by all who feel any interest in the public health, or in the etiology, prevention, and treatment, of disease; but very much remains to be discussed and settled before the full bearings of such a measure, especially on medical practice, are realised or well understood. It is hoped that the following paper on the historical aspects of the question may be a help to those who wish to give it fuller consideration.

The lineage of an idea is perhaps as difficult to trace as the descent of a physical defect or a family feature. Links in the chain will always be wanting. Still the attempt may be made to note the salient points at which a prevailing thought, sometimes at long intervals, comes to the surface and appears in the literature of the day. For more than a century the desirability of a registration of sickness has been constantly present to men's minds in England, and numerous schemes have been proposed with a view to carrying it into practice. It formed a prominent feature in an "Essay towards the improvement of physick, in twelve proposals, by which the lives of many thousands of rich as well as the poor may be saved yearly. Humbly dedicated to the Parliament of Great Britain by John Bellers. London: 1714." A few years later, in 1732, Dr. Clifton, physician to the Prince of Wales, in his *State of Physic*, urges that "three or four persons of proper qualifications should be employed in the hospitals to set down the cases of the patients there from day to day, candidly and judiciously, without any regard to private opinions or public systems, and at the year's end publish these facts just as they are" (p. 171).

The reports of Willan in 1801, and of Bateman in 1819, on the diseases of London as affected by the changes of weather, were the types and forerunners of a long line of papers in the present century, which perhaps owe their immediate origin to the Association of which, in its more developed form, this JOURNAL is the organ and mouthpiece.

At the inaugural meeting of the Provincial Medical and Surgical Association in 1832, Sir Charles (then Dr.) Hastings, the founder of the Society, mentioned "increased knowledge of the medical topography of England, through statistical, meteorological, geological, and botanical inquiries", as one of the chief objects to be aimed at. "We are left", he says, "with little more than the bills of mortality from which we can extract any information on the state of the public health of a vast proportion of our most populous cities and countries"; and he urges "the investigation of the modifications of endemic and epidemic diseases in different situations and at various periods, so as to trace, so far as the art will permit, their connections with the peculiarities and occupations of the people" (Address of Dr. C. Hastings, *Transactions of the Provincial Medical and Surgical Association*, 1833). The immediate result of these words may be traced in a series of papers on medical topography which have no rivals in our literature: that on the Hundred of Penrith, by John Forbes, M.D.; and that on Bristol, by Andrew Carrick, M.D., and John Addington Symonds, M.D., in the year 1834, may be quoted in illustration. Would that the race had not died out! Passing to the year 1836, the close and inevitable connection between medical relief to the poor and a practicable scheme for the registration of sickness, is, for the first time, alluded to in "Some observations on the present condition of medical relief for sick paupers, with recommendations for an altered and improved system, by Nathaniel Rumsey of Beaconsfield, Robert Ceely of Aylesbury, and H. W. Rumsey of Chesham" (*Transactions of the Provincial Medical and Surgical Association*, vol. v). It is here urged that a report of all cases of disease treated by Poor-law officers shall be compiled and published periodically by a medical board.

The year 1842 was memorable for Mr. Chadwick's Report to the Poor-law Board on the sanitary condition of the labouring populations of England and Wales—a report based upon Poor-law records as well as registers of cases in dispensaries, hospitals, and other public institutions—not, be it remarked, on the mortality or causes of death.

Mr. Baker, in his Report on Leeds in 1843, expresses his sense of the

extreme value of a record of disease. "Of what immense advantage it would be", he says, "to have all medical charities placed under sanitary regulations, and responsible to the Home Office for their returns of cases admitted within their walls. . . . Such an universal register would in a few years render a first-rate service to everything relating to longevity, whether as connected with trades or occupations, of local influences and climate; and, as it would be quite inexpensive, the opportunity is lost without excuse." (*Local Reports on the Sanitary Condition of the Labouring Population of England*, p. 406.)

Before Lord Ashley's Committee on Medical Poor Relief in 1844, Dr. Walker of Huddersfield and Mr. H. W. Rumsey brought forward the most convincing arguments (Evidence, 9154-9155) in favour of an annual report of sickness in charitable and public practice, to be drawn up in each Poor-law union by some medical authority, but without avail: nor did a practical and suggestive paper by Mr. J. Liddle, "On the Connection between Medical Poor-law Relief and the Sanitary Condition of the People" (*Journal of Public Health*, Feb. 1848) appear to have produced more effect. It contains strictures, true now as they were then, on the injurious working of our Poor-laws, as well as amended forms for the weekly reports of the Poor-law officers, in which the details of disease, its nature, duration, and issue, were to find a prominent place.

In the year 1850, the study of epidemic disease derived considerable impetus from the formation of the Epidemiological Society. Statistics were collected respecting the outbreaks of cholera and diphtheria; and in October 1853 the subject was warmly taken up by certain members of the British Medical Association, to whom we owe the first practical effort, on an extended scale, to connect meteorological phenomena with the progress of disease. For three years a weekly summary of sickness and meteorological observations was obtained from certain fixed stations throughout the country. These stations were Wakefield, Haverden, Grantham, Bedford, Uckfield, Exeter, Ryde, and Guernsey. (*ASSOCIATION MEDICAL JOURNAL*, October 7th, 1853.)

In the year 1854 another effort was made to ascertain "the progress of the chief epidemic diseases at given points of latitude and longitude, their prevalence according to season, the relative duration of each form of disease, and the order in which each epidemic followed another". (Facts and Suggestions on the Registration of Disease, by Benjamin W. Richardson, M.D.; *Social Science Transactions*, 1861, p. 535; also papers on the same subject before the Epidemiological Society, 1855, and in the January number of the *Sanitary Review* for 1858.)

Through the pages of the *Sanitary Review*, Dr. Richardson was enabled to open communication with busy medical practitioners in all parts of the country, and to avail himself of the valuable information which they could collect. Commencing with twelve informants in 1854, he was in 1858 receiving reports quarterly not only on the occurrence of certain forms of epidemics, but also on the meteorology, diseases in the lower organisms, and general sanitary conditions, of no fewer than forty-four stations, extending from the Shetlands to the Scilly Isles (*Sanitary Review*, vol. 1, p. 55.) The expense of transmission and printing was of course considerable, and led to their abandonment in 1858; but so impressed was Dr. Richardson with their value that he again and again, in the articles above referred to, urged their being continued through the agency of the Poor-law medical officers; and a scheme was matured, which will be noticed further on, for a complete registration of epidemic disease, and, later, of all diseases throughout the whole of England.

The idea of utilising the vast storehouse of facts relating to private practice had occurred to Dr. W. Farr in 1845 (*Annual Report of the Registrar-General*, 1845), and a suggestion on the subject accompanied the Statistical Nosology, which was distributed to the profession in that year. It was again urged in the pages of the *Sanitary Review* for 1855, by Dr. Robert Druitt (On the Daily Registration of Facts by Medical Practitioners, *Sanitary Review*, vol. 1); and it is stated to have been carried out successfully in Philadelphia, according to the suggestions of Dr. Henry Hartshorne, without breach of professional confidence or violation of domestic privacy.

In the following year (1856) a masterly review of public health organisation in England appeared in Mr. H. W. Rumsey's *Essays on State Medicine*; and among the chief desiderata is mentioned "public registration of disease, a record which would apply equally to sporadic attacks and to epidemic visitations, which would include all the local and physical circumstances connected with sickness. The corps of district medical officers is in most respects, and might become in all points, excellently qualified for forming the basis of a state registration of disease." (*Essays*, p. 278.)

Thus far there had been no attempt at any systematic record of cases of disease. Public information had been acquired by sporadic and necessarily imperfect inquiries, such as have been already noticed, from private sources and from the mortuary records, on which "Jack o'Lan-

tern figures legislative enactments affecting the comfort, health, and liberty of millions of people are based." (*On Certain Fallacies of our National Mortuary Returns*, by Alfred Aspland, 1857.)

The officers of health, however, wanted more. Early intimation of infection was essential to the effective adoption of preventive measures. Comparative tables alone could give the true measure of preventable disease. To this want we owe the admirable tables issued weekly and quarterly during the years 1857-58 by the Metropolitan Association of Medical Officers of Health, a body which quietly and unostentatiously has done more for Public Health in England than Societies with greater names and louder pretensions.

During the first quarter of 1858, 127,722 new cases of disease occurring in public and charitable institutions in London were recorded by the voluntary co-operation of no less than two hundred medical contributors; but the expense of publication proved too great for private effort, and the plan was abandoned.

From the year 1859 to the present time, a national registration of sickness has claimed the unremitting attention of those Societies which concern themselves with the Public Health. In two valuable and suggestive papers read before the Social Science Association at Bradford in October 1859 (The Right Use of Records founded on Local Facts), Dr. Rumsey gave shape and form to that which was uppermost in the minds of many, and obtained a Committee for the consideration of our registration system, with especial reference to returns of disease. This Committee passed resolutions that (Resolution 1) "it is desirable to combine with the superintendence of the registration of births and deaths that of sickness attended at the public expense, and as far as possible that of sickness attended at public institutions"; that (Resolution VII) "a quarterly summary of the deaths and sickness in the district shall be published by each superintendent registrar for the instruction of the local and public administrative bodies;" and that (Resolution X), "in local reports of mortality and sickness, it is important that the returns should specify age, occupation, and class." These resolutions were, in May 1868, adopted by the Council of the Association, and urged upon Government as the soundest basis for the system of registration then about to be inaugurated in Ireland.

An influential deputation was also appointed to open communications on the subject with the Government, the Registrar-General, and the Poor-law Board; but these efforts seem to have produced little effect beyond drawing public attention to a national want, and giving shape to a demand which cannot much longer remain unsatisfied. The sympathetic pen of Dickens was also enlisted in the cause, and joined "in the demand for a registration of sickness that has not a fatal end, as well as for a more effective registration even of the births and causes of deaths themselves; let us have lists of the killed and of the wounded too." (*All the Year Round*, No. 86, p. 228.)

In 1861, "The Statistics of Disease among the Pauper Population of England and Wales" formed the subject of a memorial addressed by the Epidemiological Society to the Right Hon. C. P. Villiers, M.P., President of the Poor-law Board; and the importance of monthly reports to the Poor-law Board and to the Privy Council was strongly urged, on the grounds that insanity and idiocy were the only chronic ailments and incurable infirmities which render the poor chargeable to the rates, of which we have any knowledge; whilst it seemed established that at least three-fourths of all actual paupers become so, directly or indirectly, by disease.

In 1862, the British Medical Association returned to the charge with eleven resolutions proposed by Mr. H. W. Rumsey and seconded by Dr. B. W. Richardson, which had a direct bearing on an Act for the Registration of Births, Deaths, and Diseases in Ireland; and the Social Science Association, in a resolution proposed by Dr. W. Farr and seconded by Dr. Milroy, urged that "in England measures should be adopted for obtaining the same information respecting the civil population as is now obtained respecting the diseases of the army and navy; and that the Council of the Association be requested to bring the resolution under the notices of the Colleges of Physicians and Surgeons, as well as Her Majesty's Government."

Meanwhile, voluntary efforts were being made in more than one direction to secure for limited areas what the State persisted in denying to the country at large. The Manchester and Salford Sanitary Association commenced a series of weekly returns, including epidemics and acute diseases, in 1861 (their first Annual Report appeared in 1862)—a series which has completed its first decade without break or blank in the returns, to the infinite credit of all who have contributed to the result (*BRITISH MEDICAL JOURNAL*, December 3rd, 1870); and a little later, in 1864, the Northumberland and Durham Medical Society adopted a somewhat similar plan, which, under the able supervision of Dr. Philipson, has met with marked success. [I regret to find, by Dr. Philipson's last Report, that this very complete system of sickness-

registration has failed, as others before it have done, from want of funds and want of support.]

In the year 1866, the Committee of the British Medical Association on the Observation and Registration of Disease reported in favour of voluntary Associations for the purpose—such as were stated to be already established at Manchester, Newcastle, St. Marylebone, Liverpool, Preston, and Birmingham; and urged the adoption of some common form of report to be sanctioned by the Parent Association. (BRITISH MEDICAL JOURNAL, Aug. 25th, 1866.) Such form was issued without delay, and adopted by the Societies at Newcastle and St. Marylebone. My inquiries respecting Birmingham and Preston have, unfortunately, been without result.

In Liverpool, the health-officer, as I learn from Dr. Trench, receives daily and weekly reports from the vestry-clerk, from dispensaries and private practitioners, of the occurrence of certain classes of disease; but a systematic classification of sickness is unknown, if we except a very admirable report drawn up annually from the district returns of the Training School and Home for Nurses, an institution which for nine years has carried on its work of usefulness among the sick poor, supplementing medical aid with skilled advice and material assistance when it was found to be required.

In the same year (1866) occurs Dr. W. Farr's memorable proposal for the appointment of registration medical officers to supervise the mortuary returns (Twenty-seventh Annual Report of the Registrar-General)—a proposal which was at once adopted by the Committee of the British Medical Association, who assured him of their hearty co-operation in pressing it to a successful issue. At the same time, it was suggested—and this met with Dr. Farr's cordial approval—that the same officer would be the suitable "authority for collecting and publishing periodical returns of disease obtained by local Associations; and that the districts for the registration of disease should be based on the divisions of the country for the registration of births, deaths, and marriages." (BRITISH MEDICAL JOURNAL, Nov. 3rd, 1866.)

Passing to the year 1868, the British Medical and Social Science Associations are found uniting in a Joint Committee on State Medicine, and presenting with their common memorial a memorandum, drawn up, it is understood, by Dr. Rumsey, in which periodical reports on all cases of disease "treated at the public expense, with their causes and results, and more minutely and frequently during outbreaks of epidemics," find a prominent place. (Memorandum to be submitted to Her Majesty's Ministers and to Members of Parliament by those who are promoting an organisation of skilled Medical Officers of Health and Medical Jurists in Districts for purposes of State Medicine—April 1868.)

The answer to this memorial has but just appeared in the Report of the Royal Sanitary Commission. By repeated discussion, the subject had become narrowed, and the aims of its promoters more definite. The Poor-law Board had come to be regarded by all parties as the chief agent in any registration scheme, but the frequency of the returns, their destination, form, and even their object, were to be hotly disputed by the champions of rival systems.

In November 1869, a deputation representing the St. Andrew's Medical Graduates' Association, the Medical Society of London, the Metropolitan Association of Medical Officers of Health, and the Poor-law Medical Officers' Association, waited on the President of the Poor-law Board with a memorandum "on the advantages to be derived from a registration of disease, and on the mode in which such a record can be obtained". The memorandum was based on the scheme already propounded by Dr. B. W. Richardson in 1856 (BRITISH MEDICAL JOURNAL, November 13th, 1869). The official reply was encouraging, but negative in immediate results.

Early in 1870, the subject was again brought into prominent notice through a paper read by Mr. James Lewis, of the Registrar-General's Department, before the Metropolitan Association of Medical Officers of Health, in which Dr. Richardson's plan was severely criticised, and a very practical scheme put forward, which, in a form subsequently modified and expanded to meet certain suggestions by Dr. Rumsey and others, has met with general acceptance.

At the Newcastle Meeting of the British Medical Association, much attention was given to the National Registration of Disease; and the Report of a Committee advising weekly returns was adopted. Since then, the medical journals have discussed the subject in a fair and practical spirit, whilst the very general feeling of Mr. Simon and others, as expressed in their evidence before the Royal Sanitary Commission, in favour of sickness-registration, leaves little doubt that in some form or other this great boon will very shortly be granted to the country (Evidence, Royal Sanitary Commission, vol. i, Q. 1910).

The last public effort to move the Government on the subject of a registration of sickness was in October of last year, when a joint depu-

tation from the British Medical Association and the Poor-law Medical Officers' Association waited on the President of the Poor-law Board, and pleaded their cause. Mr. Göschen's reply was extremely favourable, but the whole subject was deferred until the Royal Sanitary Commissioners had published their report.

NOTES ON A CASE OF ACUTE ATROPHY OF THE LIVER.

By GEORGE CLEMENTS, Esq.,

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ACUTE atrophy of the liver being a disease rarely seen in this country, I propose briefly to enumerate the symptoms observed during life, together with the *post mortem* appearances, of a case which came under my observation some time since.

In May 1865, a girl aged 17 presented herself in the medical out-patient rooms of the Manchester Royal Infirmary, being at that time deeply jaundiced, and complaining of drowsiness, mental depression, and general exhaustion. She informed me she had always enjoyed good health, had lived tolerably well, and had not been subject to over hard work. There was no history of syphilis, and she had been regular within a short time previous to the commencement of her present illness. A fortnight before I saw her, she experienced the first symptoms of the disease, and observed a yellow tinge in her skin and conjunctivæ. These appearances followed almost immediately after a *severe fright*. From the commencement of the attack the bowels had been very much constipated, the urine also being thick, and loaded with bile-pigments.

On examination, the liver did not extend to its usual limits, while there was some amount of tenderness over the hepatic region. She was ordered mild mercurials, together with aperients, and an application of equal parts of extract of belladonna and mercurial ointment to the hypochondrium.

On her next visit she expressed herself better. The jaundice was not so marked, and the drowsiness had to some extent disappeared. The bowels acted daily, the evacuations containing small quantities of bile. She was ordered to continue the treatment as before, with the addition of small doses of nitro-muriatic acid twice a day. At this time there was no perceptible change in the size of the liver.

She came again the day following, when it was evident that her condition had altered considerably for the worse. There was no apparent cause for this sudden change, the mother having informed me she had adhered most closely to the rules laid down for her guidance. On this occasion the jaundice was of a much deeper colour; she had persistent vomiting, the stools were very hard and clay-coloured, and she was somewhat delirious.

She was taken home and immediately put to bed, when violent symptoms rapidly supervened. The jaundice became more and more marked, and vomiting continued; constipation and delirium of a very furious character followed. The hepatic dulness was now noticed to be less than at the last examination, and its limits were marked out, so as to detect any further diminution. The urine at this time was very concentrated, and contained a large amount of biliary elements. Microscopic examination revealed numerous and most perfect crystals of tyrosine. All the symptoms above mentioned became intensified, and the patient died in a state of coma on the third day after the active stage set in.

The necropsy was performed the following morning. The rigor mortis was well marked, and the body everywhere deeply jaundiced. All the organs were perfectly healthy except the liver, and this was so altered in appearance that one could scarcely recognise it. Considerably reduced in size, and weighing only thirteen ounces, it closely resembled a piece of stale meat. The capsule was opaque, and the parenchyma flabby and atrophied. All the bile-ducts were quite free from any obstruction; and the gall-bladder, although reduced in size, contained a small quantity of thick dark-coloured bile. On subjecting the liver to a microscopic examination, not a single perfect hepatic cell could be detected. Here and there a cell in process of absorption could be seen, but all traces of true hepatic structure had disappeared. The rectum was full of hard clay-coloured fæces, and the bladder contained a small quantity of thick urine, similar to that passed during life.

THE GERM-THEORY.

BY D. W. WILLIAMS, M.D., M.R.C.P. LOND.,
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PHYSIOLOGISTS and controversialists of justly distinguished eminence, both at home and abroad, have recently been engaged in the most abstruse research relative to the solution of that difficult problem, the "germ-theory," and as an inevitable sequence, "spontaneous generation." The press also, medical and general, has taken the matter up vigorously, and fully discussed the merits of both sides of the question with undoubted zeal, ability, and impartiality; obviously, however, without arriving at any definite conclusion. The subject at issue remains much in the same obscurity as from the remotest periods, although I believe I am justified in asserting that, at various epochs in the last two successive centuries, it has attracted the attention of *savants* of all civilised nations.

It is true that Professor Huxley, whose name is a tower of strength in natural science, has negatived the sweeping doctrines, or more properly hypotheses, advanced by Lister, Tyndall, Pasteur, and others, by sound logical deduction rather than by positive demonstrative proof. I am not in a position, even were it expedient, to analyse minutely the various methods pursued by individual experimenters and explorers, in arriving by complicated scientific processes at their own conclusions and views on this head. These, I doubt not, are known to most of the readers of the JOURNAL. Suffice it to say, that the advocates of the "germ-theory of disease" are those who also obviously support the theory relative to spontaneous generation. I hope, however, by a very simple process, to show the fallacy of these theories.

The source whence I advance my refutation is simply in an egg-shell. It is well known that an egg, when exposed to the atmosphere for some time, absorbs air, becoming, what is familiarly termed, addled; all its contents undergoing putrefaction, and becoming a homogeneous mass, which, under favourable circumstances will, if the shell keep intact, remain in this condition for an indefinite period. From the density of the shell, and all but impervious texture of its lining membrane, which is firmly attached to it throughout, excepting at the larger end, where there exists a small space containing air *ab initio*, the air must be in a very rarefied, and if I may so term it, *filtered* state. Eggs may be preserved for any length of time—a fact well known in commerce—if rendered impervious to air by smearing over with lard, or any other unctuous varnish.

I have, since this idea suggested itself to me, placed an egg, which from reliable information I believe to have been addled at least six months, for more than a fortnight in water, where it floated buoyantly from the presence of air, and have marked the water-line, and also accurately weighed the egg before and after immersion. I have found from the exact correspondence of both tests, that no endosmotic or exosmotic action whatever had taken place; thus proving beyond question that, if impervious to the least particle of water, it must *à priori* present the same impediment to any germinal matter brought into contact with it. The offensive foetor of a broken addled egg is familiar to most of us; yet the egg alluded to, of course with its shell intact, does not emit the slightest possible odour—a further proof of its impermeability.

It is clear that in the egg there can originally exist no germs, the alleged cause of putrefaction; excepting, of course, its germ proper, which in all probability loses vitality from the moment when air penetrates and putrefaction has set in. I think it will be conceded on every side, from the physical conformation of this hermetically sealed little chamber, that no germs can enter from without, even assuming that germs of a non-spontaneous origin were essential to the process adverted to; granted, also, that this homogeneous fluid were transformed into some degenerate protoplasm. How is it that, although composed of the very primary elements originally intended for the generation of organic life, and *à priori* a pabulum eminently fitted for that process, with other favourable conditions, it does not produce some higher developed visible organism? Failing this, the maxim, "*Omne vivum ex vivo*," must, I think, be conclusively established.

Putrefaction, briefly, I conceive to be due to the destructive chemical action of air on disorganised animal and vegetable tissue, resolving it into its predestined primitive element, "the dust of the earth." In the course of this process, favoured by local surrounding circumstances, in which doubtless chemical and electrical conditions play an important part, poisonous gases are evolved, becoming diffused through the atmosphere in a more or less concentrated form, and, assisted by predisposing influences, in their turn cause disease and death. That life re-

sists the influence is an accepted and incontrovertible fact; *ergo*, the very lowest grade of germ-life ought to resist putrefaction. It is obvious, therefore, that the received axiom of the germ-theorists carries with it its own contradiction, and at once confutes Professor Lister's theory respecting the action of carbolic acid on wounds. I believe it is to the exclusion of air, from its admixture with oil and other adventitious aids, that the beneficial effect of this much vaunted treatment is chiefly due, not to its alleged germ-killing properties. I do not, however, wish by any means to undervalue its deodorising and antiseptic qualities, which it undoubtedly possesses in common with many other drugs. It acts on the devitalised secretions of wounds and other putrefactive processes, much in the same manner as common salt does in preserving disorganised animal tissue. It acts also on the same principle as "Friar's balsam," which was extensively used of old in surgery, and is even to this day much used in veterinary surgery, but which gave way to the more improved principle of healing wounds by "first intention," by which is meant bringing together solution of continuity, and excluding air by the use of impervious textures, adhesive plaster, cerates, etc. Hence it will be observed, that Mr. Lister's system is simply a revival of a very ancient practice; but he ascribes to it a novel and extraordinary action, ignoring altogether, in my opinion, the action of other important elements in the treatment, viz., air-proof textures, etc., on the accurate application and adjustment of which he lays much stress. The proper application of these, to the exclusion of the irritating germ-killer, would, I believe, in most cases of incised wounds, lead to more favourable results. I would not, however, consign carbolic acid to the same superstitious use allotted to Sir Kenelm Digby's "sympathetic powder," for I must confess that, when used judiciously, in appropriate cases, it possesses valuable properties.

Traditional superstition has handed down to us many excellent hints, remedies, and forms of practice, evidently having for their origin sound scientific principles, at a period when medical science flourished, anterior to the dark ages. Amongst these may be mentioned, the old method, not to be despised, of applying a cap of lint covered with ointment, over a well strapped stump after amputation. Ointments of every description, judiciously selected for different classes of ulcers, etc., have all for their therapeutic action, principally, the exclusion of air, and in my humble opinion are, in appropriate cases, preferable even to the much vaunted water-dressing.

The most remarkable superstition of all, however, bearing in a very singular manner on the question at issue, I cannot do better than introduce here. Sir Kenelm Digby, Knight, possessed a "sympathetic powder." Its nature, which he disclosed in 1608 to James the First, had been taught him by a Carmelite friar, who learnt it in Persia. It was composed of "calcined green vitriol." Whenever any wound had been inflicted, the powder was applied to the weapon that had inflicted it, which was, moreover, covered with ointment, and dressed three times a day. The wound itself in the meantime was directed to be brought together, and carefully bound up with clean linen rags, but above all to be left alone for seven days, at the end of which period the bandages were removed, when the wound was generally found perfectly united. The triumph of the cure was ascribed to the mysterious agency of the "sympathetic powder," which had been so cunningly applied to the weapon; whereas, it is scarcely necessary to observe, that the rapid cure depended upon the total exclusion of air from the wound, and upon the healthy operations of nature not having received any disturbance from the officious interference of art. The result beyond doubt furnished the first hint, which led surgeons to the important practice of healing wounds by "first intention."

Poets of the period frequently alluded to this superstitious practice. Thus—

"Anoint the sword which pierced him,
With the weapon salve, and wrap it close from air,
Till I have time to visit it again."—DRYDEN.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE VII.—Friday, March 3rd, 1871.

Carnivora.—The animals of this order are not all exclusively flesh-eaters; some feed almost entirely on vegetables. The name, however, is retained as expressing a certain type of structure. The *Carnivora* are divided into two sections—terrestrial and aquatic. Regarding their teeth, it is almost impossible to lay down any general statement, except that they have large pointed conical canines.

In the Terrestrial Carnivora, the canines are large; the incisors, especially the middle ones, are small, and, with a few exceptions, are six in number in each jaw. The teeth of the molar series are more or less provided with pointed cusps; anteriorly, they are generally compressed and pointed, while the posterior teeth are often tuberculated. The teeth are simple, having no folds of enamel, and being of limited growth.

The Terrestrial Carnivora were divided by Cuvier into plantigrade and digitigrade. This division, however, is objectionable; some cannot be placed in either group. The classification now adopted is into *Æluroidæ* (e.g., the Cat); *Cynoidea* (e.g., the Dog); and *Arctoidea* (e.g., the Bear).

The *Cynoidea* or Dog-tribe form the central or typical group, from which the others diverge. In the Dog and its allies, the dentition is almost typical as to number; the formula being $i \frac{3}{3}, c \frac{1}{1}, p \frac{4}{4}, m \frac{2}{2} = 42$. In a large extinct animal of the dog type, the *Amphicyon*, there was an additional upper molar, making the full number, 44. The special carnivorous characters are not so well marked in the Dog as in other animals of this order; the incisors are not so small, and the canines are less developed. The upper incisors present a sort of trefoil shape, less marked on the outer ones; the lower incisors have two cusps. The canines are compressed and conical, and have a strong antero-internal ridge, and one posteriorly. Among the molar teeth is one which has been described as characteristic, under the name of *carnassier* (Cuvier); this tooth can be traced through the order. In the upper jaw, it is a præmolar; in the lower, a molar tooth. The front upper præmolar has no predecessor; the fourth is the *carnassier* or sectorial tooth. It has a blade on the outer part, and in most Carnivora three cusps; the anterior of these, however, is little developed in the Dog. The hinder cusp has a very sharp edge, and has two roots: in addition, there is a small lobe on the blade, connected with a distinct root. Behind this tooth are two (sometimes three) true molars; they are very broad, and have many cusps. In the lower jaw, the præmolars present flattened compressed cones, with two or three accessory cusps. The first lower molar is the sectorial tooth. The blade is flat, and has two cusps, anterior and posterior, with a notch between them; behind it is a projecting portion, the heel or talon, with two cusps; on the inner side of the front cusp is a tubercle. This tooth is followed by two small tuberculated molars. The sectorial teeth work one on the other like the blades of a pair of scissors. The milk-teeth of the Dog resemble the permanent teeth on a small scale.

Nearly all the animals of the genus *Canis* have teeth formed on the same type, though they vary as to their food; the Italian Fox being a vegetarian, and the Arctic an animal feeder. In the domestic Dog, the teeth are very little changed from the type of the wild animal. The cusps are less pointed; and in the smaller Dogs the head and jaws have diminished more rapidly than the teeth, so that the latter are often crowded and placed obliquely. In the *Icticyon* of South America, a molar is wanted in each jaw on each side, making the total number of teeth 38. The *Otocyon* or Long-eared Fox of South Africa presents a curious modification in having an additional molar; the formula being $i \frac{3}{3}, c \frac{1}{1}, p \frac{4}{4}, m \frac{4}{4} = 48$. The sectorial tooth is smaller than the true molars, though retaining its typical shape. The true tuberculated molars are very large. It would seem as if this animal were less carnivorous than others of the group.

The *Æluroidæ* include the *Viverridæ*, *Hyænas*, and *Cats*. In the *Viverridæ*, represented by the *Civet*, the dental formula is $i \frac{3}{3}, c \frac{1}{1}, p \frac{4}{4}, m \frac{2}{2} = 40$. There is nothing special in the incisors and canines; the præmolars are like those of the Dog. The sectorial præmolar has a larger posterior lobe and root than in the Dog. The two true molars of the upper jaw are broader than in the Dog. In the lower jaw, the sectorial tooth is often difficult to recognise. The whole tooth is broader, and the front edge is very oblique; in some cases, as the *Ichneumon*, there are five cusps. In the *Benturong*, which, though a modified *Civet*-cat, is almost entirely a vegetable feeder, the teeth nearly lose the carnivorous character.

In the *Hyænidæ*, the jaw is short and broad, and the teeth massive and powerful, consisting of large cones rather rounded at the tops. The incisors are small, but the upper and outer ones are large. The sectorial præmolar nearly resembles that of the Dog. The true molars are reduced to a small rudimentary tooth, lying in the *Hyæna* inside the sectorial. In the lower jaw are three præmolars having each a large cingulum, and one true molar. The latter has the sectorial characters, but the heel and the inner tubercle are small. In the *Spotted Hyæna*, the lower sectorial molar is reduced almost to the blade. The dental formula of the *Hyæna* is $i \frac{3}{3}, c \frac{1}{1}, p \frac{4}{4}, m \frac{1}{1}$.

The *Proteles* or Earth-wolf of South Africa, an animal related to the *Hyæna*, has four teeth of the molar series in the upper jaw, and three in the lower; they are quite rudimentary, being little more than pegs. It has the ordinary number of incisors and canines. It lives on the

putrefied flesh of animals that have been killed or have died; it is said also to eat new-born lambs and the fat tails of the Cape sheep, but as to this there are various statements. The incisor teeth are often much worn, as is very commonly the case when the food is mixed with dirt or sand.

The genus *Felis*, comprehending the Lion, Tiger, and Cat, has the jaw shorter and broader than in the Dog. The incisors are small; the canines are large, and set far apart. The upper incisors are small, but the outer ones are larger. The canine teeth have a ridge along the anterior and inner edge, and a stronger ridge posteriorly. In young animals, the latter is serrated. The first præmolar is small; the second larger. The third is the sectorial tooth; the blade is long, and there are three lobes. The true molar is reduced in size, almost as in the *Hyæna*. In the lower jaw are two præmolars; the molar tooth is sectorial, but is reduced to the blade. The dental formula of the Cat is $i \frac{3}{3}, c \frac{1}{1}, p \frac{3}{2}, m \frac{1}{1} = 30$.

CLINICAL MEMORANDA.

TRACHEOTOMY IN YOUNG CHILDREN.

IN connexion with the correspondence on this subject in the *JOURNAL*, I may state that I have operated successfully on a child aged six months and a half. The case was one of croup, and a very serious one. The recovery was slow, but complete.

Edinburgh, April 1871.

JOSEPH BELL, F.R.C.S.Ed.

SINGULAR LUSUS NATURÆ.

THIS morning I delivered an infant with two excrescences, one on the inner side of each hand at the metacarpo-phalangeal joint. One was of the exact size, shape, and colour of a large white-heart cherry, with the raphe usually seen upon such fruit. I twisted it off this evening after turning it round fifteen or twenty times, and have preserved it. A very slight hæmorrhage occurred. I have delivered more than 2000 children, but have never seen nor heard of such a *lusus nature* before. The pedicle or stalk was about half an inch long. The other excrescence, which is much smaller, I intend to twist off in the same way in a day or two. The mother says she was born with two "apples," one on each hand, exactly in similar situations, which were removed shortly after birth; and the cicatrices are now very plainly to be seen.

Manchester, April 1st, 1871.

R. M. MANN, Surgeon.

REPORT ON A CASE OF EMBOLISM.

ON March 14th, 1867, when house-surgeon to the York County Hospital, I was called to see a woman who, I was informed, had died while being assisted into the hospital from a cab. I found her supported in a chair, quite dead. An inquest was held. She had suffered from influenza for two or three weeks, and had been but ill supplied with nourishment and stimulants.

I made a *post mortem* examination thirty-one hours after death. There were no external marks of violence. The legs were varicose, and on one of them she wore an elastic stocking. The veins on the surface of the brain were congested. There was some degree of serous effusion. The brain was otherwise healthy. The lungs, more especially the right lung, were congested. The pericardium was healthy. The heart was large and flabby, and covered on its external surface with much fat. The walls of the right cavities were thin, dilated, and engorged with black fluid blood. On each side was found a large fibrinous clot, evidently formed during life. That on the right side commenced as a large rounded mass of fibrine, as thick as the little finger, occupying the superior vena cava, passing into the right auricle, where it spread out in the form of an expansion an inch broad and one or two lines in thickness, which was adherent to the walls of the cavity, and connected by a pectiniform process with the auricular appendage. It then became constricted as it passed through the tricuspid valve, with which it was connected, and continued along the right ventricle and infundibulum into the pulmonary artery, to divide into two tolerably equal branches, one of which, in an arborescent form, accompanied each division of that vessel. To the wall of the left auricle was attached, in a similar way, a concretion of like shape, but smaller, which also derived a process from the auricular appendage, passed through and was attached to the mitral valve, continuing on as a solid rounded clot, to terminate in a fimbriated extremity a little beyond the aortic valves. The cardiac valves were very slightly diseased. The liver was large and congested. The stomach, intestines, and other organs, were healthy.

REMARKS.—This person had been for years in feeble health, doing probably more work than the state of her health justified, and without a sufficiency of good food and fresh air. I have observed that it is in this class of cases that embolism commonly occurs; and such might naturally be expected. In a case which I published in 1866, I traced the formation of such a clot in a man whose system was borne down. Embolism here appeared to be the mere auxiliary cause of death. In another which I published in the following year, it was not the direct cause of death, but materially assisted other co-existing diseases. In the present case, the concretions may, from their large size and firm consistence, be inferred to have been deposited for a considerable time, although how long it is impossible to say. They might at any moment have proved fatal, perhaps not from their sudden displacement, which their firm attachment to the heart's internal surface would be sufficient to prevent, but from the mechanical obstacle presented to the carrying on of the circulation by an already enfeebled heart. The hasty removal of the patient in a cab no doubt accelerated death. Although I formerly believed embolism to be a frequent cause of sudden death, as in the case of puerperal and parturient women, a more extended experience has led me to the conclusion that it is much more frequently, as in this case, the concomitant and adjuvant of chronic and exhausting diseases.

EDWARD DRUMMOND, M.D. Edin., M.R.C.S. Lond.
Oldham, March 1871.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

NOTES ON THE MEDICAL TREATMENT OF FIBROUS DISEASE OF THE UTERUS BEYOND SURGICAL INTERFERENCE.

It is difficult to call to mind any pathological condition the medical treatment of which has received more attention of late years from obstetric physicians than that known as fibrous disease of the uterus; and it may be as safely said that its therapeutics have been no less unsatisfactory and veiled in uncertainty. Since the disease was recognised clinically and pathologically, good observers have one after another come forward with evidence apparently satisfactory to prove that this or that article of the materia medica has an undoubted influence in causing absorption or diminution of fibrous tumours of the uterus; but, as in the treatment of most diseases the natural history of which is imperfectly understood, these so-called remedies were credited with more than was their due. The consequent reaction in opinion followed, and they either have fallen into disuse, or have come to be given with a hazy notion that they probably do in some way alleviate the disease, or with the more certain belief that they are advantageous in relieving one or other of the symptoms of the patient. It was with the idea of ascertaining what really are the opinions and practice of that branch of the profession under whose notice these cases more frequently come, that we undertook to collect the following notes, which will we think be read with interest. They largely bear out the opinion we have always entertained, that the therapeutics of the disease are uncertain and tentative, notwithstanding the asserted value of the salts of potassium, mercury, and other drugs. We shall be glad to receive pathological or therapeutical memoranda on the subject.

GUY'S HOSPITAL.

DR. J. BRAXTON HICKS considers that the medical treatment of fibrous tumours may be divided into—1, the promotion of absorption; 2, the restraint of their growth; 3, the promotion of expulsion; and 4, restraint of the bleeding which they cause. 1. Regarding absorption, Dr. Hicks confesses that he has never seen anything which could encourage one in the expectation of this result. He has given iodine and bromine, and bichloride of mercury, numberless times, without any diminution in the size of the tumour. He thinks those cases where the absorption has been said to have occurred must have been, with few exceptions, erroneously diagnosticated. But 2, with regard to the restraint of the growth of the tumours, he thinks that he has noticed fair results from the employment of iodides and bromides, given, of course,

over a considerable period. When the effect of these remedies on the testis and ovary is considered, it is not difficult to understand how these, by checking the impetus to the ovaries, tend to lessen the general engorgement and activity in the sexual organs. To this treatment should be added the recumbent posture during a portion of the day, and the avoidance of all kinds of pressure from external causes. 3. Sometimes much may be done to promote their expulsion by the careful administration of ergot. It may be given in doses of ten grains to half a drachm once or twice daily, infused in boiling water, and then drank, dregs and all. It may be continued for two or three days every monthly epoch; and it is of much service at this time where severe hæmorrhage is present. Dr. Hicks has seen more than twice an internural fibroid converted into a polypus, and thus rendered capable of being removed. It is well known that polypi have been expelled and dissevered by the action of the uterus alone. Ergot increases this power of the uterine force. Forcing pain is very likely to be caused or increased by this drug; but that is, of course, necessary. 4. The other medical treatment which may be necessary in a case of fibroid tumour of the uterus is to restrain the blood-loss. Recumbent posture, of course, is very essential during the loss. The hæmostatics which Dr. Hicks has found most reliable are gallic acid and ergot. Gallic acid is not of much use under twenty-grain doses two or three times daily, and secale in ten to fifteen grains at the same frequency. He has found that gallic acid, given during the intervals of bleeding, is very useful, coupled with cinchona, quinine, or other good tonics. Where much anæmia is present, he has found it well to give iron-alum, combined with gallic acid, twice a day, during the interval, changing to ergot or full doses of gallic acid at the "period". The mixture is something like ink, but it is clear. Its formula is, one grain of sulphate of iron, ten grains of sulphate of alumina, ten grains of gallic acid, five minims of dilute sulphuric acid, and five minims of chloric ether, in an ounce of peppermint-water. However, if the digestion be feeble, some of the blander kinds of chalybeates may be given, and the astringents at the monthly periods. Sometimes the hæmorrhage is so great that one or even two periods are absent; in this case, iron is indicated, but its omission is desirable as soon as the returning colour of the lips shows the improvement of the blood. There is another point which it is desirable not to overlook—namely, the state of the bowels and portal system. Constipation and congestion of the veins of the lower bowel are very apt to increase uterine hæmorrhage. The quietude necessary or imposed in this class of cases is very apt to produce this engorgement. Therefore, although strong purgatives are to be avoided, gentle laxatives are of much value. Dr. Hicks cannot say that he has seen much benefit from cannabis Indica, lately recommended in these cases.

Dr. J. J. PHILLIPS says that, after an extended trial, he cannot record any instances where a diminution in the size of fibroid tumours of the uterus has clearly resulted from any drug administered. Whether any medicines have the power to moderate their growth, he has found difficult to determine, seeing how slow is their usual progress. The cases of enlarged uterus which have, in his practice, become smaller from the use of the bromide of potassium, he has considered to be cases of general hypertrophy of the uterus, and especially in sterile women. The knowledge of the fact that salts of lime are occasionally deposited in uterine fibroids, as in other growths, coincident with a great reduction of their vital activity, has never induced Dr. Phillips to prescribe the medicinal preparations of lime with a view to add to such local deposits, or to effect a change in the vessels of the part. The objections to their use seem obvious. The fact, if such it be, that large uterine fibroids sometimes disappear insidiously, and in a short period (except in the puerperal state), is to Dr. Phillips inexplicable. There can, he thinks, be no doubt that the cases reported as such, many years ago, were instances of mistaken diagnosis—the existence of retro-uterine hæmatocele was not then known. To moderate the hæmorrhage attendant upon fibroid tumours of the uterus, nothing has appeared to him so efficient as small doses of the ergot of rye. He generally prescribes the powder, infused in water, when the hæmorrhage is severe. The ordinary astringents are also of value, gallic acid being that which he prefers. The bowels should be kept open. He has seen several cases where astringent vaginal injections used to check leucorrhœa, in cases of uterine fibroids have led to great increase of pelvic pain. If practicable, rest in the recumbent posture is very desirable during the menstrual periods, with a view to diminish the hæmorrhage, and to avoid other effects of increased congestion of the uterus. Dr. Phillips has now a case under observation in which there are two fibroid masses in the anterior wall of the uterus, and in which there always exists some difficulty in micturition, but this amounts to retention of urine at almost every period, if the patient goes about at that time. No less important than mechanical rest in these cases, is physiological rest so far as it can

be obtained. Cases are not uncommon in which fibroids have given rise to very little inconvenience until after marriage. He has seen several cases where a second marriage was undoubtedly the starting point of the troubles from which a patient with an uterine fibroid has dated. Should a fibroid tumour become strangulated in the pelvis, interfering with the functions of the pelvic viscera, gentle attempts should be made *per vaginam* to lift it up, but this should be done with great care. The dangers incident to an inflamed fibroid and its results are great.

GREAT NORTHERN HOSPITAL.

Dr. G. C. P. MURRAY, while admitting that cases of fibrous disease of the uterus may at times be successfully dealt with by surgical means, believes that by far the greater number of them fall under what may be termed medical treatment. Hæmorrhage is the most distressing symptom; and next to this is the discomfort, amounting sometimes to pain, in the pelvic region, from the abnormal size and weight of the uterus itself, or from the pediculated tumour attached to it. Bearing in mind that these tumours occur often early in life, and in some cases diminish considerably in size after the cessation of menstruation, some line of treatment which enables the patient to retain her strength ought all the more to be enforced. The treatment which Dr. Murray has found useful as regards the general health has been sedative, especially about and during the periods; avoiding excitement, fatigue, much walking or standing, or excess of clothing, especially about the loins, and not allowing constipation to take place. To control the bleeding, the patient should take at the commencement of each menstrual period, a mixture consisting of gallic and sulphuric acids, with the addition of ergot if necessary; with this, ice-water injections may be used both by the bowel and vagina, and solid ice itself placed over the uterus. Should, however, the sanguineous discharge be very great, the os uteri can be dilated and the interior of the uterus well rubbed over with a solution of iron; this may also with advantage be done once a week for some time. For the second distressing condition of matters, a pessary will often give relief, or a bandage adapted with pads will keep the moveable tumour in a more comfortable position. As to the particular value of any one agent in diminishing the size or arresting the growth of these tumours, Dr. Murray has not personally met with any which he can laud; but some few years ago he attended a lady in her confinement, for whom the late Sir James Simpson had prescribed the bromide of potassium; and at the time of her delivery, eighteen months after taking the bromide, the tumour, which was at the fundus of the uterus, and larger than an orange, had nearly if not quite gone. Dr. Murray still prescribes the bromide of potassium, with, in some cases, iodine combined, as a drug or in mineral waters, when the patient is not taking the astringent mixture.

THE HOSPITAL FOR WOMEN.

Dr. PROTHEROE SMITH, in accordance with the pathology of fibrous tumours of the uterus, when beyond the aid of surgery, has treated these diseases on the principle of helping forward those changes from the (1) primary albuginous or sarcomatous state to (2) the fibro-cartilaginous; and (3), finally, to that of osseous or cretaceous matter. Long observation shows this to be the natural order in which the disease becomes converted from the soft erectile, easily congested or inflamed, and growing or active tissue, into that denser, more compact, and less organised structure, incapable of congestion and inflammation, constituting the passive form. The primary indication of treatment, therefore, Dr. Smith believes, is to prevent hyperæmia from excitement or undue pressure, by abstinence from functional and other disturbance, and by rest in the recumbent posture, the pelvis being raised above the level of the heart; and by the pelvic band freeing the viscera from superincumbent weight, by carrying them posteriorly beyond the line of gravitation of the abdominal contents; by the application of cold water, used externally in a compress or otherwise, and *per vaginam* as a douche, with or without astringents, especially in cases in which the catamenia are in excess; and by giving internally gallic, tannic, and mineral acids, especially nitric and phosphoric, with phosphate of lime, tincture of nux vomica, strychnine, ergot with acetic acid, colchicum, digitalis, etc. In the spring and fall of the year, especially in the first stage, fibrous tumours of the uterus show a disposition to hyperæmia, congestion, and inflammation, and when these conditions are unrelieved, to increase in bulk generally, or, partially, to throw out additional growths. On these occasions, rest in the horizontal posture, leeching, abstinence from alcoholic stimulants and excitement, together with some of the above-named remedies, followed (when all swelling and abnormal heat have disappeared) by tincture of the perchloride of iron, will be found best calculated to check the disposition to increase in size, as well as, by reduction of vascularity, to

bring about the second stage of the disease. In this state, it distresses only by its mechanical irritation of adjacent parts. The disease being regarded as menstrual, with regard to the period of its occurrence after the cessation of the catamenia, Dr. Smith thinks that it rarely shows the same proneness to enlarge as may be observed beforehand; but, on the contrary, there is usually a disposition to shrink and become less vascular; therefore, if by the means indicated, and by the selection of a high and dry residence, one can tide over the menstrual period of life, a state of good health often follows, interrupted only, as far as the fibroid is concerned, when by mechanical irritation it incommodes adjacent organs. Of all the means of relieving such annoyances, Dr. Smith has found parietal sustentation the most eligible, and, to accomplish this, "the pelvic band" by far the most effective means.

Dr. ALFRED MEADOWS, in regard to the mere drug-treatment of fibrous tumours of the uterus which do not admit of surgical interference, feels very strongly that the sooner we abandon all idea of curing them, or of diminishing them by one hair's breadth, through any supposed absorptive power of medicines administered either by the mouth, by the skin, or by the vagina, all of which he has seen tried again and again, the better, in his opinion, will it be not only for our patients' health and comfort, but for our own credit and reputation as honest men and scientific physicians. It is, Dr. Meadows thinks, surprising that the proved inutility of drugs for this purpose has not long ago led to their abandonment; and, still more, that the outward application of such painful remedies as iodine liniment or ointment should yet be persevered with in defiance alike of reason, experience, and common sense. There are, he knows, some observers of great ability who believe in the disappearance of these growths. Dr. Meadows has never had the good fortune to witness such an occurrence, and he says he must own to having great doubts as to its possibility. But, be this as it may, he is satisfied that at present we are not in possession of any drug which can so influence the nutritional changes of the uterus and its morbid companion as to cause the slightest arrest in the growth of the latter, and, least of all, to promote its absorption. Any one who reflects upon the minute structure of these tumours, and their relation to the uterine tissue in or upon which they grow, and who at the same time estimates carefully the power of drugs to promote absorption of solid growths, will, he believes, find some difficulty in persuading himself or others that he can do any good in this direction; nor, if he remember the character and extent of the absorbents of the unimpregnated uterus, will he find much better grounds for confidence. In short, as Dr. Meadows has stated here and elsewhere, the attempt to reduce a fibrous tumour of the uterus by any system of medication is utterly hopeless, and the sooner this is admitted the better. But this by no means precludes the possibility of effecting much good by judicious medical treatment; only our object should be clearly kept in view, and we shall find, he believes, that in the main all our treatment will aim at accomplishing one of two things—either the relief of pain or the arrest of hæmorrhage. As a rule, these are in inverse proportion to one another; and in Dr. Meadows' experience he has found that, the more subperitoneal the tumour is, the greater is the pain and the less the hæmorrhage; while, on the other hand, the more submucous it is, the greater is the hæmorrhage and the less the pain. For the relief of pain he much prefers, because he has found them most useful, the employment of medicated vaginal pessaries, carrying a third or half a grain of morphia, with a sixteenth or a twelfth of a grain of atropine. In some cases, where there is ordinarily but slight discharge, the application of a few leeches to the cervix uteri will afford great relief. For the arrest of hæmorrhage, he has found few drugs so efficacious as the combination of the peracetate of iron and ergot. He has not found much benefit from the use of digitalis, nor has any simple astringent acted so well in his hands as the above. Next to that he would place the nitrate of silver, in quarter-grain doses, and next to that the acetate of lead, with dilute acetic acid. Of course there are many other remedies which are useful, and one may be found to answer better with one practitioner than with another; but, if the principles of treatment be sound, Dr. Meadows believes that the details will not be likely to err much.

Dr. HEYWOOD SMITH says that he has as yet had no case a sufficient number of years under observation to be able to record any amelioration, nor does he know as yet any medicine having direct effect on fibrous tumours; indirectly, in some rare cases, mercury seems to slightly lessen their size. This, probably, is only a temporary alteration of the more active parts of such tumours; and, as mercury is a remedy that has to be intermitted, its permanent value is, he believes, questionable.

Dr. ARTHUR W. EDIS believes that, with the exception of some few well authenticated cases of the disappearance of fibroids during the process of involution following parturition, it is doubtful whether they ever become absorbed in consequence of drugs administered with that

intention. Bromide of potassium is supposed to accomplish this object, and has been given in large doses continuously for months; but, beyond controlling the menorrhagia and allaying nervous symptoms, he thinks we must acknowledge that it has little power in promoting the absorption of these tumours; and the same may be said of the iodide. Much, however, may be accomplished in relieving the symptoms to which they give rise. The most prominent and frequently the most urgent symptom is hæmorrhage, either in the form of profuse and prolonged catamenia, or continuous sanguineous discharge. Leeches to the os uteri, or scarifications of the cervix, together with ergot and gallic acid in the acid infusion of roses, almost always succeed in checking or arresting the discharge. Digitalis in some instances acts very beneficially; as also cannabis Indica. Mercurials occasionally prove very useful. In addition to restraining the hæmorrhage, ergot seems to retard the growth of the fibroids, more especially in the submucous intestinal cavities. The bearing down and feeling of weight in the lower abdomen, frequently complained of, may often be greatly relieved by a properly adjusted abdominal binder, which also takes off the pressure from the bladder, and affords great comfort to the patient. Where impaction in the pelvis and obstruction to the passage of the feces occur, much may be gained by pushing the tumour up beyond the pelvic brim. The leucorrhœa which is often present, Dr. Edis believes, should not be checked unadvisedly, as it relieves the uterine congestion and lessens the pain. The constipation frequently met with is best treated by attending to the regular evacuation of the bowels; aloes and nux vomica, confection of senna, and other simple remedies, being generally sufficient.

[To be continued.]

REVIEWS AND NOTICES.

REPORTS ON THE PROGRESS OF MEDICINE IN DIFFERENT PARTS OF THE WORLD. Edited by HORACE DOBELL, M.D. Vol. ii. London: Longmans. 1871.

It has been said that the medical journals are for "tired medical men." Books such as this by Dr. DOBELL have the like object. He has brought out a handsome volume so devised that the weary practitioner may peep through the "loopholes of retreat" at the stirring and competing medical world. In about six hundred pages are stored the contributions of most of the busiest workers during the year in the world's medical hive. M. Villemin, amidst carnage and famine, writes an elaborate report on the state of surgical pathology in France, and on the most recent advances in physiology; his summary of materia medica, therapeutics, and pharmacy, is perhaps one of the most interesting contributions to the volume. We may specially allude to the inquiries being made into the physiological action of iodide and bromide of potassium, and of Calabar bean, and to the question of chloride of sodium being always or only sometimes present in sea-air. Mr. William Kemp sends from New Zealand a short but effective communication; the remarks on intestinal worms and the prevalence of insanity in the colony being clear and to the point.

Mr. Macnamara of the Calcutta Ophthalmic Hospital furnishes a somewhat brief report from India, but the remarks on the epidemic fever of Bengal and on Asiatic cholera will repay perusal. Portugal is represented by Dr. Brandt, and, in spite of the writer's modest footnote of apology, we may say that a very interesting paper has been compiled. Dr. Brandt's account of experiments with animal vaccine is worth attention. Dr. Sammut of Naples gives a succinct account of the state of medicine in Italy; he comments on the want of concentration in scientific pursuits. Dr. Althaus furnishes about forty pages, in which he has deftly gathered up all that one wants to know of hygiene, military hygiene, and the latest theories on these and other topics in the Fatherland. There is a capital bit of reading on the question whether consumptive persons should, by their medical adviser, be allowed to marry; also an interesting record of a case of chyluria. Notice is fully taken of Brehmer's important work, "Die chronische Lungenschwindsucht und Tuberculose der Lunge, ihre Ursache und ihre Heilung." The reports from Prince Edward's Island hardly called for publication. Dr. Hjaltalin's contribution from Iceland is more nearly up to the mark. What there is of Dr. Carroll's report for the United States is good, so

far as it goes, but its completeness is sadly marred by the writer being laid aside by illness in the midst of his labours.

Java and Madura (Netherlands-India) afford Dr. Wylie an opportunity of putting together a very readable paper. California sends heavy reading and meteorological tables. Dr. Saxby, who represents the Shetland Isles, is happy in sending a lively and very practical report. Contributions such as his supply the chief elements of attraction of Dr. Dobell's volume, which does not apparently aim at more than being an easy, yet trustworthy synopsis, such as a man actively engaged in practice can take up at odd moments and peruse without effort, and yet with profit. The report from Australia is unfortunately only fragmentary, and therefore it would not be fair to speak of it. Probably in the next volume of Dr. Dobell's compilation we shall have a connected report. China and Turkey are the subject of reports chiefly hygienic. The United Kingdom takes the lion's share of space. Dr. Farquharson of Rugby writes well on diet and regimen. Dr. Fish on etiology, Dr. Balthazar Foster on diagnosis, and Dr. Brakenridge on the management and treatment of disease, will refresh the memories of many who skim the medical journals as they read them weekly, and easily forget what has been hurriedly glanced over. Dr. Dobell has supplied with unflinching energy a want which readers of this class must often feel; and they will not fail to appreciate his labour. Most of us can find use for a good retrospect. We ought not to omit to mention that Mr. Heather Bigg has reported well on mechanical appliances and instruments in various countries. We hope that, when a third volume is brought out, Dr. Dobell will prefix a table of contents. The index is copious and useful, but great practical inconveniences arise when in a book of reference a classified table of contents is conspicuous by its absence. Too much of the space, also, is still occupied by matter not relating to the progress of medicine; and the editor is by far too sparing of the pruning-hook. Some of the suggestions which we tendered last year have been adopted with advantage.

THE WASTING DISEASES OF CHILDREN. By EUSTACE SMITH, M.D., Physician to his Majesty the King of the Belgians; Physician to the North-West London Free Dispensary for Sick Children. Second Edition. London: J. Walton. 1870.

THIS is in every way an admirable book. The modest title which the author has chosen for it scarcely conveys an adequate idea of the many subjects upon which it treats. Wasting is so constant an attendant upon the maladies of childhood, that a treatise upon the wasting diseases of children must necessarily embrace the consideration of many affections of which it is a symptom; and this is excellently well done by Dr. SMITH. The book might fairly be described as a practical handbook of the common diseases of children, so numerous are the affections considered either collaterally or directly. We are acquainted with no safer guide to the treatment of children's diseases, and few works give the insight into the physiological and other peculiarities of children that Dr. Smith's book does. The author has largely reproduced the unequalled teaching of one of the ablest physicians of the day, to whom indeed the work is appropriately dedicated; but he has so well collated this, and has so skilfully interwoven much valuable material derived from other sources, in addition to his own considerable experience, that he deserves the warm thanks of children who suffer and of physicians whose duty it is to heal them.

We are persuaded that much of the knowledge which Dr. Smith's treatise is capable of imparting is new to many; and, as we know it to be both true and valuable, we feel it to be our duty to recommend the perusal of the book to all who are called upon to treat the ailments of children. We should welcome a complete treatise upon the diseases of children from the same pen.

NOTES ON BOOKS.

WE have received a copy of directions which have been drawn up for the guidance of the clinical clerks in the Provincial and City Hospital, Nova Scotia. The method adopted is similar to that recommended by Dr. J. Hughes Bennett, in his work on Clinical Instruction. The directions are well drawn up, and contain many instructive hints in systematic case taking.

THE Subscriptions to the Association for the year 1871 become due in advance on January 1st. All which are not already paid, should be forwarded to the General Secretary, Mr. T. Watkin Williams, 13, New Hall Street, Birmingham; or to the Secretaries of Branches.

BRITISH MEDICAL JOURNAL.

SATURDAY, APRIL 8TH, 1871.

A LAME APOLOGY.

IT was the very unpleasing duty of the JOURNAL a fortnight since, in defending the British Medical Association and its Medical Reform Committee from a long series of insults and attacks on the part of the *Lancet*, to have to declare and to prove that every one of the statements was directly contrary to the truth in essence, in form, and in letter, and to denounce them separately and in plain language as untrue, and as deliberately put forward to pervert and misrepresent the action of the Association and to injure and annoy the well-known public men who have been making great sacrifices of time and labour, at the bidding of the Association, in order to assist in securing certain defined objects of medical reform entrusted to their charge by repeated public and solemn acts of the Association in general meeting. Our contemporary pleads guilty on all the charges of fact, but with the unlooked-for qualification that its statements were of no importance. It was not true that the Committee was an excrescence of the Committee of Council; that it had no representative character; or was a "Rump"; or that it had lost all its importance by the secession of whatever members gave importance to it; or that it had suffered any secession at all; or that Mr. Headlam had intimated a preference for the clauses of the Bill brought forward by Mr. Lush; or that our statements on the subject were incredible, or anything else than strictly accurate; or that the five members of the General Medical Council had done anything more than to decline to act with the General Executive of the Association in urging the principle of direct representation, which is the war-cry of the *Lancet*, borrowed from the Association. But whether any or all of these statements were true, whether the five gentlemen referred to belonged to the Reform Committee or not, or why they took this course, is of no more consequence "than whether they wore light coats or dark ones." Every statement which the *Lancet* has made on this subject, and on which it has founded so much elegant abuse, is false from beginning to end. Compelled this week to start from that confession as a base, it has no other plea to offer than that its statements are "of no importance." It is very well to know the estimate which it puts upon its own fabrications; many persons were disposed beforehand to adopt it: on such excellent authority it will henceforth be difficult to doubt it, on this or any other subject. We presume, however, that our contemporary does not always mean to carry its rage for unimportant fiction and trifling vituperation to the extent of falsifying the acts of a great association, garbling and suppressing the brief official rectifications of fact addressed to it, and coarsely insulting the eminent representatives of a body including a fourth of the profession. At least, the plea of "*vive la bagatelle*" comes in a little lamely as an apology for such a course; it is contrary to the rules of professional conduct and of respectable journalism. By assuming such an attitude, it may hope to avert the destructive anger, but it will hardly save itself from the unmitigated contempt, of the profession.

It opens a new issue by professing for the Association an affection, which we are most willing to accept as real and unforced. In that case we will point out to the conductors of the journal, that some treasonable practices have been at work to falsify that affection. Setting aside the question of medical reform, which it desires to select as a field for agreeable fiction and irresponsible misstatement, we may point out that there is no reason why a journal which is merely just, not to say affectionate, should use the name of the Association so freely for the purposes of abuse, however playful, but carefully erase its name from any paragraph referring to its acts of public usefulness, when the necessity of referring to those acts occurs. For instance, there is no reason which we can discover, founded either in love or justice, why the recent meeting of the Metropolitan Counties Branch, attended by an influential parliamentary and lay auditory, to consider the medical aspects of pauperism, should have been reported as "a meeting at the Charing Cross Hotel"; or why all reference to the acts of the Association has been carefully omitted in the articles on the origin and report of the Royal Sanitary Commission, in the summary of the year, in the articles on the sick-club movement, the Shropshire tariff of fees, and a score of other similar matters. It is impossible to dissimulate affection more closely than by seizing every conceivable opportunity for abusing the beloved object, and suppressing its connexion with any efforts which must be discussed in the opposite spirit. With this hint, we close the discussion.

The sort of apology which the *Lancet* offers is not much more creditable than the offence. There are, however, in its management elements which justify the anticipation that similar proclivities will in future be checked by the good sense and good feeling of gentlemen connected with that journal. The *Lancet* must have printed the official letter of our General Secretary rectifying some of its misstatements, with something of the feeling with which a Parisian tradesman affixes to his doorpost the judgment of the court on his fabricated compounds, of which the public analyst has exposed the character; but at least it has thought well, since our "rectification of facts," to pause in the course of suppressing or mutilating the official corrections which its misstatements compelled.

PHARMACOPŒIAL NOMENCLATURE.

IN an able paper read before the Pharmaceutical Society on Wednesday evening, Dr. Attfield discussed a subject of much medical interest, the alteration in pharmacopœial nomenclature necessitated by the advancement of chemistry. Within the last few years, the views hitherto prevailing of the constitution of matter have undergone radical alteration. There is no small difficulty in adopting for the Pharmacopœia chemical names, explicit, easily understood, and unambiguous, and yet consistent with accepted chemical theories taught in the schools. Dr. Attfield discussed the history of the chemical names employed in the Pharmacopœia, historically, and from the modern stand-point. We need not follow him through this part of his address, in which the facts will have been anticipated by many of our readers, but may refer to the current number of the *Pharmaceutical Journal*, in which it will appear at length, but will only state the conclusions at which he arrives.

The chief alterations in pharmacopœial nomenclature which he proposed amounts to this, that the compounds of the alkali-metals and alkaline-earth-metals, instead of being named as hitherto on two distinct systems, should follow but one:—that instead of salts of potassium and of potash, we should have salts of potassium only; instead of

sodium and soda compounds, sodium compounds only; and so with preparations of ammonium, lithium, calcium, magnesium, and albuminum. This is a step in the direction of simplicity and permanency, and away from that of theory.

Modern scientific chemical names, and the old dualistic names should, he thinks, be included as synonyms of the leading name in all Pharmacopœias.

Constitutional objections to the name *arsenicum acidum* would be obviated by the old name *arsenicum album*. In view of the peculiar composition of *bichromate of potassium*, the first word of its name is most unsuitable, and would be advantageously replaced by *red chromate*, a name which would usefully distinguish the salt from *yellow chromate of potassium*. The names of the bismuth powders are not at present consistent with each other; if the one be termed *subnitrate*, the other should be *subcarbonate*, not "*carbonate*." But these preparations and the similar compounds of copper and lead are normal rather than "sub" salts, containing oxygen in the place of an exactly equivalent quantity of the acidulous radical of the neutral salts, and might well be termed respectively *oxycarbonate of bismuth*, *oxynitrate of bismuth*, *oxyacetate of copper*, *oxyacetate of lead*; at all events, the latter names would do good service as synonyms. Similar remarks apply to the *peroxydrates of iron*. The prefix "sub" is most usefully, and indeed indispensably, applied in the case of calomel, which is the "lower" or under-chloride of mercury: it would be well if the meaning of the syllable could be always thus restricted to its etymological signification, and never again used in its old conventional sense. The names *tartarated antimony*, *tartarated iron*, *tartarated sodium*, he does not like at all. The sister terms *sulphurated antimony* and *sulphurated potash* are most happy, their utter vagueness fairly representing the nondescript character of the preparations. But *tartrate of antimony and potassium*, *tartrate of iron and potassium*, and *tartrate of sodium and potassium*, are at least as definite in composition as the citric trio which are properly honoured with the definite names *citrate of bismuth and ammonium*, *citrate of iron and ammonium*, and *citrate of iron and quinia* (or, rather, with the old forms of those names).

Dr. Attfield states, in conclusion, that the Lavoisierian names now proposed have already been freely adopted by many authors, and used as the leading nomenclature of his own and some other manuals of chemistry. We join him in commending them to the consideration of medical practitioners and pharmacists of Europe, America, and the Colonies.

SANITARY REFORM.

IN introducing on Monday night the Bill to amend the law relating to local government, Mr. Göschén explained that in it were incorporated some of the most important recommendations of the Royal Sanitary Commission, such as the consolidation of areas and the unification and extension of local sanitary government. This important measure proposes to consolidate all rates into one. The Bill proposes to take the parishes as the units of area, rectifying their boundaries so that no parish shall be cut in two by any other area; the executive of the parish is to be reconstructed. He then came to the important question of sanitary authority. In this matter there was a broad distinction between town and country. In the urban districts there were the town councils, the improvement commissioners, and the local boards to administer sanitary laws, but outside the towns only a very small portion of the sanitary laws was administered by the boards of guardians. For sanitary purposes it was proposed to take the Union districts. In towns, sanitary laws would be administered by the local boards of the boroughs and the improvement commissioners, and in other districts by the boards of guardians, who had their staffs, their medical officers, and their clerks already organised. Every sanitary authority would be required to provide its district with proper places for the disinfection of clothes, carriages for the removal of persons suffering from infectious diseases, and hospitals to which such persons might be removed. The guardians of

any union and the sanitary authority might make mutual arrangements for carrying this provision into effect. Having consolidated locally, the Government had had to consider the expediency of having one minister, whose duty it should be to look after local rates and local expenditure, and they thought that such an arrangement would conduce to economy, and would be a great protection to the ratepayer. It was proposed, therefore, that all matters relating to local government and rating should be under one central department, and the department to which such of the duties of the Home Office and of the Privy Council would naturally be transferred was the Poor-law Board. As, however, there might be some prejudice against associating the administration of the poor with the superintendence of local affairs, it might be desirable to change the name of that department. Though these reforms were very considerable, they might be carried out with comparatively few clauses, and he had no fear, if the scheme commended itself to the House, of being able to carry it through this session.

It will be the part of our State Medicine Committee to bestir itself in the consideration of the clauses of Mr. Göschén's Bill. They afford an early but a very partial solution of the questions raised.

THE Commissioners on the Contagious Diseases Acts sat every day last week.

MR. CHARLEY has given notice that, on the 5th of May, he will call attention in the House of Commons to the excessive mortality amongst infants put out to nurse for hire, and move for a select committee to inquire as to the best means of preventing this destruction of infant life.

DR. GEORGE BUCHANAN forwards to us a Clinical Surgical Report for the year 1870 of the wards under his charge in the Glasgow Infirmary. The practice of making such reports is a good one; but it has been pointed out to us that their too profuse circulation in the form of a *brochure* is open to professional objections. The results of operation and treatment seem to have been very successful; but it is difficult to draw sound inferences from a number of operations and surgical cases so mixed in character. Dr. Buchanan's favourite dressing for stumps is "a few strips of lint dipped in carbolic oil—with a free opening for discharge to drain away—changed once or twice in twenty-four hours, according to the amount and nature of the discharge."

SURGEON-MAJOR ATCHISON has reprinted, in the form of a pamphlet, his letters to the *Times* on Small-pox Encampments, to which we have already referred as worth the consideration of large towns; and has added to them "a word on the Contagious Diseases Acts". The promoters of the opposition to these Acts, however, will, we believe, be likely to ignore the excellent physical and sanitary reasoning of Mr. Atchison, and press their abolition on "antecedent moral grounds"—a formula which will, we expect, prove fatal to them.

THE Worcestershire Medical Society, which possesses a valuable medical library—that of the late Sir Charles Hastings having been presented by Mr. George Hastings as a nucleus—presents a first annual report, which describes a prosperous state of things. There are fifty-five members on the books, who pay each an annual subscription of one guinea. The library has received some interesting additions, although fewer than might have been expected; and the social and scientific meetings have been successful. The question of "club-pay" having been referred for reconsideration, in consequence of some difference on the subject in one or two neighbouring towns, the Committee have again reported that the minimum tariff of five shillings per head per annum appeared to them just and equitable; and, at the quarterly meeting in July, their report was confirmed and adopted by the Society. Mr. Anthony Martin, Evesham, is the President for 1871; Dr. Williams, Worcester, the Vice-President; Dr. Strange, Honorary Secretary; G. E. Hyde, Esq., Honorary Treasurer.

MR. BLACK, 60, Regent Street, has forwarded to us a proof of a very characteristic and well executed lithographic portrait of Dr. Forbes Winslow, which he has just added to his series. It is not published in the ordinary sense, but issued privately, for the author's friends, by the artist.

RETIREMENT OF MR. COCK.

AFTER a long and faithful performance of duties at Guy's Hospital, Mr. Edward Cock retires from his office of Senior Surgeon. It is intended by his old pupils and friends to present him with a testimonial on the occasion of his retirement.

ST. GEORGE'S HOSPITAL.

DR. THOMAS JONES, who has filled for many years the post of Resident Medical Officer to the Hospital with much acceptance, has been appointed Visiting Apothecary on resigning his appointment to enter on general practice.

RELAPSING FEVER.

AT the meeting of the Epidemiological Society on Wednesday next, four papers on the epidemic of relapsing fever will be read by Mr. T. J. Dyke, Medical Officer of Health for Merthyr Tydfil; Dr. Robinson, Medical Officer of Health for Leeds; Dr. Buchanan; and Mr. J. N. Radcliffe.

SMALLPOX IN LIVERPOOL.

OUR Liverpool correspondent writes:—Dr. Trench reports the mortality from small-pox exceedingly high, the epidemic spreading into all parts of the town. He urged not merely sanitary measures, but vaccination. He protested strongly against using the bastard lymph of revaccination, as "not only a mistake but a crime", and "a practice which was bringing disgrace upon the vaccination system of this country". This will be endorsed by all authorities on the subject. The invariable practice of the public vaccinators here has been to use virgin lymph only, and, with very few exceptions, the same may be said of private vaccinators.

THE REPEAL OF THE CONTAGIOUS DISEASES ACTS.

THE opponents of the Contagious Diseases Acts affirm very confidently that, in spite of the overwhelming evidence by which the excellent sanitary effect of the Contagious Diseases Acts has been established before the Royal Commission now sitting, the Acts are doomed; and that the strong hustings-agitation which has been raised against them on antecedent moral grounds will suffice to deter the Government from taking any firm position in their favour in the coming struggle in the House of Commons. The session will, we believe, not be allowed to close without taking the sense of the House of Commons on the question.

MEDICAL ARRANGEMENTS AT THE EASTER MONDAY REVIEW.

WE are informed by Mr. Cordy Burrows, Principal Medical Officer in charge, that three hospitals, with the necessary appliances, will be provided, in case of accidents at the Brighton review. A large tent, which will serve as head-quarters, will be erected in the field of evolution. There will be hospital accommodation at the Grand Stand, and also at the Industrial Schools, furnishing in all fifty beds. Those who dread accidents with the new weapon ought at least to be satisfied with the ample accommodation afforded by the three hospitals, which, together with the ambulance-waggons, would almost meet the requirements of a small actual engagement. We are in hopes that, before the troops are allowed on the ground, all stray muzzle-stoppers which may yet remain in the hands of the men will be seized. This will remove at least one source of anxiety. We regret to say that the War Office has refused the services of the Ambulance Corps which the National Aid Society intended to send down to Brighton. The authorities at the War Office, in thus declining volunteer assistance, do so, we presume, on the ground that the necessary number of ambulance waggons will be supplied by the military authorities.

SIR JAMES CLARK AND THE COLLEGE OF CHEMISTRY.

DR. HOFMANN pays a just and eloquent tribute to the public services and private character of Sir James Clark, in an account which he has furnished to the current number of the *Quarterly Journal of Science* of the circumstances and efforts which led to the foundation of the College of Chemistry. That most useful institution owed its existence and continuance to the unwearied and enlightened exertions of Dr. Gairdner and Sir James Clark, under the favouring help of the late Prince Consort and Lord Ashburton. Dr. Hofmann's article is a very interesting page in the history of science and of medical worthies in this country.

ACCIDENTS TO VOLUNTEERS.

IN connexion with the subject, referred to in another paragraph, of the medical arrangements at the Brighton review, we have much pleasure in calling attention to the existence of a society which was formed nine years ago, and is now in active operation, for enabling volunteers to secure pecuniary grants when disabled by accidents occurring in the performance of military duty. The annual subscription is one shilling only (with an additional penny if a separate certificate be required in place of being returned on a list with other members of a corps); and the subscriber is entitled, subject to compliance with some simple rules, to the benefits of the society from the receipt of his payment at the office in London to the end of the year. Payments are made according to a scale of degrees; 200 being allotted in case of death from accident; 100 for loss of a limb; from 25 to 100 for other severe and permanent injuries; and one degree for each week of temporary total disability, up to forty weeks. The maximum value of a degree is £1; and, hitherto, the funds of the society (which are almost entirely derived from the annual subscriptions) have been sufficient not only to grant the full allowance to all injured volunteers whose claims have been sustained, but to leave a large amount of money which has been invested, and which may be used in keeping up certain of the larger grants to their full value. During the nine years of the society's existence, more than £2,400 has been distributed to between 500 and 600 claimants. The value of such a society to volunteers, especially to those who belong to the working classes, and whose means of sustenance may be seriously impaired for a longer or shorter time by an accidental injury, must be obvious. Many of our readers belong, in their professional capacity or otherwise, to the volunteer force; and we bring the subject earnestly under their notice, in the hope that they will advise the members of their corps to avail themselves of the simple means of providing against misfortune, which the society affords. All necessary information will be given on application to the Secretary, Dr. A. Henry, 16, Great Coram Street, London.

THE UNITED SERVICE MEDICAL SCHOOL AT NETLEY.

THE summer session of the Army Medical School at Netley was formally opened on Monday, the 3rd instant. The event was attended with more than usual interest, in consequence of the change recently effected in the constitution of the school, it being now for the first time made a common portal through which the medical officers of the naval as well as of the military service of the country are to pass to their respective spheres of duty. The introductory address was delivered by Professor Maclean. The two Directors-General of the Army and Navy Medical Departments were present, together with a large assembly of medical officers of the two services and of non-professional visitors. The nominal roll of gentlemen arrived to attend the courses of instruction included seventeen names for the Naval Medical Department and thirty-six for the Army Medical Department. After welcoming the new comers to the school, Professor Maclean recapitulated the arguments which had been urged for and against the establishment of a separate naval medical school, and showed conclusively that the weight of the arguments in favour of converting the Army Medical School into an "United Medical Service School" far preponderated, not only on the score of economy, but also in respect to efficiency and the general welfare of all concerned. Now for the first time was accomplished what the celebrated John Bell had urged upon

the Government in his often-quoted memoir, dated from Yarmouth in January 1798, and addressed to Earl Spencer, then First Lord of the Admiralty, "the formation of a national school of military and naval medicine", a school in which a course of instruction specially adapted to naval and military surgeons should be given. The learned professor took a survey of the stirring naval exploits and military campaigns in various parts of the globe with which the medical officers of this and other countries have been associated during the last sixteen years down to the Franco-German war recently concluded, calling attention, among other matters, to the remarkable frequency with which bodies of sailors have taken an important part in the shore-operations during this period—the British naval brigade in the Crimea, the Russian sailors at the Alma and in the Sebastopol batteries, Peel's naval brigade in India during the Sepoy mutiny, and others, finishing with the sailors of the French fleet in the forts round Paris; and he indicated, by numerous illustrations, the necessity for special preparation in order rightly to perform the very varied sanitary, transport, field-hospital, and other professional duties, which the peculiar situations and circumstances of the military undertakings and events he had referred to had caused the medical officers of both services to have to discharge. Professor Maclean remarked on the impossibility of saying how short or how long a time may elapse before this country will again become involved in war, and concluded with an eloquent appeal to the gentlemen attending the school to make their preparation as complete as possible during the ensuing four months of the session, so that, whether employed hereafter in the peace duties of home and foreign service, or in the more exciting duties of time of war, they may find themselves able to fulfil the tasks imposed upon them by the State, with the utmost advantage to the particular branch of the national forces to which they will respectively belong, and with complete satisfaction to themselves as medical officers. On the conclusion of Professor Maclean's address, a few remarks were made by Colonel Gordon, the Commandant of the Royal Victoria Hospital; by Sir Galbraith Logan; and by Dr. Armstrong, the Director-General of the Naval Medical Department; after which the meeting broke up.

GREENWICH HOSPITAL.

THE Queen in Council has approved of a memorial, which has been before the Lords Commissioners of the Admiralty, which recommends Her Majesty, by Order in Council, to establish one pension of one hundred pounds a year for inspectors-general of Her Majesty's hospitals and fleets, and two additional pensions of fifty pounds a year each for staff-surgeons and surgeons of Her Majesty's navy; the said pensions to be awarded under the same regulations as govern the grant of other Greenwich Hospital pensions to officers.

SCIENCE-COLLEGE FOR NEWCASTLE-ON-TYNE.

A LARGE and influential meeting was held last week, when it was determined to accept an offer made by the University of Durham, through the Dean, of £1000 a year for six years, with other collateral advantages, for the establishment of a college in Newcastle for the study of the physical sciences, provided the town and district raised an equal sum.

OPERATIONS IN MANCHESTER.

OUR Manchester correspondent writes:—Mr. Whitehead, one of the surgeons to St. Mary's Hospital, has recently performed two operations of considerable interest and importance. The first was a case of pedunculated subserous fibroid tumour of the uterus. The tumour, which occasioned great distress in micturition and defæcation, was easily mapped out by a rectal and vaginal examination. It lay between the rectum and vagina, and could be pushed aside for a short distance, but never above the brim of the pelvis. Mr. Whitehead removed it by making an incision through the posterior wall of the vagina and dragging the tumour through the opening. He then passed a double ligature around the pedicle and cut it off; the stump was touched with the actual cautery to arrest the hæmorrhage, and the incision was closed

by sutures, leaving a dependent opening for the passage of the ligature which surrounded the pedicle. The patient, a delicate woman of about forty, sank on the fourth day, never having thoroughly rallied from the shock of the operation. The diagnosis of the second case, confirmed by the operation, was that the patient was suffering from a large lobulated fibroid tumour of the uterus. Surgical interference was deemed advisable, as the patient was losing her life from constantly repeated and profuse hæmorrhage. The tumour was to be removed through the abdominal walls by an incision reaching from the umbilicus to the pubes. The tumour was as large as an adult head. A ligature was placed round the cervix uteri, which was amputated immediately above the point of deligation. There was very free bleeding from the broad ligament when it was cut through, which gave a great deal of trouble, and it was only with patience and time that Mr. Whitehead succeeded in securing all the bleeding mouths. This he eventually did, cutting the ligatures short off, but leaving the cord which surrounded the pedicle hanging from the external wound. In this case death occurred on the third day, from slow secondary hæmorrhage, which took place from small unsecured vessels of the broad ligament. A great many visitors witnessed both operations, which were performed in a very skilful manner. Both tumours were shown at the meeting of the Manchester Medical Society, held on Wednesday, April 5th.

UNCERTIFIED ACCOUCHEURS.

A CASE of death in childbed was investigated by Dr. Hardwicke for Dr. Lankester in Paddington last week, which gives rise to serious, but, we fear, fruitless, considerations. The deceased woman began to lose blood on Monday, and on Thursday was delivered of a dead child. A Mr. Carrington, a chemist, attended her. According to his evidence, the child was born about two o'clock: "a little before then she appeared very cheerful, and, finding a flooding set in, he gave her an acid and opium mixture, usual in such cases". He left her, and she died in the evening from exhaustion through loss of blood. Dr. Westmacott, who made the *post mortem* examination, found a rupture of the uterus four inches long: the uterus was unusually thin. The jury found a verdict of accidental death, but recommended Mr. Carrington, in cases where there was any difficulty or danger, to call in the assistance of a duly qualified medical man. A more radical recommendation would meet the case better in our opinion. Apparently Mr. Carrington was not alive to the nature of the difficulty or danger; and it is these reasons for preliminary appreciation of the features of the case which make the services of duly qualified and certified persons desirable in all cases of labour.

BABY-FARMING.

A DEPUTATION from the Infant Life Protection Society had an interview with the President of the Poor-law Board on Saturday last, on the subject of the Bill now before the House. Dr. Playfair, M.P., introduced the deputation. Mr. Ernest Hart, Dr. Brewer, M.P., Mr. Curgenven, and the Rev. Mr. Thorpe, entered successively into explanations on the general objects proposed and the clauses of the Bill. Mr. Stansfeld dwelt on the difficulty which might arise from attempting a general registration of the kind proposed; and, after discussion, it was agreed that if the Government would support the appointment of a select committee on the subject of baby-farming and its connection with the excessive mortality of nurslings, the Society would recommend the promoters of the Bill to suspend the further discussion of the measure pending such inquiry. Mr. Stansfeld favoured this solution. We regard it as the best which can be desired. It is possible that such an inquiry may lead to alterations in the bastardy laws, and so go to the root of the evil, of which unregulated baby-farming is one of the branches.

PANGENESIS.

MR. GALTON, F.R.S., read a paper last week at the Royal Society, describing experiments on pangenesis by breeding from rabbits of a pure variety, into whose circulation blood taken from other varieties had previously been largely transfused. By an ingenious device the

blood from one rabbit was made to flow freely from carotid to carotid into the circulation of the other of a different variety, for nearly half an hour. The results of breeding showed no variations of character in the offspring. This he held to contradict the theory of pangenesis, which asserts that the elements of simple reproduction, of reversion, growth, repair of injuries, and other allied functions, reside in the blood, as gemmules, which live and multiply there, and that the solid framework of the body is little more than a case which encloses them, built up by the development of some of their number, and exercising no further influence on them, than suffices to account for the minute effects of use and disuse of parts and of acquired mental habits being transmitted hereditarily.

SMALL-POX IN INDIA.

DR. DE RENZY, Sanitary Commissioner of the Punjab, states that in that province, with a population of 5,000,000, the deaths from small-pox are never less than 20,000 a year. In 1869, they numbered 53,195. Contrast these terrible totals with the small-pox mortality of England, in which, with its population of 21,000,000, the average of small-pox deaths does not now exceed 5,000 a year, though previously to the introduction of vaccination it was quite as high as it is now in the Punjab. But it is not merely in the saving of life that the benefits of vaccination consist. The amount of physical disfigurement caused by small-pox in the Punjab is enormous. Any person walking through the streets of a Punjab city is struck by the immense proportion of persons blind of one or both eyes—a calamity caused, in ninety-nine cases out of a hundred, by small-pox. Europeans, who, as a rule, are tolerably well protected by vaccination, suffer very little, though they live in the midst of a never-ending epidemic; and natives have everywhere remarked the immunity of Europeans from the injuries to the eyes and other disfigurements to which they are themselves so subject.

THE COLLEGE OF PHYSICIANS, LONDON.

AT the meeting this week of the Royal College of Physicians, Sir James Alderson having delivered the annual address, ably summarising the business of the year, the College proceeded to ballot for the President. Dr. Burrows was elected President, and took the chair with due expressions of thanks for the honour conferred on him and of his sense of duty to the College. Dr. West, as Senior Censor, moved, and Dr. Farre seconded, a vote expressing the obligations of the College to Sir James Alderson for his long services to the College, and for the care and ability which he had devoted to its affairs during the four years in which he had presided over it. He referred to the growing feeling among the Fellows that the honours of the presidential chair might fitly be bestowed in more rapid succession than in past years on those eminent Fellows whose standing and position fitted them for filling the office; and observed that, while every one felt that in the hands of Sir James Alderson the business of the College had been conducted during his four years of office in a manner which deserved their warmest thanks, and had conduced to its advantage, they felt equally sure that no man could be more eminently fitted than his successor to assume the like responsibilities. The motion having been carried with unanimity, the College proceeded to other business. An offer of Dr. Dobell to place his Reports on the Progress of Medicine under the charge of the College was declined; and, at the suggestion of Dr. Lockhart Robertson, it was resolved to ascertain what steps could be taken to place the library on a footing of enlarged usefulness.

REMARKABLE RECOVERY FROM BULLET-WOUNDS.

DR. F. W. LORINSER, of Vienna, has recorded in the *Wiener Medizin. Wochenschrift* a case of an unusual character. A man aged 40, of feeble build, being annoyed by a domestic quarrel, in January 1870, attempted to commit suicide by discharging in succession four balls from a revolver into the left side of his chest. The first ball entered between the second and third ribs; the second, between the third and fourth; the third, between the fourth and fifth; and the fourth,

between the fifth and sixth ribs. When Dr. Lorinser saw him soon afterwards, he was lying on a couch, pale from loss of blood, but sensible. He at first refused surgical interference; after a time, however, he allowed an examination to be made. The wounds bled moderately; the respiratory movements on the left side were scarcely perceptible; breathing was difficult and attended with *râles*; the heart-beat was very weak; the radial pulse was small and weak, and scarcely accelerated. He lay on his back, somewhat towards the left side. Cloths dipped in cold water were applied over the seat of injury, and renewed every ten minutes during the night. The next day, the presence of air in the pleural cavity was evident. On the third day, he was able to be undressed and removed to bed. On making an examination of the back, a bullet was found lying under the skin beneath the angle of the left scapula; as it caused no inconvenience, and it did not seem advisable to make a further opening, it was not removed. No trace of the other balls could be detected. The tympanitic sound on percussion was still present, both before and behind; and the normal breath-sound was very indistinctly heard. The patient complained of pain on inspiration and coughing, beneath the left axilla; a friction-sound was heard in the neighbourhood of the wounds; and there was loss of motor power in the left upper limb. The sputa contained dark-red blood, gradually becoming brown. Improvement went on slowly for some days, the patient regaining strength and appetite; but, in the night between the seventh and eighth days, he was suddenly attacked with severe dyspnoea, paroxysms of which continued during the day, and were relieved by cherry-laurel water and small doses of acetate of morphia. His appetite was now completely lost, and returned only after some days. Again there was improvement; on the fourteenth day, the vesicular murmur was heard over the whole of the left lung, being rather weak only in the vicinity of the wounds. On the third week he attempted to leave his bed for a short time; but was immediately again seized with an asthmatic paroxysm; he again lost his appetite, and sleeplessness now set in. This state continued until the eighth week, when the patient had recovered sufficiently to be able to leave his bed, and his appetite returned; with this his strength increased so far that he was soon able to go into the open air. The insomnia, which had been very obstinate, now disappeared; and, three months after the injury, he was able to go to the Tyrol, where he spent the summer. When Dr. Lorinser again saw him in the autumn, he was so much improved that his friends said that he had never appeared in better health. All the symptoms produced by the injury, including the paralysis of the arm, had disappeared. One ball still lay below the scapula, but caused no inconvenience. What had become of the three other balls could only be conjectured; it was plain, however, that they had not escaped. One had probably injured for a time a motor portion of the brachial plexus; the second and third had probably penetrated to the neighbourhood of the pneumogastric sympathetic nerves, producing the dyspnoea, loss of appetite, and insomnia: while it was the fourth or lowest that was felt beneath the integument of the back. The man discharged the revolver against his naked chest; and Dr. Lorinser suggests, in gun-shot wounds of the lungs, it is the portion of clothing driven in with the bullet that produces the mischief, rather than the missile itself.

SCOTLAND.

THE FEMALE MEDICAL STUDENTS IN EDINBURGH.

THE prize list of the Edinburgh extra-academical school for the session recently ended has a novel character, in the presence of the names of several ladies among the successful competitors. In Dr. Handyside's class of Anatomy, the names of Matilda C. Chaplin, Mary Edith Pechy, and Helen Evans appear as recipients of four out of fourteen certificates of merit; and in Dr. Watson's junior class of Surgery, Isabel Thorne and Matilda C. Chaplin are noted as having gained prizes.

LADY STUDENTS IN THE EDINBURGH ROYAL INFIRMARY.

PROFESSOR CALDERWOOD, as representing the Society for Promoting the Medical Education of Women, has sent in a plan for the consideration of the Board of Management at their next meeting, by which, he believes, clinical instruction may be given to lady students without danger to the objects for which the Infirmary was originally designed.

THE EDINBURGH UNIVERSITY ON ST. ANDREW'S AND ITS MEDICAL DEGREES.

At the meeting of the Edinburgh University Court held on Monday, an important report and petition of the Senatus Academicus of the University was submitted, on an application by St. Andrew's University to Her Majesty in Council for the extension of the right of that University to grant degrees without University study. It will be understood that St. Andrew's University, by the Scottish Universities' Act, was permitted to grant ten medical degrees annually to practitioners above forty years of age who had not received an University education. The University of St. Andrew's now wished to have its powers extended, as their degree had become much in demand. They considered that they should be authorised to grant the degree of Doctor of Medicine to practitioners of five years' standing without University education, and without limit as to number. The discussion on the step thus taken by the authorities of St. Andrew's University was unanimous in its tone. The Lord Rector, one of the Scottish Commissioners upon whose report the Act was mainly drawn up, observed that the Commissioners held a very strong opinion that the system of granting degrees without University education should be abolished. A resolution was unanimously adopted, concurring with the Senatus in their intention to oppose the alteration in the Scotch University Commission craved by the University of St. Andrew's, and promising to support the Senatus by any assistance in their power. The Universities of Aberdeen and Glasgow are also taking steps strongly to oppose the alteration in the Act.

IRELAND.

TIPPERARY MEDICAL PROTECTIVE ASSOCIATION.

THE annual meeting of this association was held on March 16th. In consequence of the death of the late Dr. Fitzgibbon, Dr. John Stokes of Cahir was elected vice-president in his place; and the following resolution was unanimously passed. "At this our first meeting, since the much lamented death of our late vice-president, Dr. Fitzgibbon, we cannot separate without placing on record our deep regret at an event which has deprived us of a sincere friend, who by his aid and counsel gave us the greatest assistance; and by the zeal, ability, and tenderness he displayed in the discharge of his various duties, not alone gained the confidence of the public, but reflected the greatest credit on the noble profession he was so worthy an ornament of; and we respectfully tender to his afflicted widow and sorrowing children our deep and sincere condolence at the irreparable loss they have sustained." Dr. B. W. Bradshaw resigned, in consequence of ill health, the office of secretary and treasurer, which he had held for eighteen years. A motion was unanimously passed, expressing regret at the cause of his resignation, and pledging the meeting to adopt some means of marking their sense of the value of his services.

VACCINATION AND SMALL-POX.

THE Bath Board of Guardians are, we observe, displaying a commendable activity in working up the arrears of vaccination. We have only to express the hope that, in this and other instances, the activity will not be merely temporary and spasmodic, but that permanent arrangements will be made for carrying out the law continuously, and affording a lasting protection to the population from future epidemics of small-pox.

DRS. GRAHAM and Jackson, public vaccinators, have vaccinated, during the last eight days, 1,200 men belonging to Her Majesty's ships in Plymouth Harbour.

REVACCINATION.

DR. JAMES THOMPSON of Leamington writes as follows. It may not be amiss at the present time to lay before your readers some circumstances relative to vaccination which have occurred in my own person. In 1863, while in Jamaica during an epidemic of small-pox, I was revaccinated without success. A month since, I revaccinated myself in two places with fresh lymph taken direct from the arm of a strong healthy child, but without any effect. A week since I repeated the operation under similar circumstances, and have now a fairly formed pustule. Both times I took particular pains to insert the lymph. Can it be that my period of protection ended during the time which intervened? On the third day I suffered considerable *malaise*. I have revaccinated a considerable number of adults, and in many cases have seen a fair pustule produced.

SMALL-POX AND THE IRISH CLERGY.

IN consequence of the spread of small-pox in many parts of Ireland, a meeting of the inhabitants of Durrus (county Cork) and its vicinity was held on St. Patrick's Day; the Rev. P. O'Flynn, parish priest, in the Chair. A motion was proposed by Mr. M. H. Morris, seconded by Dr. T. Sandiford, and carried, to the effect that the clergymen of all denominations resident in the district be requested to impress upon their flocks, both publicly and privately, the great value of vaccination in general, and of revaccination especially; to recommend to the heads of families to have their grown-up children revaccinated; and further, to have all the children attending the different schools in the parish revaccinated. The Rev. Mr. O'Flynn promised to do all in his power to promote revaccination.

THE QUINTESSANCE OF STUPIDITY.

WE quote the following very pertinent remarks from an Irish newspaper. "In Ireland, we are happy to say, the epidemic of small-pox is not spreading. Although we are not entirely free from it in Dublin, there have been but few fatal cases. In Belfast it has altogether disappeared—at least from the hospital which was appropriated for the reception of persons affected by the disease. We regret to learn that in some Irish unions, where the guardians ought to know better, they have refused vaccine points and lancets to their medical officers, on the mistaken ground of economy. This conduct cannot be too strongly condemned at the present time. Surely a few shillings for ivory points and lancets should not be refused, more especially as they are authorised by the Commissioners." It is almost unnecessary to comment further upon this; but we may observe that the ratepayers of unions presided over by such enlightened boards of guardians will find that it is much more economical to provide proper means for the storage of lymph and for the purchase of vaccination-lancets, than to build small-pox hospitals. The Poor-law medical officers of Ireland have performed their onerous and dangerous duties well and faithfully, as the Commissioners' and Registrar-General's reports have already proved, and the result of the present outbreak of small-pox in the United Kingdom has established the fact. Such penny wisdom we commend to the notice of the Irish Poor-law Commissioners; and our belief in the energy of those gentlemen will be very much shaken, if they do not take immediate action wherever or whenever their attention may be directed towards such a suicidal display of mistaken economy.

USE OF LYMPH FROM REVACCINATION.

MR. A. B. STEELE, of the National Vaccine Establishment, Liverpool, writes: Those who attempt to justify the use of secondary lymph, point out that, in a certain proportion of cases, revaccination produces a typical vesicle, and that the lymph from such vesicles reproduces the same local effects. All this is undoubtedly true, but, nevertheless, does not prove its protective influence. Important as the local signs of vaccination are, they do not in every case prove absolutely that protection is secured. This is shown by the very common occurrence of cases similar to the "two remarkable cases of revaccination," reported by Dr. Hardy in the JOURNAL of the 1st of April: such cases are familiar to all experienced observers, and will be met with in the public records of revaccination on a large scale. The insertion of lymph into the absorbing surface of the cutis, is a far more delicate test of susceptibility than exposure to contagion in the ordinary way; and it by no means follows that, because a typical vesicle is produced, the person was pre-

viously unprotected. This has been clearly shown by Dr. Seaton in his article on Re-vaccination. Neither is it safe to infer that lymph which is capable of producing occasionally a typical vesicle is necessarily sufficiently active to ensure at the same time the constitutional effects which are essential to thorough protection. All that is really known to rest upon a secure basis of ascertained facts is, first that primary lymph, carefully selected in accordance with Jenner's directions, has immense protective power. Any important deviation from his rules is invariably followed, sooner or later, by deterioration of the lymph; and, although this is first manifested by the modification of the vesicles, it may not be discovered until much mischief has been done by the propagation of a virus of inferior quality. The actual results to be obtained from the use of the lymph of revaccination are yet to be shown, as we have no reliable data of sufficient extent to justify an inference, and therefore it would seem at least imprudent, in so important a question, to substitute for the Jennerian lymph, which has stood the test of nearly a century, that which has scarcely been used or thought of more than a few months.

ASSOCIATION INTELLIGENCE.

BATH AND BRISTOL BRANCH.

THE fifth ordinary meeting of this Branch will be held at the Royal Hotel, College Green, Bristol, on Thursday, April 13th, at 7 P.M.; CHARLES BLEECK, Esq., President, in the Chair.

Papers are promised by Dr. E. L. Fox, Dr. W. Budd, Mr. Leonard, Mr. Tibbits, and Mr. Dowson.

R. S. FOWLER, } *Honorary Secretaries.*
E. C. BOARD, }

Bristol, March 29th, 1871.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT MEDICAL MEETINGS.

A MEETING of the members of the above district will be held at the Steyne Hotel, Worthing, on Tuesday, April 18th, at 4.15 P.M.; H. COLLET, M.D., in the Chair.

Dinner will be provided at 5.45 P.M. precisely. Charge, 5s., exclusive of wine.

All members of the South-Eastern Branch are entitled to attend, and to introduce friends.

Gentlemen who wish to make communications at the meeting, are requested to inform me *at once*, in order that a notice thereof may be included in the circular convening the meeting.

WM. J. HARRIS, *Honorary Secretary.*

13, Marine Parade, Worthing, March 20th, 1871.

METROPOLITAN COUNTIES BRANCH.

AN ordinary meeting of this Branch will be held at the Charing Cross Hotel, on Friday, April 21st, at 8 P.M.; when Dr. E. C. SEATON will open a discussion on Some of the Lessons to be derived from the present Epidemic of Small-pox.

A. P. STEWART, M.D. } *Honorary Secretaries.*
ALEXANDER HENRY, M.D. }

London, March 29th, 1871.

CUMBERLAND AND WESTMORLAND BRANCH.

THE spring meeting of the above Branch will be held at Kendal, on Wednesday, May 3rd, 1871; THOMAS F. P'ANSON, M.D., President, in the Chair.

Gentlemen intending to be present, or to read papers, are requested to communicate with the Secretary without delay.

HENRY BARNES, M.D., *Honorary Secretary.*

Carlisle, March 29th, 1871.

CAMBRIDGE AND HUNTINGDONSHIRE BRANCH.

A MEETING of the above Branch will be held at the County Hospital, Huntingdon, on Wednesday, May 3rd, at 2 P.M.; MICHAEL FOSTER, Esq., in the Chair.

Dinner at the George Hotel at 5 P.M. Tickets 13s. each.

Gentlemen intending to read papers, or to be present at the dinner, are requested to communicate with the Honorary Secretary.

J. B. BRADBURY, M.D., *Honorary Secretary.*

Corpus Buildings, Cambridge, April 1st, 1871.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 28TH, 1871.

JOHN BIRKETT, Esq., Treasurer, in the Chair.

ON THE CLASSIFICATION AND TABULATION OF INJURIES AND SURGICAL OPERATIONS IN TIME OF WAR. BY DEPUTY INSPECTOR-GENERAL T. LONGMORE, C.B.

AFTER advertizing to the practical value which attaches to statistical information derived from surgical experience in time of war, the author proceeded to consider the subject of his paper under five separate heads. Under the first head, he remarked upon what had been done in this country in respect to the nomenclature and allocation of gunshot injuries in general nosological classification, more particularly commenting on the changes of names and arrangement which have been introduced by the Committee appointed by the Royal College of Physicians of London to draw up the Nomenclature of Diseases which appeared in the year 1868. In the second division of the paper, the author gave an account of the special classification and tabulation of the statistics of particular gunshot injuries and their treatment in time of war adopted in the British military service; and afterwards of the official systems employed in the United States and France. He also remarked upon the absence of any corresponding official system of classification in the army medical returns of Germany. In the third section of the paper, the question was considered how far the tabular statistics contained in the official records of campaigns published in this country, in the United States, and France, can be justly compared with each other; and the author arrived at the conclusion that no such fair comparisons can be instituted under present circumstances. The fourth division of the paper was devoted to a study of the relative merits of the British, French, and United States systems of classification and tabulation; more especially as regards accuracy and completeness of information, and economy of labour and cost in compilation. Finally, in the fifth part of the paper, the author urged the necessity for an international consideration of the subject, with a view to the statistical and surgical histories of campaigns being constructed on a general system common to the medical departments of all regular armies.

Dr. ALTHAUS said that Mr. Longmore had made an error in stating that no record of the wounded was kept in the German army. Both in the dressing-places to which wounded men were first taken, and in the movable hospitals, the nature of each case and its treatment were noted; and the same was done in the field-hospitals. In this way, very complete statistics of the Danish war had been obtained; and it was highly probable that a very complete account of the injuries received in the recent war would appear.—Staff-Surgeon FITZGERALD said that in the German army a note of each case was indeed made; but there were no numerical returns made out at the dressing-places or in the movable hospitals. The question of recording individual cases was quite distinct from that of numerical returns. What was wanted was, that each surgeon should furnish a return of this kind. He had been employed in compiling the records of the Crimean war, and had had occasion to notice the defects in the returns of primary amputation—there not being sufficient information as to the injuries for which the operations were performed.—Mr. SPENCER WELLS pointed out a source of fallacy which he had noticed while on duty in war; that the same man may receive more than one wound, and thus be entered more than once on the returns.

MEDICAL SOCIETY OF LONDON.

MONDAY, MARCH 6TH, 1871.

JOHN GAY, Esq., President, in the Chair.

MR. W. F. TEEVAN read a paper on the Pathology and Treatment of Stricture of the Urethra. He defined stricture to be "any diminution of the natural calibre of the urethra, the result of the contraction of organised lymph." In this country there was but a vague and undefined idea as to the commencement of stricture, for most surgeons would consider that, if in a given case a No. 10 catheter could be passed, there could be no stricture: hence this most serious pathological fact was presented, that the urethra might dwindle down to one-third of its normal calibre without the change being either recognised or suspected. It was of the utmost importance to detect and cure a stricture in its incipency and so obviate all recourse to any operative procedure. If stricture were diagnosed and cured in its primary stage, an enormous boon would be conferred on mankind, for the renal organs

would be spared the ill effects of a long-standing stricture. As a rule, it was not the fault or neglect of the patient that prevented the diagnosis of stricture in its early stage, for the surgeon had several years' warning of the advent of the disease; inasmuch as, if there were one complaint more than another which worried a patient, it was the persistent presence of a gleet, and for its cure the sufferer went about from hospital to hospital. It might be laid down as a general rule that, if a patient had suffered from gleet for several months, there was always some important pathological alteration, the most serious of which was contraction. The use of the ball-staff would reveal the slightest diminution of the calibre of the urethra—years before its mechanical results to the stream of urine would be apparent. Stricture might, regarding its seat, be divided into subpubic, penile, and orificial. The most common form of stricture was the subpubic, situated at the triangular ligament; and the division of that variety into bulbous and membranous was artificial and not warranted by any facts. Penile strictures were found at a spot varying from two-and-a-half to three-and-a-half inches from the external meatus. Strictures at the orifice were rare, and were usually caused by some chancrous ulceration. Of a given number of strictures, 80 per cent. would be found to be subpubic; 18 per cent. penile; and 2 per cent. orificial. Strictures in their physical conformation might be divided into two great classes: those which he called tunnel-strictures, as they conveyed to the ball-staff the sensation of travelling through a contracted channel; and, secondly, those which imparted to the *bougie-à-boule* the feeling of passing through a sharp and well-defined ring. Most subpubic strictures were of the tunnel kind, whilst penile strictures were as often tunnel-shape as ring-like, and orificial strictures were nearly always of the last kind. He had measured the length of the urethra in one hundred males of adult age, and found that the average measurement was seven and one-eighth inches. Nearly all subpubic strictures would be ascertained to be situated at a spot five inches and a half from the meatus externus. From practical inquiry, he had found that the subpubic urethra would admit the little finger without laceration, thus exhibiting a calibre three times as large as a No. 10 English catheter. All means which had not for their end the restoration of the urethra to its normal diameter would fail to effect a permanent cure of a stricture; so that if the canal, by dilatation, rupture, or incision, were only enlarged to a diameter less than its normal capacity, there would infallibly be a return of the contraction, unless from time to time the diameter of the tube were kept up to that to which it was extended. In severe cases of stricture, only the smallest filiform bougie could be introduced, and with patience and perseverance it would rarely fail of entry; but if it could not, after prolonged trial, be made to pass into the bladder, then such a case was a fit and proper one for external urethrotomy. Whatever treatment might be adopted for stricture, it would appear that such treatment must always be followed, and nearly always preceded, by gradual dilatation. It thus was evident that there was only one treatment *par excellence*—that by gradual dilatation by the French flexible bougies: all other methods were merely auxiliaries. The bougie could dispense with the services of the dilator or urethrotome, but they were impotent and mischievous without the aid of the bougie. In a certain number of limited cases dilatation could only be effected to a certain point, or, if it were carried beyond this, the stricture speedily contracted again. Such strictures ought to be incised or split. Which was the better method? That which the more completely carried out the indications of surgical pathology in such a case. It was a well-known law that a lacerated wound was attended with greater contraction than an incised one; so that, if a stricture required an operation, that operation ought to be a cutting one, and not a tearing one. Forcible dilatation of the urethra for stricture would seem to be sharing the same fate in this country as in Paris, for it had been discontinued by Sir William Fergusson, Mr. Coulson, Mr. Henry Smith, and other surgeons. The objections to forcible rupture were its not unknown sequences of death, abscess, retention of urine, hæmorrhage, and calculus forming on the clot. He knew of fifteen deaths which had occurred in the practice of different hospital surgeons from the use of dilators. *Post mortem* examination after forcible rupture showed laceration of the mucous membrane. Mr. Teevan concluded by stating that the treatment of stricture might be thus summed up: 1. Gradual dilatation wherever possible; 2. Subcutaneous division wherever desirable; 3. External urethrotomy wherever necessitated.—Mr. MAC CORMAC considered that the majority of strictures could be well treated by gradual dilatation. If the profession carried out Mr. Teevan's instructions regarding the importance of an early diagnosis of stricture, there would be no necessity for any operative procedure.—Mr. HENRY SMITH was strongly opposed to forcible dilatation, as it was followed by relapses and death. He was entirely in favour of gradual dilatation.—Mr. J. D. HILL approved of forcible rupture of stricture, and practised it. He

had, however, had two fatal results in his practice after use of the dilator.—Mr. DAVY had witnessed various methods of treating stricture, and he certainly liked forcible rupture. He considered the *bougie à boule* a most valuable instrument, and it ought to be used as Mr. Teevan had advocated.—Mr. GANT used the dilator in a few exceptional cases, preferring gradual dilatation for the majority of strictures.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 24TH, 1871.

W. W. GULL, M.D., F.R.S., President, in the Chair.

Dr. DUFFIN read notes of two cases of Roseola Variolosa. In the first, six hours after a severe rigor, a thickly set papular rash appeared. It was strictly confined to the surface of the abdomen and the inside of the thighs, thus occupying a triangular space, with its base upwards. The rash blanched on pressure. The patient presented the signs of severe febrile disturbance. After forty-eight hours the eruption became purpuric, and at the end of an additional twenty-four hours uniformly confluent. The regular papules of small pox then appeared on the face. The patient had two imperfect vaccine marks on his arm. The case ran a moderately severe course up to the period of the secondary fever, when the disease aborted. In the second case, a papular rash, in all respects similar to the other, appeared on the arms and thighs of a girl, twenty-four hours after severe rigors. The rash here also became purpuric on the third day, and on the fourth a modified small-pox eruption occupied the face. This patient also had been vaccinated. In reliance on the descriptions of Hebra and Trousseau, Dr. Duffin contended that, where these limited rashes occurred, they were pathognomic of the appearance of small-pox, the diagnosis of which would be much accelerated. In vaccinated subjects they had little prognostic importance, but in the unvaccinated they were extremely formidable. No proper small-pox rash seemed to invade the purpuric area, which gradually faded as the disease evolved.—Dr. FAGGE saw a patient some time ago with the rash, and next day there were papules of small-pox. A man came with purpuric blotches, and passing blood. He died, as Dr. Wilks thought, from small-pox; but he had been ill over forty-eight hours, and there were no papules. Nevertheless, twelve days thereafter several patients in the same ward and the ward-clerk were attacked with true small-pox, there having been no other case in the ward.—Dr. HABERSHON thought the early diagnosis of small-pox often far from easy. The roseola was not always confined to the abdomen. Sometimes it extended to the hands and arms, or other parts of the body.—Dr. RASCH referred to a case in which a lady, who had visited him whilst ill, was attacked with a rash resembling scarlatina on the abdomen. One small-pox pustule followed.—Dr. BROADBENT had altogether seen eight cases like those mentioned by Dr. Fagge. The first exactly resembled a case of scarlatina, but was rather deeper in tint. There were slight throat-symptoms; hæmorrhage followed, and the patient died. There were no papules, though life was prolonged to the fourth day. The rash had been more or less general in all he had seen. With the eruption there had been a period of absolute comfort. Hæmorrhage had come on, and death followed.—Dr. A. P. STEWART had been called to a case of doubtful diagnosis. Twelve days before his visit, a scarlatinal eruption had appeared, with sore-throat. The rash had faded, and slight desquamation was going on, when the patient was seized with a rigor, and on the twelfth day pustules, completely formed in less than thirty hours, appeared on the hands and feet. Was this small-pox? The crusts formed were like those of impetigo.—Dr. SIBSON had seen a similar case.—Dr. SUTTON also affirmed that the early diagnosis of small-pox was not easy. He also had seen cases with roseolous rash over the abdomen.—Dr. DUFFIN had seen another case since the paper was written.—The PRESIDENT had often made a better diagnosis by not looking at the patient with premonitory symptoms of small-pox. Syphilis was most frequently taken for it. They sometimes died with the purpura. He had seen an old gentleman who had had small-pox in his youth, but was again attacked, and died bleeding at every pore on the fourth day as the papules were appearing.

Mr. CHRISTOPHER HEATH read notes of a case of complicated Stricture of the Urethra treated by Mr. Syme's operation for Impermeable Urethra. A discharged soldier, aged 28, upon whom external urethrotomy had been performed in India, had an impassable stricture of the urethra, complicated with perineal fistulæ, and an old false passage of considerable length. The patient had been under careful treatment for six months before he came under Mr. Heath's care; but no instrument could be passed into the bladder, nor was Mr. Heath more successful after several careful trials. He therefore adopted Mr. Syme's suggestion, and introduced a director through one of the fistulæ into the urethra behind the stricture, then passed a steel staff along the urethra

and made it meet the director, and thus enter the bladder. Instead of then cutting upon the staff and dividing the stricture, as suggested by Mr. Syme, Mr. Heath preferred to pass Holt's dilator along the urethra and split the stricture; and this was successfully accomplished. The patient made a good recovery, and was taught to pass his own instrument, which he continues to do to the present time.—Mr. MAUNDER objected to forced catheterism, and he did not think that in this case the track of the urethra had been followed. A false passage had been formed, and a granulating wound produced, which would end in new contraction. It would be impossible to keep this new passage open. He would have selected a variety of perineal section. In all cases a bristle can be passed; the stricture may then be gradually dilated, and cut through.—Mr. TEEVAN remarked that, in all operations for stricture, if such were required, cutting methods were preferable to those which effected their purpose by laceration. He considered it a bad plan to leave a catheter in the bladder after these operations, as it only tended to set up irritations, and promote the formations of a fistula.—Mr. BARWELL had recently examined a man on whom, some years before, he had performed Syme's operation. He had a good urethra. He thought it best to cut through the hard mass. It was difficult to keep the urethra open, and close a fistula.—Mr. COOPER FORSTER thought Mr. Heath's plan reasonable. He found a fistula, and he took advantage of it; if such an one were not found, it was better to make it. Ordinarily, the urethra was dilated behind the stricture; they might cut into this, and then take off the urine regularly, and thus give the stricture rest before operating. He had searched a good many times, without finding anything like an urethra.—Mr. HAWARD was surprised to find no reference to puncture from the rectum; he had seen it afford great comfort to the patient and relief to the stricture.—Mr. CROFT thought that Mr. Heath's case demanded a special line of treatment.—Mr. SMITH used to lay open the stricture and try to force a catheter into the bladder.—Mr. REEVES had seen both Mr. Maunder and Mr. J. Adams manage to pass a bristle through an almost impermeable stricture.—Mr. HEATH said that Mr. Syme's plan was not his; they had become mixed up in the debate. In his case there was a long false passage, so that he could not know where to cut. He did not employ forcible catheterism; he had a guide to the bladder. Mr. Teevan's experience seemed to be somewhat exceptional. Cutting sometimes led to fatal hæmorrhage.

Mr. TEEVAN narrated the particulars of the treatment adopted in a case of Retention of Urine from Impassable Stricture in a man, aged 46, who had suffered from severe organic stricture for ten years, and from retention, with dribbling, for nearly one year. At last, complete retention set in, and he was taken to a hospital, where, after an unsuccessful attempt to pass a catheter, he was relieved by a hot-bath and medicine. A few days later, he came under Mr. Teevan's care for his complaint. He still followed his occupation as cab-driver, as the continual dribbling relieved him. Mr. Teevan tried for half-an hour unsuccessfully to pass the smallest elastic catheters and bougies, and when he renewed his attempts two days afterwards, he met with the same want of success. The following day complete retention set in; and at four o'clock the next morning he was taken to Mr. Teevan, who succeeded, after a quarter of an hour's trial, in passing the No. 1 smallest filiform bougie, which was only about one-fifth of an English No. 1; and having allowed the instrument to remain in for ten minutes, he withdrew it, when a very fine stream of urine began to flow, and continued for an hour, when nearly three quarts of urine had been passed. The patient was afterwards cured of his stricture by gradual dilatation. Mr. Teevan called the case one of impassable stricture, as no catheter could be passed for the relief of the retention. He brought it forward to show what the filiform bougie could achieve in an apparently hopeless case for its successful use. The occurrence of the retention facilitated the passage of a bougie, and therefore, if the patient had been put into a hot-bath, which would probably have been useless, as the weather was very hot, he would have lost a valuable opportunity presented him for commencing that treatment by gradual dilatation, which relieved the retention and ultimately cured the stricture. The bougie had, in this case, saved the patient an operation.—Mr. REEVES had tried these bougies, and had found them often to double up.—Mr. HEATH congratulated Mr. Teevan in being able to pass a bougie in such a case.—Mr. CROFT said that, at St. Thomas's, they often passed cat-gut guides first of all. There was also a plan of pressing against the stricture for a time, after which it might become passable.—Mr. MAUNDER had the highest opinion of the value of these French bougies, and he regretted he was unable to procure any more from Paris. Experience and care entirely obviated the possible occurrence of the incident mentioned by Mr. Reeves. Gentle handling was the great secret.—Mr. TEEVAN said that, in inserting such fine bougies, they should be withdrawn a quarter of an inch for every half inch of progress made. Had he failed, he would have tied the man up, and cut into his bladder.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, MARCH 11TH, 1871.

JAMES STANNUS HUGHES, M.D., President, in the Chair.

Dr. JAMES LITTLE showed a Heart in which there was extreme Narrowing of the Mitral Orifice, the tip of the little finger being with difficulty inserted into the opening. The right ventricle was much dilated, but not hypertrophied; the left ventricle was greatly hypertrophied. To the latter pathological change Dr. Little directed especial attention in its relation to mitral constriction. Bright's disease, permanent patency of the aortic valves, and the existence of a general atheromatous condition of the arterial vessels, were mentioned as the remaining principal causes of hypertrophy of the left ventricle of the heart. In the present instance, a well defined and localised *frémissement cataire* was audible during life over the apex of the heart, a sign of which Dr. Gee has spoken as indicative of mitral obstructive disease.

Dr. R. W. SMITH presented an example of Partial Fracture of the Bones of the Forearm. The patient, a young man, had, by being caught in a machine, received numerous injuries, which had resulted in his death. There were compound fractures of the humerus, and of the bones of one forearm; also fractures of the femur and of the skull; the bones of the other forearm had suffered a complete fracture near their upper extremities, while the ulna was partially broken two inches and a half, and the radius three inches, above the wrist-joint. The lesion did not consist in a mere bending of the bones; for, while there was no interruption of continuity of the osseous fibres on the anterior aspect of the bones, their posterior portions were undoubtedly fractured. The case was one which solved what had long been a more or less uncertain point. Many of the fractures described as partial were in reality complete, the bones retaining a curvature in consequence of an interlocking of the fragments occurring on their concave aspect. Again, a simple bending of various bones was often mistaken for a partial fracture. In the present instance, however, a true "sally-switch" fracture had occurred. Dr. Smith alluded to a paper on the subject which had been published in the first volume of the *Dublin Journal of Medical Science* by the late Dr. Hart, Professor of Anatomy in the College of Surgeons of Ireland.

Dr. STOKES exhibited a specimen of Non-ulcerated Cancer of the Stomach, the disease having been accompanied by the usual symptoms—pain, vomiting, loss of appetite, wasting, with more or less anæmia. There was no obstruction of the pylorus, and the presence of an abdominal tumour could be detected by physical examination only at times. Hypodermic injection of morphia had proved of great use in the treatment of the case, a decided amelioration of the patient's general state having taken place under its employment. A slight ascites was observed at the time of the man's admission to hospital; and on this fact Dr. Stokes laid great stress, pointing out the diagnostic value of the existence of a limited and stationary ascites as indicating the probable presence of carcinoma, where evidences of chronic peritonitis were wanting. On *post mortem* examination, the submucous coat of the stomach was found to be the seat of an extensive cancerous degeneration. The structure partook of the characters of both scirrhus and encephaloma, and afforded a good example of the gelatiniform carcinoma of Cruveilhier. The great omentum was studded with cancerous tubercles, and the surface of the hepatic peritoneum was rough from the presence of numerous hard nodules of very minute size. The mixed nature of the morbid growth went to confirm Cruveilhier's views as to the structure of cancer. That author describes scirrhus and encephaloma as being modifications of the same growth, which consists of a fibrous framework enclosing a cancerous juice. In hard cancer, the fibrous materials are present in excess; in encephaloid disease, they are less in amount than the fluid constituents. Dr. Stokes then proceeded to review our present knowledge of cancer in general. He considered that the origin of the disease was not to be attributed to any inflammatory process, and he believed that we possessed no scientific means of detecting any characteristic, microscopical or chemical, of the affection. With Cruveilhier, he looked upon cancer as specific in its nature. Its formations, again, were found in relation rather with the venous than with the arterial system; and they did not produce irritative changes in surrounding structures. The disease was a process of *conversion*, and, as such, affected fluids as well as solids. An example of this was met with in the change of an empyema into a soft encephaloid mass. Lastly, the rapid growth of cancer was a remarkable feature in its history.

BEQUESTS.—By the will of Mrs. Mary Woodiwis, the Manchester Royal Infirmary receives a legacy of £1000; and St. Mary's Hospital, Manchester, £500.

CORRESPONDENCE.

THE TEACHING OF PSYCHOLOGY IN MEDICAL SCHOOLS AND ASYLUMS.

SIR,—Your correspondent J. B. T. expresses his opinion that my students "would be more benefited by the restriction of my course of instruction to simple descriptions of insanity as it exists as a bodily disease, than by disquisitions on occult metaphysical theories, which have little or no bearing on practice". He also advises all teachers of this department of medicine to bear in mind "the grand words of Griesinger", to the effect that it is a mistake to suppose that "the study of ordinary medicine has no direct bearing upon it, or that the only entrance to psychiatry lies through the dark portals of metaphysics". I am very willing (as probably are my colleagues) to be instructed by J. B. T. His advice would be more cogent, however, if it were better founded. He seems to confound psychology with metaphysics. Further, it is a groundless assumption, and incorrect, in fact, in any reasonable interpretation of the words, that I mingle occult useless metaphysical theories with my teaching; I certainly and of necessity mingle theories. And, thirdly, so far from any intelligent teacher needing the "grand" warning of Griesinger against the error that the study of ordinary medicine has no direct bearing on psychiatry, I suppose all who have any scientific knowledge of the question are of opinion that there can be no solid psychology or metaphysics without that knowledge of the laws of life and of consciousness which the science and practice of medicine give. Let me suppose, however, that we professors of the practice of medicine were to restrict our teaching in psychiatry, in accordance with J. B. T.'s advice, "to simple descriptions of insanity as it exists as a bodily disease", we should have to ignore all recent researches into the anatomy, physiology, and pathology, of the brain; in short, to abandon all theory and science whatever. For, the moment we went beyond the simple description to the reasons or theory of the symptoms and of the best treatment, we should at one plunge our audience into "occult metaphysics" like those which the researches into aphasia have produced, and we should treat of impulses, habit, the will, memory, the arrangement and localisation in the brain of the mental faculties, and the like; otherwise anatomy, etiology, and rational therapeutics, must all be left out of the course.

But, in fact (and J. B. T. would realise it painfully if he had to teach), these "occult metaphysics" cannot be avoided even when we restrict ourselves to the most simple descriptions. In describing properly disorders of the memory, for example, and their relations to insanity and to other brain-disorders, we cannot avoid distinguishing the two elements into which psychologists divide memory, namely, the conservative and the reproductive; because the one may be affected without the other, as in old age, when the memory is vivid as to what happened half a century ago, but a blank as to the events of the previous day. So defective are even intelligent physiologists in such simple psychological knowledge, that one who reviewed a book of mine mentioned this distinctness in the elements of memory, and its application to practice, which he found in the book, as something curious and novel, whereas the only novelty was in the practical application.

Doubtless it would be much easier for both teacher and student to display a brilliant and what J. B. T. seems to think a sagacious ignorance of, and contempt for, such troublesome studies; but is there not too much of that already amongst those who devote themselves to psychiatry specially? Complaints have often been made that our asylums do not contribute their proper quota of scientific knowledge; that the opportunities for research are splendid—the results small. Will it help to obviate these complaints if I and other teachers restrict our teaching as J. B. T. advises? If a superintendent of a county asylum, would exclude psychology from teaching, *à fortiori* he will neglect it in scientific investigation, and justify that neglect in his assistant. I must say that, on these grounds alone, I do not see my way to the adoption of J. B. T.'s recommendation. On the contrary, I think I shall best serve the profession and the public by combining science with practice in this department, as in the others of my course, albeit the science to his imagination may assume the appearance of something occult. And on this point I would observe that Griesinger, in "the grand words" quoted by J. B. T., referred, not to psychology, but to those German systems of metaphysics which are founded on pure thought. What confusion these must have been to his mind, may be gathered in some degree from what he thought lucid psychologically in describing homicidal insanity, a disease so important medico-legally. "Most generally," he observes, "there arises a profound and mournful division of the consciousness, an internal struggle and storm of the most

painful nature with these new and fearful ideas, against which the whole former contents of the *I* resist with all their power, which of course varies in different individuals. Frequently, during the combat, the individual is only able to prevent the total discomfiture and defeat of the *I* by retiring from the struggle and betaking himself to a solitary neighbourhood, where the impulse which thus besets him no longer finds an object," etc. In quoting this, I do not defend it, but give it as an example of the muddling effect of speculation upon science. Here is not one scientific word about the brain, or how it is involved in homicidal insanity; nor of the relations of the morbid instinct to the ideas, such as the study of the killing instinct in the lower animals would help to discover. In short, we have psychology as founded on thought about the *ego*, instead of as founded on observation of brain-structure and function as applied to medicine. The like confusion is made of a modern doctrine of brain-function of great pathological importance and simplicity. Griesinger taught the doctrines of reflex action in their applications to psychological medicine, and gives them a place in his practical work on *Mental Diseases*, from which J. B. T. quotes. It will be seen that the doctrines are not of the physiological kind. He observes: "The ideas transform themselves into effort and will under the impulse of an internal force, in which we recognise, even in the innermost sphere of the life of the soul, the fundamental law of reflex action." This may be occult. Whether or no, it is not in accordance with the scientific method, which never enters that "innermost sphere". This I may say, however, for Griesinger, that a man may appear to be psychologically occult, and yet the better for what makes him appear so. What a grand school of psychiatry we should have if J. B. T. and all superintendents of asylums were of the Griesinger stamp! I am glad to remember that some of my pupils are amongst them, and likely to do as good work as Griesinger, because of their scientific training. Upon the whole, then, I think we teachers of the practice of medicine may be excused from following J. B. T.'s advice as to our method of teaching.

I am, etc.,

T. LAYCOCK.

University of Edinburgh, March 27th, 1871.

SIR,—I quite agree with J. B. T.'s letter of this week, about the want of proper teaching of mental diseases in Edinburgh. It cannot be held that Professor Laycock's elaborate lectures, delivered in the summer, are part of his ordinary course of lectures on the Practice of Physic. At least, when I was a student, we never understood them to be so; and we had to pay an extra fee for them. As for his statement that thirty-one students attended them last summer, such a number may include the whole of his winter class, for aught I know; but it certainly is a very small proportion of the entire number attending lectures on the Practice of Physic in Edinburgh. Professor Laycock would do better by sparing a few lectures from the winter course, and devoting them to a short account of the leading features of the diseases termed insanity, than by delivering forty elaborate disquisitions on "psychical abnormalities" so important to the general practitioner as the "hunger and thirst of diabetes".

He gives two reasons for a "distinct but essential" course of lectures on Psychology being delivered by the Professor of Practice of Physic: first, that the study of insanity is an essential part of the practice of medicine; and secondly, that insanity, in its wide sense, is to be found throughout the whole range of the diseases within the province of the physician, and instances some "psychical abnormalities" as above. Now, as to the first, no one denies that the study of insanity is an essential part of the practice of medicine; and so are pathology, therapeutics, midwifery, forensic medicine, physiology, anatomy, and many more. But does Dr. Laycock deliver "distinct but essential" courses of lectures on all these subjects? To put it in another form, suppose the next occupant of Professor Laycock's chair (an appointment which, I trust, will be long deferred) to be one with a leaning towards precipitates, what is there to prevent him giving a "distinct but essential" course on the chemistry of food, showing the digestive abnormalities occasioned by a rash mixture of claret and whiskey, or beer and pea-soup? "No, no, you must play Pyramus." Then, as to the second reason—that insanity, in its wide sense, is to be found in many other places than asylums—no one denies that. But it is possible that an intelligent and cultivated asylum-physician, such as, for instance, Dr. Skae of Morningside, could give as clear and faithful, and certainly as practical, an account of insanity in all its forms, from "psychical abnormalities" to acute mania, as Dr. Laycock; while at the same time the making it a special study would be a more useful and surely more intelligible proceeding than turning it into a "distinct but essential" part of the course of lectures on the Practice of Medicine.

March 25th, 1871.

I am, etc., B. W.

OUT-PATIENT HOSPITAL REFORM.

SIR,—The Committee, which was appointed to inquire into the practicability of effecting any reform in the out-patient administration of our metropolitan charities, have at length completed their report, which is now in the hands of the printer. They have also agreed upon certain resolutions to be submitted to a meeting of the profession, which is to be held, by the kind permission of the President, at the rooms of the Royal Medical and Chirurgical Society, on Thursday, April 20th, at 8 o'clock P.M., when Sir William Fergusson, Bart., will take the chair.

The Committee have further decided to reprint the reports of the several subcommittees on general hospitals, special hospitals, free and provident dispensaries, and Poor-law medical relief. These documents together form a pamphlet of nearly sixty pages. They contain a great deal of most valuable information in regard to the abuses of the present system, or systems, of medical relief, and the means by which these abuses have been or may be remedied.

I need hardly say that, in endeavouring to do their work as completely as possible, and to put the profession and the public in possession of this information, which has been collected with great trouble and labour, the Committee have incurred considerable expense, and I venture to ask you once more to allow me to make this further appeal for help from those especially who have not borne the burden of work which we have willingly done; and I would especially appeal to the mass of general practitioners, inasmuch as the abuses, which we seek to remedy, affect them far more than they do the staffs of hospitals and dispensaries. The total liability of the Committee at present amounts to about £25; and, in order partly to meet this expense, the Committee hope that gentlemen wishing for copies of the collected reports and resolutions, will not object to send a dozen or more of postage-stamps.

The reports may be had by applying to Dr. Stallard, 7, King's Road, Bedford Row; to Dr. Heywood Smith, 2, Portugal Street, Grosvenor Square, or to yours, etc.,

27, George Street, Hanover Square.

ALFRED MEADOWS.

ELASTIC LIGATURES.

SIR,—In your otherwise accurate Report of the Proceedings of the Clinical Society, on the 10th of March, Mr. Cooper Forster is represented as having said that the plan which I adopted for the removal of the tongue was “the same as that which had been long employed in the treatment of nævus.” Upon this point, Mr. Cooper Forster's observations, as I understood them, referred to the disposition of the loops of ordinary ligatures to which the tongue was first tied. Judging from the difficulty which I had in obtaining the elastic ligature (which was applied after the other), I do not think that there can be much of it in London beyond the supply which was procured for me by Mr. Blaise from a manufacturing town. It is only recently, since I called the attention of the profession to its use, that it has been employed in the treatment of nævi.

I am, etc.,

HENRY LEE.

Savile Row, April 3rd, 1871.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

RETIREMENT OF A DISPENSARY MEDICAL OFFICER.

DR. DILLON has resigned the post of medical officer to the Ballaghaderreen dispensary district of the Castlerea Union, after a service of thirty-five years. The cause of his resignation is incapacity from illness. At the meeting of the Guardians, the chairman said he ought to have two-thirds of his salary as pension; and the guardians generally agreed that his long and valuable services ought to be properly recognised. It was, however, agreed that he should have £60—to be raised by a rate by a penny in the pound on the district; and the Commissioners have been requested to sanction the same. The salary of the medical officer of the district is, we believe, £110; so that, by the proposed arrangement, Dr. Dillon gets about £13 a year less than the sum to which he is acknowledged to be fairly entitled. This is an instance of the difficulties which interfere with the proper payment of a medical officer in a poor locality.

EXTRA FEES.

At the meeting of the Boyle Guardians (county Roscommon) on March 18th, Dr. O'Farrell, the medical officer of the workhouse, reported that

a man had been admitted with dislocation of the thigh, which was reduced with much trouble with the aid of pulleys. It was necessary to call in the aid of Dr. Fry, a practitioner residing in the town, and of Dr. McDermott, who had to come a distance of seven miles. Dr. O'Farrell proposed that an honorarium of £1 should be given to each of these gentlemen, with eight shillings to Dr. McDermott for car hire. The Board, however, did not think this amount enough, and voted two guineas to Dr. McDermott and one guinea to Dr. Fry. Dr. O'Farrell acknowledged that the usual fee on such occasions was two guineas; and we do not readily see what was his object in proposing a smaller amount, unless it were to give the guardians an opportunity of exhibiting their generosity, and expressing, as some of them did, the opinion that the payment of a fee below the ordinary one would not be likely to induce Dr. McDermott to come again if his services should be required.

A JUST ACT TOWARDS A MEDICAL OFFICER.

THE Sligo Board of Guardians, at a recent meeting, at which sixteen members were present, resolved (one only dissenting) to increase the salary of Dr. Powell, the medical officer of the workhouse, from £80 to £100. The proposer of the resolution and its supporters spoke in high terms of the manner in which Dr. Powell performed his duties. Mr. C. G. Jones, in moving the increase of salary, said that “he had always been of opinion that their medical officers were not so well paid as they should be, and as he would wish to see them, especially the officer of the house”. Mr. Olpherts, in seconding the resolution, “only wondered at the humiliation put upon Dr. Powell, in keeping him for so long a time on such a low salary”. Mr. P. O'Connor “thought the medical officers were not sufficiently paid at £100 a year. They should take into consideration the duty they had to discharge, and the position which, as gentlemen, they should occupy in life. When they had an officer who acted with economy, and with kindness to the poor under his charge, it was their duty to reward him”. Other members spoke in the same strain; the dissident alone—a Mr. Robinson—urging the increase of local taxation as a reason against the proposed increase. As has been above mentioned, the proposal was carried. We have noticed with much pleasure the proceedings on the occasion referred to, as they show that the Sligo Guardians recognise the high character and the value of the services rendered by their Poor-law medical officers.

LORD O'HAGAN'S LUNACY BILL.

1, Harrington Terrace, Dublin, April 3rd, 1871.

SIR,—Will you kindly permit me, through the medium of your columns, to bring the following correspondence under the notice of the members of the Poor-law Medical Officers' Association, Ireland? It is very gratifying, indeed, to observe the lively interest and the prompt action which our English brethren have taken in this matter. We have had several interviews with Sir Dominic Corrigan, Bart., M.P. for Dublin, who entered very warmly into the subject, and expressed his intention of communicating with the Lord Chancellor without delay. As soon as this has been done, we shall take immediate action on this important question. As it is probable that it will take the form of a petition to Parliament, we trust that every Poor-law medical officer to whom it will be duly forwarded will sign and return it without delay.

I am, etc.,

D. TOLER MAUNSELL,

Secretary Poor-law Medical Officers' Association, Ireland.

Poor-law Medical Officers' Association,

Medical Club, 9, Spring Gardens, March 28th, 1871.

Dear Sir,—I am requested to forward you a copy of a resolution unanimously agreed to at a meeting of the Council which has been held here to-night, and also the form of petition which the Council has directed to be engrossed and presented to the House of Commons.

I am further desired to inform you that the Council will use all their influence with the members of the Association, in urging on them the advisability of securing the support of such members of Parliament as they may know in furtherance of the prayer of the petition.

I am, dear sir, yours truly,

JOS. ROGERS.

Dr. D. T. Maunsell, Secretary of the Poor-law Medical Officers' Association.

“That the Council, having learnt that Lord O'Hagan, Lord Chancellor for Ireland, has introduced in the House of Lords a Lunacy Regulation (Ireland) Bill, consider the present moment opportune for calling the attention of the legislature to the disabilities under which the dispensary medical officers of Ireland labour in reference to the examination and certification of lunatics. They therefore resolve that a petition, of which the following is a copy, shall be drawn up, signed by

the President on behalf of the Council, and forwarded to Dr. Lyon Playfair, M.P., for presentation to the House of Commons."

"To the Honourable the Commons of Great Britain and Ireland in Parliament assembled."

"The humble petition of the Council of the Poor-law Medical Officers' Association of England and Wales

"Sheweth,—That whereas, by the fifteenth clause of the Medical Charities Act (Ireland), dispensary medical officers are required, without fee or reward, to examine and certify, under the statute in that behalf, as to the case of any dangerous lunatic brought before a justice of the peace within their respective districts; and whereas the performance of such duties, which necessitate great discrimination and judgment, are often accompanied by much loss of time and expense in travelling to and from the justices' residence, your petitioners hold that to impose such onerous obligations, without any additional pecuniary consideration beyond their salaries, must be felt to be a grievous injustice. Your petitioners therefore pray your honourable house that, having regard to the great services these gentlemen have rendered the community by the zealous manner in which they have performed their duties, as shown by the marked diminution in sickness and mortality, and by the curtailment of Poor-law expenditure, during the last nineteen years in Ireland, you will take their case into your consideration, and grant such reasonable payment as shall be a compensation for their outlay of time and money. And your petitioners will every pray.

"Signed on behalf of the Council,

"JOSEPH ROGERS, *President.*"

RETIREMENT OF A MEDICAL OFFICER.

DR. B. W. BRADSHAW, after having fulfilled with satisfaction to all the duties of medical officer to the Bansha dispensary district for twenty-three years, has been compelled to resign on account of ill-health. A meeting was held on the 29th March, for the purpose of considering the best manner of marking the public sense of his long and useful services.

VACANCIES.

MITCHELSTON UNION, co. Cork—Medical Officer for the Workhouse.
 OUGHTERARD UNION, co. Galway—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Cloonbur Dispensary District No. 2.
 WESTPORT UNION, co. Mayo—Medical Officer for the Islandeady Dispensary District.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The undermentioned gentleman passed his first professional examination, on April 4th, 1871.

Bream, Weston Fowler, St. George's Hospital

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners, on April 4th; and, when eligible, will be admitted to the pass examination.

Messrs. Henry Hetley, Thomas Henry Colley, Henry Ashby, T. Decimus Price, Edward J. W. Hicks, F. Akbar Mahomed, and W. Allason Simmonds (Students of Guy's Hospital); C. F. Hewick Kitchen, E. Arnold Birch, W. Parkinson Counsellor, and Frederick W. Jordan (Manchester School); M. Coleman Hallows, W. Littleton Webber, and J. Waldemar Roeckel (St. Bartholomew's Hospital); Edwin Price, Lewis P. Bateman, and Andrew Dobson (Birmingham School); J. Jaggel Pickles, John Hudson, and John Lambert (Leeds School); W. Franklin Coleman (London Hospital); Leonard Williams (St. Thomas's Hospital); William H. Bennett (St. George's Hospital); Francis J. Joynes (King's College); George F. Slack (Charing Cross Hospital); Frederick W. Lewis (Middlesex Hospital); and G. Pearson Bell (Hull School).

The following gentlemen passed on April 5th, 1871.

Messrs. William A. Garrard, William Stesicker, Harry Williams, William C. Hansell, Robert W. Murphy, and F. Wollaston Trevor (Students of Guy's Hospital); Herbert J. Iloit, Francis B. Brodribb, R. Winnington Leftwich, and Samuel Andrews (St. Bartholomew's Hospital); James Green, John H. Morris, G. Sutcliffe Stansfield, and James F. Hall, (Manchester School); J. E. Harrison Mackinlay, and Francis M. Evans (St. George's Hospital); George H. Batterbury, and E. Marriott Cooke (King's College); William Sunderland, and A. Vavasour Griffiths (Birmingham School); F. Marsden Granger, and Arthur Lascelles (Leeds School); Thomas E. Dakeyne (Westminster); J. Hopkyn Davis (Middlesex Hospital); Geo. W. Joseph (Liverpool School); William Dyson (University College); Arthur H. Laver (St. Thomas's Hospital); Harry T. Shapley (London Hospital); Geo. E. East (St. Mary's Hospital); and Arthur W. Orwin (Charing Cross Hospital).

Nine candidates on the first day and six on the second, having

failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their anatomical and physiological studies for three months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, March 30th, 1871.

Clark, Frederick, Park Place, Brixton
 De Lisle, Frederick Irving, Guernsey
 Frean, Richard, Middlesex Hospital
 Haines, Alfred Henry, Notting Hill
 Lloyd, William, Carmarthen
 Male, Henry Davis, Yeovil
 Morison, Bentham Paynter, Portclew, Pembroke
 Ward, Walter Alfred, Witney, Oxfordshire
 Wilkes, Charles Benjamin, Gloucester
 Wimberley, Frederick William, Louth, Lincolnshire

The following gentleman also on the same day passed his first professional examination.

Elam, Shrofield, Guy's Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

ALNWICK, Northumberland—Surgeon to the Gaol.
 ALNWICK INFIRMARY—Surgeon.
 BANBURY UNION, Oxfordshire—Medical Officer and Public Vaccinator for the Chipping Warden District.
 BETHLEM HOSPITAL—Two Resident Medical Students.
 BRISTOL LUNATIC ASYLUM, Stapleton—Medical Superintendent.
 CLIFTON DISPENSARY—Resident Medical Officer for the Redland Branch.
 DENTAL HOSPITAL OF LONDON—Dental Surgeon.
 EAST WARD UNION, Westmorland—Medical Officer and Public Vaccinator for the Brough District.
 ESSEX and COLCHESTER HOSPITAL—House-Surgeon and Apothecary.
 HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton—Assistant-Physician.
 KING'S COLLEGE, London—Professor of Psychological Medicine.
 LINCOLN COUNTY HOSPITAL—House-Surgeon and Apothecary.
 LINCOLN GENERAL DISPENSARY—House-Surgeon.
 LONDON FEVER HOSPITAL—Assistant-Physician.
 LONDON SCHOOL OF DENTAL SURGERY—Lecturer on Mechanical Dentistry.
 MIDDLESEX HOSPITAL—Resident Physician's Assistant.
 MIDDLESEX LUNATIC ASYLUM, Colney Hatch—Assistant Medical Officer for the Female Department.
 PRESTIGE UNION, Radnorshire—Medical Officer for the whole Union.
 QUEEN'S COLLEGE, Birmingham—Medical Tutor.
 ROYAL KENT DISPENSARY, Greenwich—Resident Medical Officer.
 ROYAL SURREY COUNTY HOSPITAL, Guildford—Assistant Honorary Medical Officer.
 ROYAL UNITED HOSPITAL, Bath—Honorary Physician.
 ST. PANCRAS—Public Vaccinator.
 SHAFTESBURY UNION—Medical Officer for the Fontmell District.
 SOUTH STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—House-Surgeon.
 SOUTHWELL UNION, Nottinghamshire—Medical Officer for the Southwell District and the Workhouse.
 SWANSEA HOSPITAL—Resident Medical Officer.
 UNST, Shetland—Parochial Medical Officer.
 WESTMINSTER HOSPITAL—House-Surgeon.

[For Poor-law Vacancies see Poor-law Department.]

MEDICAL APPOINTMENT.

Names marked with an asterisk are those of Members of the Association.

PHILPOT, C. W., M.D., appointed Resident Physician and Secretary to the Birmingham General Dispensary, *vice* *G. F. De la Cour, M.D., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

KEMP.—On January 12th, at Wellington, New Zealand, the wife of *William George Kemp, Esq., Surgeon, of a son.

DEATHS.

DAVENPORT, Charles, Esq., Surgeon, at Odd Rode, Lawton, Cheshire, aged 79, on March 22nd.

HODGES, Edward, M.D., at Redland, Bristol, aged 67, on April 1st.

MOYLAN, Michael F., Esq., Assistant-Surgeon R.N., on board H.M.S. *Pert*, aged 25, on February 1st.

RAINS.—On March 12th, at Cavendish Street, Manchester, aged 9 months, Samuel, only child of *S. Rains, Esq., Surgeon.

*ROBERTS, Owen, M.D., Hafod Elwy, St. Asaph, from an accident, on March 18th.

WOOLLEY, George, M.D., at 143, Camden Road, on March 30th.

FRANCES ROGERS, the Manchester Baby-farmer, was committed by the City Bench, Tuesday, April 3rd, 1871, on four charges—murder, attempted murder, obtaining money under false pretences, and neglecting to provide proper nourishment for the children placed under her care.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic Hospital, 2 P.M.

SATURDAY St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M.

TUESDAY.—Royal Medical and Chirurgical Society. 8 P.M., Ballot. 8.30 P.M., Dr. Silver, "On a Case of Retrogressive Labio-glosso-Laryngeal Paralysis"; Dr. Robert Lee, "On Amputation of the Cancerous Breast."

WEDNESDAY.—Epidemiological Society, 8 P.M. The present epidemic of Relapsing Fever. Papers by Mr. T. J. Dyke (Merthyr Tydvil), Dr. Robinson (Leeds), Dr. Buchanan, and Mr. J. Netten Radcliffe.—Hunterian Society, 8 P.M.—Royal Microscopical Society.

THURSDAY.—Royal Society.

FRIDAY.—Clinical Society of London, 8.30 P.M.—Dr. Broadbent, "On Phosphorus as a Remedy in Skin-Diseases;" Dr. Sims, "Case of Left Hemiplegia with Total Loss of Right Eye;" and other papers.—Royal Astronomical Society.

SATURDAY.—Association of Medical Officers of Health, 7.30 P.M.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with *halfpenny* stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE are unable to furnish Mr. Arden (Worcester) with the information which he desires.

SCOTUS.—The delay has been owing to special representations from well-informed quarters, arising out of the first article. The MS. will appear.

F.R.C.P. (Torquay) directs the attention of any of our readers who may take an interest in the subject of "Poisonous Fish", noticed in the JOURNAL of March 18th, to an article on that subject, containing a large number of cases, which appeared in last week's *All the Year Round*, No. 120.

MR. D. ROBERTS, L.R.C.P., needs only to communicate with the Registrar of the Branch Medical Council, Scotland, in Edinburgh, who will supply him with the necessary forms.

DR PHELPS (Ashley Place, Bristol) will esteem it a favour if any member will oblige him with a few vaccine points direct from the cow.

PURE MILK.

SIR,—The article in your issue of March 18th, on "Adulteration of Milk", after describing the practice by the London trade of watering and skimming the milk sold to customers as pure, goes on to say that "examples of both these operations have been afforded by London Milk Companies." This is no doubt true of some, but fortunately not of all companies. The Directors of this Company are gentlemen who under no conceivable circumstances would be parties to adulteration, and they have effectually guarded against adulteration by their servants. Not a drop of water ever finds its way into the milk sent out from any of their establishments. Accordingly, when analyses of London milk have been published, this Company has always come out well. I am, etc., D. J. MACONCHIE, Secretary. Dairy Reform Company (Limited), 29, Orchard Street, London, March 25th, 1871.

STAR CHAMBER PROCEEDINGS.—In reply to Dr. Hardie and Mr. Braddon, we have only to repeat that we never before heard of a committee using the publication of a vote of censure on gentlemen known and named, and yet withholding the names of the proposer and seconder of the resolution, or of those present, on whom the responsibility rests. Such a course seems to us without precedent, and indefensible. We repeat the opinion that, as one of the gentlemen to be censured is resident in the town, it would be fair and courteous to give him an opportunity of being present before the vote is discussed.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. F. H. HEATHCOTE, not later than *Thursday*, twelve o'clock.

DR. EDWARD WILLIAMS (Wrexham) is thanked for his enclosures.

RUSTICUS (Glasgow) would, we think, be much better without the "foreign diploma" advertised in the *Glasgow Herald*. Foreign diplomas obtained by answering advertisements are like a tin-kettle tied to a dog's tail—hollow sounding appendages, more offensive to their wearer than ornamental, and very apt to be dragged through the mire.

SUBCUTANEOUS DIVISION OF THE NECK OF THE THIGH-BONE.

SIR,—I have read with some interest the correspondence between Messrs. Adams and Brodhurst on the above subject, and should be glad to ask Mr. Brodhurst if he would kindly communicate to the profession, through the medium of your columns, particulars of the case upon which he operated at Brighton in 1861, giving the length and direction of the incisions, etc., as, from his letter in your last issue, the drawing and description which he gives are simply of "a somewhat similar deformity." Would it be asking too much if he would favour us with his notes of the particular case instead of a somewhat similar one?

Lancaster, April 2nd, 1871.

I am, etc., J. DANIEL MOORE, M.D.

SIR,—I thank you for allowing me to answer Dr. Moore's letter immediately. I intended to convey by the words "a somewhat similar deformity", that the angle at which ankylosis had taken place in the case on which I operated in 1861, was similar to that represented in your last impression, Fig. 1. I might have suppressed the word "somewhat"; but if I had done so, I should not have been exact, for no two of these cases are quite alike. But, especially, I intended to convey the impression that in the case on which I operated, the line of section could not be a straight line, any more than it could be a straight line in the specimen from which the drawing was made. In such cases, it is absolutely necessary to change the direction of the saw, as I have indicated by the line *a, b*, a portion of which is dotted, to show the direction of the saw.

I may further state that, when bony ankylosis has taken place, it is absolutely necessary that the section shall be made in a somewhat similar manner to that indicated—it may be a straight line, or the direction of the saw may require to be changed to complete the section; but the saw has to travel through bone varying in its circumference from eight and a half to six inches: and inasmuch as the neck of the bone is absorbed and much new bone is deposited, the section in bony ankylosis can never be made in the manner suggested by Mr. Adams. I am obliged to Dr. Moore for directing my attention to this point, which, it appears, I left doubtful. I shall be glad to send the notes of my case to you for publication, if you wish it.

20, Grosvenor Street, W., April 3rd.

I am, etc., B. E. BRODHURST.

* * We believe that any further points at issue may be best solved by discussion at one of the Societies.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, March 18th; The New York Medical Record, March 23rd; The Boston Medical and Surgical Journal, March 23rd; The Madras Mail, Jan. 23rd; The Shield, April 1st; The Philadelphia Medical Times, March 15th; The Philadelphia Medical Independent, March 18th; The Bayswater Chronicle, April 1st; The Epsomian for March; The Glasgow Herald, March 28th; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. F. Mason, London; Dr. James Thompson, Leamington; Mr. W. Fairlie Clarke, London; Mr. Hodgson, Brighton; Dr. Pearce, London; Mr. W. K. Parker, London; Mr. William Adams, London; Dr. Oliver, Redcar; Mr. Benson Baker, London; Dr. Woodward, Worcester; X., Edinburgh; The Secretary of the Royal Medical and Chirurgical Society; Dr. Phelps, Bristol; Dr. Tilbury Fox, London; The Secretary of the Medical Club; Dr. J. Alexander Ross, Hartshill, Stoke-upon-Trent; Dr. Lionel Beale, London; Mr. T. Edmondston, Edinburgh; Mr. F. H. Hodges, Birmingham; Mr. S. Rains, Manchester; The Secretary of the Epidemiological Society; The Secretary of the Worcestershire Medical Society; Mr. Haviland, London; Mr. Rushton Parker, University College; Scotus, Isle of Portland; Mr. R. M. Mann, Manchester; Mr. David Roberts, Coldstream; Dr. A. B. Steele, Liverpool; Dr. Day, Torquay; Mr. Alexander Rae, London; Mr. Moody, College of Physicians, London; Dr. Jones, Rathmines; Mr. Husband, York; Mr. Braddon, Manchester; Dr. Hardie, Manchester; Captain Burgess, Naval and Military Club; Dr. Jelly, Madrid; The Registrar of the University of London; Two Sympathisers, Manchester; etc.

LETTERS, ETC. (with enclosures), from:—

Dr. S. J. Gee, London; Mr. Henry Lee, London; Dr. J. Bell, Edinburgh; Dr. Bradbury, Cambridge; Dr. H. Thompson, London; Dr. A. E. Sansom, London; Dr. G. F. De la Cour, Birmingham; Mr. W. G. Kemp, Wellington, New Zealand; Our Liverpool Correspondent; Dr. E. Williams, Wrexham; Dr. G. H. Philipson, Newcastle-upon-Tyne; Mr. Colthurst, Taunton; Dr. D. W. Williams, London; Dr. Laycock, Edinburgh; M.R.C.S.; Dr. J. D. Rendle, London; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Our Dublin Correspondent; Dr. J. Frank Payne, London; Messrs. W. H. Smith and Son, London; Mr. B. E. Brodhurst, London; Dr. J. D. Moore, Lancaster; Dr. Alfred Meadows, London; Dr. Edward T. Wilson, Cheltenham; Mr. D. Tulloch, Loch Cairn; Mr. T. O. Brown, St. Asaph; Dr. William Newman, Stamford; Mr. George Jones, Birmingham; The Secretary of the Manchester Medico-Ethical Association; Mr. Arthur W. Waters, Lugano; Mr. Southam, Manchester; Dr. Attfield, London; Our Manchester Correspondent; Our Edinburgh Correspondent; Mr. F. Churchill, London; Dr. Falconer, Bath; etc.

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OLD MARSALA WINE

Guaranteed the finest imported; free from acidity or heat, and much superior to low-priced Sherry. One Guinea per dozen. From Madeira, a rich, soft, golden, wine, 30s. per dozen. Mazzara, a stout, brown Wine, with Sherry Character, 28s. per dozen. 3 dozen and upwards carriage free by rail to all England and Wales. For highly favourable opinion of W. D. WATSON'S Old Marsala Wine, see *British Medical Journal*, Dec. 26, 1868; *Medical Times and Gazette*, No. 770, April 1st, 1865, p. 345, or Dr. Druitt's "Report on Cheap Wines", p. 174.

W. D. WATSON, Wine Merchant, 373 Oxford Street (entrance in Berwick Street), London, W. Established 1841. Terms Cash.

Presenting the advantages of Known Composition & Uniform Strength.

F. 3j contains Morphine Mur., gr. 1, Tinct. Can. Ind., gtt. v.

LIQ. CHLORODYNII, (TOWLE'S),
 In 1 lb. Bottles, at 12s.; ½ lb., 6s. 6d. each; put up expressly for Dispensing purposes, &c.

TOWLE'S CHLORODYNE.

2 oz., 2s. 9d.; 4 oz., 4s. d.; 10 oz., 11s., stamped,
LIQ. CHLOROFORMI CO. (vel)
 CHLORODYNE, SINE OL. MENTH. PIP.
 2 oz., 2s. 6d.; 4 oz., 4s.; 8 oz., 8s.

MANUFACTORY, MANCHESTER.

GRANT'S MORELLA CHERRY BRANDY,

from the fine Kent Morella, besides being the most delicious Liqueur, is recommended by Medical Men of high standing in all cases of Weakness and in various internal Disorders. It may be obtained through any Wine Merchant, or direct from T. GRANT, Distiller, Maidstone, at 42s. per dozen case. A copy of testimonials and sample sent to any established Medical Practitioner on application.

KINAHAN'S LL. WHISKY.

This celebrated and most delicious old mellow spirit is the very CREAM OF IRISH WHISKIES, in quality unrivalled, perfectly pure, and more wholesome than the finest Cognac Brandy.

Note the words "Kinahan's LL. Whisky", on Seal, Label, and Cork.

Wholesale Depôt, 6A, Great Titchfield Street, Oxford Street, W.

Cadbury's Cocoa Essence,

Registered, Guaranteed a genuine preparation of the Cocoa Nib.

"The excess of fatty matter which makes cocoa indigestible to many stomachs is removed....Cocoa treated thus will we expect prove to be one of the most nutritious, digestible, and restorative of drinks."—*British Medical Journal*, July 20, 1867.

CHALYBEATE LEMONADE

AND

CHALYBEATE SALINE LEMONADE.

"Messrs. A. MAY-DAVIS & Co., Esher Street, Westminster, have introduced a really admirable chalybeate lemonade, which will be likely to be largely used in private practice. The one objection to chalybeates is the strong flavour of 'flat-irons.' Not only is this entirely overcome in the very agreeable lemonade which they have produced, but the beverage is most enticingly pleasant. Each bottle is warranted to contain five grains of citrate of iron; and of the chalybeate saline lemonade each bottle contains also twenty grains of citrate of potash. Medicine is here not merely disguised, but transformed. We think many a prescriber will be glad to know of a preparation which is an undoubted boon to patients. The lemonade sells at 4s. a dozen, or 3s. 6d. in larger quantities. This gives an average price of 3½d. to 4d. a bottle. An ordinary six-ounce mixture, with citrate of iron and syrup of orange-peel costs about 1s. 8d., or 3½d. a dose. The money balance, therefore, is not much in favour of the mixture, and the point of flavour is largely in favour of the lemonade."—*British Medical Journal*, March 4, 1871.

Chalybeate Lemonade may be obtained from Chemists, &c., at 4s. per doz., direct and wholesale from the Proprietors and sole Manufacturers, A. MAY-DAVIS and CO., Esher-street, Westminster, S.W., who will be happy to forward Samples free of charge to any member of the Medical Profession.

Hedges and Butler solicit attention to their

SPARKLING EPERNAY CHAMPAGNE,

Choice quality, at 48s. per dozen.

Champagne of various shippers .. 36s. 42s. 66s. & 78s.
 Good Dinner Sherry 24s. & 30s.
 Superior Golden, Pale, or Brown
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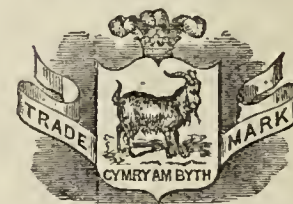
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ANNUAL ADDRESS

DELIVERED AT

THE ROYAL COLLEGE OF PHYSICIANS, LONDON.

By SIR JAMES ALDERSON, M.D., D.C.L., F.R.S.,
President of the College.

I HAVE now again the honour of making a brief statement of the occurrences of the year, which I am able to do with much satisfaction, although there may not be much to record beyond the usual transactions of the College.

There have been several official communications with the Government. In the month of July, the Colonial Secretary, Lord Kimberley, appealed to the College to nominate a physician whose opinion would carry weight with the whole profession, who should proceed to the West Indies to investigate the value of Dr. Beauputy's alleged discovery of a specific treatment for the cure of leprosy. The College were invited not only to nominate, but to fix the remuneration. It was unanimously decided that Dr. Milroy was eminently fitted for the appointment, and his nomination, together with the amount of the remuneration, were approved of at the Colonial Office. The delay in the departure of Dr. Milroy is now only owing to the Colonial Office not having quite completed their arrangements with the local authorities of the islands in regard to the expenses of the mission. Towards the end of the Parliamentary session, a deputation of the College waited on the Lord President of the Council to explain the tendency of certain clauses of his Medical Bill. I need not enter minutely into the subject, as the Bill was withdrawn from the House of Lords, a slaughtered innocent; and many more are likely to follow the same fate.

The usual delivery of the Harveian Oration and the Endowed Lectures have been this year especially conducive to the reputation of the College. Dr. Gull's Harveian Oration was acknowledged by all to be an admirable and instructive composition most effectively delivered. Dr. Gee's Gulstonian Lectures were obviously the result of earnest study, and displayed a power of handling medical philosophy which it is most satisfactory to observe in a younger member of the profession. Dr. Parkes's Croonian Lectures have been listened to with great approbation, and it is considered that some of his investigations and statements on the subject of animal chemistry will cause a modification of certain generally received opinions. I must be allowed to refer especially to Dr. West's Lumleian Lectures, which he has just concluded. Whether I should specify the graceful exordium—the amount of keen observation and practical experience displayed throughout—or the beautiful connection of his subject with the *religio medici* at the conclusion, I feel sure that I should not overstate the general opinion by saying that these lectures will reflect lustre on the College.

Whilst adverting to the superior character of the lectures of the year, it is an appropriate time to introduce a proposition which has been made to me by the Registrar; it appears to me most judicious, and calculated, as all his well-thought-out suggestions are, to benefit both the College and the profession. I therefore recommend to your consideration that in future the Endowed Lectures should be published by the College. The step would only be the resumption of an old custom; and if the idea should meet with the concurrence of the Treasurer, I hope that it will also obtain your support.

In regard to the election of Fellows, I have to report a considerable expansion of the usual number, an increase which we shall not probably err in attributing to the greater number of meritorious names brought before the Council in consequence of the altered bye-law. The number elected this year is twenty-four, of whom twenty-three have been admitted; the twenty-fourth, who resides in Australia, not having yet answered the letter of the Registrar. The number of members admitted has been seventeen, and forty-nine gentlemen have received the Licence of the College to practise. The number of Fellows deceased amounts to nine; the number of Members to fifteen; the number of Extra-Licentiates to six; and the number of Licentiates to seven. The list of deceased Fellows includes names which are prominent in the annals of the College.

One of the first in the date of his departure—Dr. Mayo—will also be

considered first to claim the consideration of the College, since he filled the office of President for a period of five years. He was several times Censor, and in 1847 was chosen one of the eight elects under the Act of Henry VIII, and under the same Act he succeeded to the Presidency after the death of Dr. Paris. Dr. Mayo's early academical career was unusually distinguished; competing with and distancing men who, in other professions, subsequently obtained the highest positions as regards honour and emolument. He took a first class in classics, gained a Fellowship at Oriel, and was esteemed a sound critical scholar. It was unfortunate for his career that his peculiar mental endowments were rather adapted to metaphysics and speculative philosophy, than to pure science and those practical attainments required for his profession. He first commenced practice at Tunbridge Wells, where his father preceded him, and he removed to London without, however, attaching himself to any public hospital. He received the compliment of being retained in his office as President for one year by the free voice of the Fellows, on the change of the system of election. On retiring from that position he made a most desirable marriage, and spent many of his declining years in affluent seclusion from professional life. His well chosen partner unhappily preceded him. It was not long, however, before he closed his long life, aged 82, under the kind care of one of his sons.

Next in order stands the name of Dr. Copland, worthy of our special mention, as inferior to few who have made their mark in medical literature. In form of biographical notice, I will only mention that he was born in 1791, in one of the Shetland Islands, and received his medical education in Edinburgh and Paris. He was elected Fellow of the College in 1838; served the office of Censor several times; and delivered the Gulstonian, Croonian, and Lumleian lectures. He was also Harveian Orator, and gave the oration in Latin in 1857. Dr. Copland's reputation rests chiefly on the results of his indefatigable labours in medical literature. His *Dictionary* was composed by himself, without seeking contributions from any other person, and the work is highly esteemed by students both at home and abroad. Dr. Copland enjoyed much popularity with the profession, which was fully earned by the clear sincerity of his character, by his strong judgment, and by his unswerving adherence to his carefully adopted opinions and rules of conduct. He closed his long life at Kilburn.

There are many among those whom I address who will bestow a tribute of regret on the name of Dr. John Meyer. He took his degree of Doctor of Medicine at Heidelberg, and held a government office in an asylum in Tasmania. After his return to England he obtained an excellent field for the employment for his talent of organisation, by an appointment to form a Hospital at Smyrna during the Crimean war. Having performed his duties with the utmost credit, he again returned to England, and was appointed Physician to the Surrey Lunatic Asylum; thence he was transferred to be Superintendent of the Criminal Asylum at Broadmoor, of which he was the organiser. Dr. Meyer was a most conscientious and efficient public servant, and deserves honourable mention among others who have proved themselves worthy.

The College will gladly join in a regretful record of the death of Dr. Symonds, who was among the most gifted and successful of the Fellows. He was Physician to the General Hospital at Bristol, in which town and neighbourhood he had pursued a most extensive practice, winning a high reputation and great personal esteem. He was elected Fellow of the College in 1857, and gave the Gulstonian Lectures. He not only wrote on medical subjects, but also on many general topics, displaying a highly cultivated and accomplished mind. In his provincial practice he was the leader of all scientific and benevolent institutions, and his career may in every respect be regarded as a model of the highest type of the provincial physician. He died at the comparatively early age of 63.

I close my special notices of the deceased Fellows with the name of one on whose memory my personal feelings prompt me to dwell a little longer than his recent small intercourse with the College may seem to justify. Dr. Thomas Waterfield, who lately died at his house at Brompton, was educated at Christ's College, Cambridge, where he entered as a Fellow Commoner in consequence of being older than the men of his year. After taking his M.D. degree he settled in London, and filled the office of Censor to the College. He was early appointed, chiefly through the influence of his intimate friend Sir Charles Locock, to a Commissionership in Lunacy, and he performed the duties of the office with great zeal and ability, until a Bill in Parliament limited the number of Commissioners, and, being one of the juniors, he lost his appointment. Being possessed of an ample fortune, he made little effort to return to the private practice of his profession. He passed the last twenty years of his life in comparative seclusion, enjoying only the society of a few select friends, by whom his numerous good qualities were highly valued. It is to be regretted that circumstances withdrew him from the profession of which he would have been a most honour-

able and honoured member. A character of more firm integrity could scarcely be conceived. He had a high sense of honour, true and kind feelings, and he possessed an excellent judgment on every topic which he handled. Few men will be more deeply and affectionately regretted.

Amongst the members of the College whose loss we most deplore, there stands prominently forward the name of Sir James Clark—illustriously distinguished by high personal endowment, and by having been the recipient of such a measure of royal favour as it has been the lot of few courtiers to enjoy for so long a period and without the smallest intermission. It seems superfluous to me to record the circumstances of his career or to sketch his character. His career was one of uninterrupted prosperity, receiving no shock from adventitious circumstances. His character was as pure and serene as his life was prosperous. He, too, lived to the extreme term of natural life. In regard to his connection with this College, it is to be regretted that he came upon the scene of English professional life when a certain leaning towards academical exclusiveness, joined to the elevated position which he had achieved in the confidence of royalty, introduced a certain difficulty to his uniting himself heartily with College interests. Several communications which I had with him in later life caused me to regret these circumstances, because it was quite apparent that he was disposed to regard our Institution with most favourable and respectful interest.

I may now refer to the two topics—the property of the College, and the trusts which are officially vested in the President. In regard to the property, though it has sometimes been spoken of in former reports, it is a subject which properly belongs to the Treasurer, and on which he has made his own statement. I may more appropriately say a few words about the trusts. The Tancred Trust has been allowed to pass through a year of unmolested tranquillity, greater than might have been expected from the attack which had been previously made upon it. Greatly through the influence of Mr. Spencer Walpole, the entire concurrence of the Charity Commissioners has been obtained in a Bill, now likely to pass through Parliament, by which the management of the Charity will be placed on a sure foundation. I have to report that I again joined the other trustees in the annual visit of inspection in Yorkshire, and found the condition of the property and the state of the establishment much more satisfactory than on some former occasions.

When I last rendered a short account of the proceedings regarding a proposed new system of joint examinations by the medical authorities, I concluded by expressing a strong hope that the labours of your Committee would shortly result in some truly beneficial and permanent arrangement. We all lament that we are not yet in a position to congratulate ourselves on that wish having been fulfilled, although the desire on the part of the College to meet a pressure from without for what has been rightly or wrongly called medical reform has not abated, and although the past year has been spent in anxious deliberation and unsparing devotion both of time and energy in attempts to solve the great difficulty of how best to establish that reform.

I now offer you a brief sketch of the proceedings since I last addressed you. Our last annual meeting was quickly followed by the introduction into Parliament of a Government Bill, in which the scheme so carefully prepared and so nearly brought to perfection by the Joint Committee—a scheme which contained much disinterested concession and the utmost probability of working for the good of the whole profession—was adopted as the basis of the Government measure. There was, however, this difference, that it was proposed to place the working of the system exclusively and entirely in the hands of the General Council of Medical Education and Registration. I need not point out that this was a proposal simply to dispense with the functions of the old Corporations, and to invest their licensing powers in another and variously constituted body—a body which possesses few qualifications for the performance of those other important duties for which the original Corporations were instituted. Every Fellow of the College is competent to judge for himself whether such organic change would be likely to ensure a higher standard of knowledge and general competency among the vast body of practitioners; whether also it would increase the means of attracting into the higher walks of the profession men of the best education and most commanding talents, uniting the highest cultivation with purest tone of thought and with habits most refined and gentlemanly. That our ranks should continue to be recruited from such a class of men, must be the ardent wish of all who long to see the profession sustained in the highest possible social and scientific position. The fate of this Bill, which was little calculated to promote these important objects, was, however, decided, not by opposition from the ancient Corporations, but by the dissatisfaction of a large body of associated practitioners who desired to remodel—in fact, almost to revolutionise—that identical General Medical Council to which the Government proposed to entrust the whole licensing power

of the kingdom. The Bill was withdrawn; and our scheme, which was still awaiting the full co-operation of the Universities, remained in abeyance. Thus the work which had been laboriously effected by the Committee, and which had received your sanction, was rendered nugatory.

In this apparently discouraging state of things, the College was still not disposed to be inactive. You were not prepared passively to allow that those ancient institutions which severally include all the qualified members of the profession, and which have worked so well for centuries, should resign the function which they are not merely the *most* fitted, but which they *alone* are fitted, to perform. You organised another effort, and appointed a fresh Committee, with “instruction to consider and report to the College how best to form an Examining Board for the examination of candidates for licences to practise medicine, surgery, and midwifery.” In conjunction with the College of Surgeons and the Society of Apothecaries, a scheme was agreed upon in Committee, complete in principle, but still unfinished in detail. At that stage of the proceedings, it was expedient that each College or its governing body should sanction the work as far as it had proceeded. Your Committee therefore placed the scheme before you; and it was accepted by the College, although, I am bound to say, not without some degree of hesitation. It appears that the College of Surgeons have not been so united in sanctioning the scheme of the Committee. There seems to have been some misunderstanding as to the nature of the instructions given by the Council; but we have no official communication as to their ultimate decision.

It is, perhaps, desirable that I should now explain, for the information of those Fellows who have not followed the subject very closely, that there exists a question about a minor and a major scheme. I speak first of the minor scheme, since it is that with which the Committee have been lately occupied. It consists of the union of the three corporate bodies to form a joint Board for the examinations of practitioners in medicine, surgery, and midwifery, and its advantage, besides that it reduces the number of Examining Boards from three to one, comprises this—that no candidate would be passed as qualified to practise except by the decision of the whole Board of Examiners, the Corporations agreeing not to admit any candidate for their separate licences.

The major scheme—that which occupied the Committee of last year—required all the Universities to join the Corporations, either as examiners or assessors. The examinations of this Board were to be undergone by every person on entering the profession, to whatever ultimate status he might propose to proceed. This major scheme thus includes what has been called the one-portal system; it received your approbation last year, and it is probable that you may be asked again to empower your Committee to carry it forward. In regard to the present position of medical affairs outside the Colleges, you are aware that there are numerous attempts at legislation going on. One Bill we understand to have been already withdrawn; and I have no doubt that you will all be of opinion that the most hopeful way of arresting crude legislative propositions, founded on doubtful principles, will be to anticipate change by agreeing amongst ourselves about the soundest and most practicable arrangements, always preserving the government of the profession in the hands of the profession itself, as embodied in the ancient institutions.

I beg to reiterate the earnest hope that our efforts in this direction may lead to the happy solution of all our present difficulties.

TREATMENT OF DELIRIUM TREMENS BY HYDRATE OF CHLORAL.
—M. Curschmann adds his testimony to that of many other writers to the value of this remedy. In his earlier cases he states that he did not exceed from 45 to 60 grains for a dose, but subsequently administered 105 grains, a quantity that we at least should consider to be dangerous. He states that Liebreich has even gone as far as 120 grains for a dose. When it has been given, the patient should be allowed to remain at perfect rest and, if we may use the expression, have his sleep out. He thinks, the stronger the alcoholic potations in which the patient has been accustomed to indulge, the larger is the dose required. Sleep is usually induced in from fifteen to thirty minutes, rarely more speedily, sometimes much longer. The respiration during sleep becomes deep and regular. The pulse is sometimes increased at the commencement of the narcosis, but subsequently falls. The usual duration of the sleep was from nine to twelve hours, but in one case it was twenty-one hours, with a break of half an hour at the thirteenth hour. Disagreeable effects from chloral of any kind were rare, but he thinks an augmentation in the number of cases of laryngitis was due to its use. (*Deutsches Archiv*, Band viii, January 1871; and *The Practitioner*, April 1871.)

GULSTONIAN LECTURES ON THE HEAT OF THE BODY.

DELIVERED AT

The Royal College of Physicians, London,

MARCH 1871.

BY SAMUEL J. GEE, M.D., F.R.C.P.,

Assistant-Physician to St. Bartholomew's Hospital and to the Hospital for Sick Children.

LECTURE III.—*Concluded.*

THE effects of pyrexia which we have considered hitherto have been those which are discovered after death. But there are several conditions to be studied upon the living patient, which, also, we may look upon as consequences of pyrexia.

When we were going over, a short time ago, the proofs that there is an augmented oxidation of the tissues in fever, one of the proofs which we noted was the increased formation of urea. But if, indeed, fever beget fever, we should expect to find that an increased excretion of urea is not only an accompaniment of pyrexia, but also a consequence thereof. Is this really so? when the temperature of the body is raised by artificial means, is the excreted urea increased in quantity? Bartels and Naunyn have made experiments upon this question, and answer it in the affirmative. For example, Naunyn shut up a dog in a vapour-bath, and thereby raised his temperature in three hours from 102.2 deg. to 108.5 deg.; the quantity of urea excreted during that period was much greater than natural. And thus we have another argument in favour of an increased destruction of the body-tissues dependent upon pyrexia.

Next: in the tissues which are open to our inspection during life, I mean the mucous membranes and the skin, are there any changes which we may regard as due to the pyrexia?

First, of the mucous membranes. Laennec declares that pulmonary catarrh usually complicates fevers of all kinds. Now we may undoubtedly drop Laennec's qualification, pulmonary catarrh, and plainly say that catarrh in general, of the respiratory, digestive, and urinary passages, usually complicates fever. For what else than a catarrh of the mouth is that furred tongue to which we so often look for purposes of diagnosis and prognosis in febrile diseases? And, again, with regard to the lungs, Laennec observes that "one of the most interesting results which auscultation has afforded him, is the constant existence of a latent or manifest pulmonary catarrh during the whole course of continued fever. In the beginning, and often during the whole of the disease, the catarrh is latent, without cough or expectoration, and can be detected only by means of the stethoscope. In the eruptive fevers, the pulmonary catarrh is quite as constant, and mostly manifest. And in intermittent and symptomatic fevers, there is also pulmonary catarrh, usually latent." Laennec goes on to remark that the inflammatory fever of nosologists, characterised by the rosy colour of the face, the moisture and cleanness of the tongue, and the moderate heat and dampness of the skin, is of all fevers that in which the signs of catarrh are least marked. And let us note that by inflammatory fever was meant a fever from which symptoms of putridity and debility were, in like manner, wholly absent. Another fact of which Laennec speaks, and to which we can all bear witness, is a very striking illustration of the close connexion between catarrh and pyrexia. "I have often wondered," says he, "how that, in fevers which come to a perfect crisis, at that very moment all the signs of an intense and extensive catarrh vanish along with the coma, the meteorism, the frequency of the pulse, and the heat of the skin." I think that I have said enough, or, what is much better, that Laennec has said enough, to justify our looking upon catarrh as a consequence, almost necessary, of pyrexia.

Secondly, as to the skin. Except during the cold stages, an injected state of skin is so constant an accompaniment of pyrexia, that we may fairly consider the one to be an effect of the other. That is to say, the skin is injected whilst the patient is radiating more heat than natural therefrom. The exact appearance of the injected skin differs in different cases, and varies in the same case, according to conditions which we do not understand. I do not speak of specific eruptions. The present unwonted epidemic of small-pox has afforded us the means of seeing these pyretic eruptions, common to any kind of fever. I refer to the rashes which appear in variolous patients before the outbreak of the peculiar eruption. Sydenham, who must have been studied of late

more than for many years past, in our necessity of knowing something about a disease which to many of us had seemed almost extinct, refers to these eruptions where he says that small-pox breaks out sometimes like erysipelas, sometimes like measles. Sometimes like erysipelas: that is to say, the exanthem is an uniform blush like that of belladonna-poisoning—a roseola, in fact, roseola variolosa as it has been called. Sometimes like measles: this, apparently, is not at all uncommon, for the shotty papulæ of variola to be preceded by a measly eruption. And to these two forms of rash in small-pox, others may be added. The precedent eruption sometimes possesses all the characters of a scarlet-fever rash, minute scarlet points thickly set. Sometimes the eruption is identical with that which is commonly called the subcuticular mottling of typhus. In a patient at Saint Bartholomew's, the eruption simulated, first, the rash of measles, then that of scarlet fever, before the appearance of the true variolous eruption upon the fifth day. There is nothing peculiar to small-pox in these exanthemata. The scarlatini-form, roseolous, and typhus-like eruptions are very common in pyrexia. I have seen perfect subcuticular mottling in sunstroke and in acute tuberculosis; hence the difficulties of diagnosis, with which we are all too familiar. These eruptions have been called sudoral by Trousseau, when the fluxion upon the skin results in sweating.

I must now ask your attention to another subject.

The temperature of the healthy body is a mean struck between a very variable amount of heat produced, and a corresponding variable amount of heat lost; and the body has the power of balancing this gain and loss very nicely within certain limits; it has the power of regulating its temperature independently of voluntary means. It is said that great muscular exercise may increase the activity of the body's combustion to such an extent that the quantity of carbonic acid excreted shall be augmented nine-fold. Now, not more than one-fifth of the force set free becomes mechanical work, the rest passes into heat; yet the excessive amount of heat generated in the case supposed does not produce pyrexia, but it is got rid of in some manner; the regulating power of the body maintains its authority. In fever, likewise, there is an increased production of heat and an increased loss of heat, yet the temperature is not maintained at the normal standard, but at an abnormally high standard. How is this state of things to be explained? An adequate answer to this question would obviously carry us to the very starting place of fever, to its immediate cause. Let us prepare ourselves for the discussion of this great subject, by recapitulating the facts which have been learned concerning the influence of the nervous system upon the heat of the body. We are not yet compelled to content ourselves with hypotheses; and therefore I will pass by the more or less happy guesses of early physiologists, and come at once to the Croonian Lectures which Brodie read before the Royal Society in 1810. He showed that, when a dog was pithed and artificial respiration was kept up, the temperature fell from 100 deg. to 78 deg. in two hours and a half; in fact, the animal cooled more rapidly under artificial respiration than he would have done had he been simply left alone after having been pithed. From experiments of this kind Brodie drew the following conclusions: that the heat of the body is not due to changes produced in the blood by respiration; that, when the air respired is colder than the natural temperature of the body, the effect of respiration is not only not to generate animal heat but actually to diminish it; and that, when the influence of the brain is cut off, no heat is generated. We will not stay to criticise Brodie's conclusions, but merely observe the fruitful field of experiment which he thus opened. In 1836, he returned to the topic, with reference to a case of injury to the spinal cord between the fifth and sixth cervical vertebrae, the temperature of the body rising to 111 deg. Since Brodie's time, the same accident of injury to the spinal marrow, and the same consequence of great elevation of temperature, have been observed in five cases; namely, three by Billroth, by Simon, and by Frerichs, and two cases which were recorded by Dr. Hermann Weber in the first volume of the *Transactions of the Clinical Society*.

Next came Bernard's experiments upon the sympathetic nerve, of which Marey's theory of fever, which we previously discussed, was the direct offspring. When the sympathetic is divided, the part which is thrown thereby into a state of active congestion, with increased afflux of blood, is raised in temperature: there is an approach towards equalisation of the temperatures of the internal and of the superficial parts of the body. But the body generally, and the deeply seated parts in particular, really fall in temperature, because of the increased loss of heat from the actively congested patch of skin. When this loss of heat is prevented, by preventing radiation from the skin, the internal temperature does not fall. Budge went a step further, by showing that the vaso-motor nerves are paralysed not only by section of the sympathetic, but also by section of the corresponding portion of the spinal cord.

At this point Tscheschichin took up the subject. He found that division of the spinal cord was followed, not as in Brodie's case by ele-

vation of temperature, but contrariwise by depression of temperature. For example: a rabbit's spinal cord was divided between the third and fourth cervical vertebræ: the temperature of the rectum fell to 79 degs. in four hours: the animal lived sixteen hours after the operation. Tscheschichin explains this fall of temperature in the following manner. First, the production of heat is diminished as a result of weakening the force of the heart's contractions, and also of impeding the respiratory movements; and, secondly, the loss of heat is increased for the reason of which we spoke with reference to the sympathetic nerve, namely, the dilatation of the cutaneous vessels. The loss of heat which ensues upon varnishing the skin of animals, and which causes their death, was, you will remember, found to be due to the same condition. Now varnished animals can be kept alive if the loss of heat by radiation from the surface be prevented; therefore it becomes of interest to know whether the depression of temperature consequent upon section of the cord can be obviated in the same manner. Tscheschichin says it cannot; he divided the spinal cord of a rabbit between the fifth and sixth cervical vertebræ, and immediately wrapped the animal in cotton-wool. Nevertheless, the temperature fell, although not nearly so quickly as in the other experiment: moreover, life was prolonged. The day after the operation, the temperature was 89.75 degs.; the rabbit did not die until the third day. Thus this experiment seemed to prove that increased loss of heat will not account for all the depression of temperature in the cases under consideration. If this be so, there must be diminished production of heat also, probably consequent, so Tscheschichin supposes, upon interference with the functions of the heart and lungs. And if this be so, we should expect that division of the par vagum would depress the temperature. Well, as a matter of fact, section of the vagi produces no very definite effect upon the body-heat; at first, certainly, the temperature does fall a little, the respiration is slackened, and the contractions of the heart become very frequent; but the temperature is soon raised by the inflammatory engorgement of the lungs which rapidly ensues. So far then, section of the vagi hardly bears out Tscheschichin's opinion that the generation of heat is diminished.

The higher up in the cord the section is made, the greater the depression of temperature. But so soon as the uppermost part of the medullary oblongata is reached, so soon as the cord is severed from the pons Varolii, a great change is found to occur in the symptoms. The temperature, instead of falling, greatly rises. The animal may live for several hours even after this extremely severe lesion. A rabbit operated upon in this way by Tscheschichin rose in temperature to 108.75 deg. before it died, about two hours after the operation. He regards this pyrexia to be indicative of an inhibitory power residing above the medulla oblongata, and controlling the independent activity of the cord; to divide the brain from the cord unchains the spinal animal functions, and suffers the combustion of the body to go on without restraint. Pyrexia, then, is a paralysis of this inhibitory centre; a paralysis which can be induced in sundry ways; for instance, by injuriously active substances present in the blood, septic and other matters; or by an external irritation which acts powerfully upon the psychical and sensible sphere of the organism, and affects the moderator centre reflectively.

Such is Tscheschichin's theory; but his experiments, as we have already seen, are at variance with the clinical experience of Brodie and others. In order to clear up the cause of this discrepancy, the vivisections have been repeated by Naunyn and Quincke. These observers note, in the first place, that two of the cases of accidental injury to the cord, followed by high pyrexia, are stated to have occurred in the summer time; in Brodie's, Billroth's, and Dr. Weber's cases, there are no particulars upon this point, so that the question is again suggested: Was the depressed temperature, in Tscheschichin's experiments, really due, after all, to loss of heat? He endeavoured to obviate this objection, we saw, by wrapping the animals in wadding, and the temperature certainly fell much less rapidly than when no such precaution was taken. Naunyn and Quincke regard this method of preventing loss of heat as imperfect. Instead of using cotton-wool, they put the large dogs they operated upon into a box maintained at a heat between 78 deg. and 86 deg. And, instead of cutting the spinal cord with a sharp instrument, they crushed it, and thereby sought to imitate accidental injuries more closely, and also to prevent loss of blood. A dog, at a temperature of 103.5 deg. was operated upon in this way, on a level with the seventh cervical vertebræ. In twenty-four hours the temperature fell to 74.5 deg., and then the animal was put into the warm box; his temperature rose in five hours to 104.5., and then he died. Even when the dog was put into the box, immediately after the vivisection, there was a slight fall of body-heat at first. A dog at 98.75 deg. was put into the box immediately after his cord had been crushed; his temperature fell to 96.25 deg. in an hour and a half, and then began to rise, reaching 105.5 deg. at the time of death, six hours and a half after the operation. With regard to this slight fall in temperature, we

must not forget that the box was not heated above 86 deg., that is, twelve degrees below the heat of the body. These experiments seem to explain the cause of the incongruity between the experience of Tscheschichin's and that of the clinical observers whom I mentioned. It is very probable that nerve-fibres run down the cord which convey an influence controlling the combustion-processes of the body; when these fibres are destroyed, there is an excessive production of heat in the parts concerned. For the production of heat is really increased, and not, as Tscheschichin supposed, diminished. And the higher the injury to the cord, the greater the tract of body set free from control, and the greater the production of heat. More concerning these fibres is not known; whether they be identical with the so-called trophic nerves, or with the vaso-motor nerves, all is uncertain.

Let us now pass to another topic. When we discussed the subject of the natural temperature of the body, we also inquired into the influence which external circumstances exert upon that temperature, and especially the influence of external heat and cold. Supposing the temperature of the body to be raised above the standard of health; supposing, that is, a state of pyrexia; what is the influence of external heat and cold upon the temperature? is the effect similar to that produced in health, or diverse from it?

We will first put the case of a high external temperature. The data upon this part of the subject are not numerous. Wunderlich noticed that, during the hot summer of 1865, the temperature of his fever-patients was much higher than usual. In four weeks of July, twenty-five of his patients died, and fourteen of these died at a body heat of 104 deg. or higher; eight, or one-third, dying at 107.5 or higher. The danger which ensues to febrile patients from external heat is hereby well illustrated.

Upon the subject of external cold applied to fever-patients, there is much more to say. Any concession made to the doctrine that much of the danger in a given case of fever is due to the pyrexia, involves the obvious therapeutical indication, to lessen the heat of the body. How is this to be done? By cold applied externally so as to abstract heat directly? But what we have seen concerning the action of external cold upon the healthy body, certainly does not look promising for such a method of treating pyrexia. I refer to the elevation of the internal temperature which is consequent upon moderate cold applied to the surface. It becomes then very important to ascertain by direct experiment whether in pyrexia there is a similar reaction against abstraction of heat; whether a moderately increased loss of heat from the skin induces, not a depression, but an elevation of the temperature of the internal parts. Experiment proves that there is such a reaction and elevation of temperature in pyretic patients. Again, we saw that this elevation of temperature in healthy persons was due to an increased production of heat; and the observations of Liebermeister seem to prove that the same holds good of fever-patients. So far, then, even experiment is against the use of external cold as a means of diminishing pyrexia. And yet, on the other hand, we have the testimony of three-quarters of a century to the good effects of cold applied externally in fevers. The practice of Wright and Currie has been confirmed and extended in our own day by the experiments of Brand, Liebermeister, and many others. How is this beneficial effect of cold in fever to be explained? Or rather, in what manner can the augmented generation of heat in pyrexia be diminished by cold baths? Two explanations offer themselves—probably both are valid at the same time. First, the fall of temperature which follows after moderate abstraction of heat in a healthy person occurs in fever-patients also. The temperature rises at first during the bath, but a lowering of the body-heat soon follows, and the depression of temperature lasts longer than the elevation; yet, in severe pyrexia, the depression soon passes off, so that the baths must be frequently repeated in order to produce a decided cooling effect. Secondly, the temperature rises during the bath for a time certainly, but fever-patients lose more heat during this period than healthy persons do. Moreover, the power to counteract cooling by spontaneous augmentation of heat generated—a power which is limited in health—in fever is still more limited; that is to say, under great abstraction of heat, less heat is produced in fever than in health. Hence, not only is the frigorific action of the bath greater, but its calorific action is less in fever-patients than in healthy people; more heat can be abstracted from the pyretic, and their power of maintaining a standard temperature is more easily overcome.

Schröder has made some observations upon the quantity of carbonic acid expired by fever-patients when treated by the cold bath, which confirm the conclusions at which we have just arrived. His experiments go to prove that the formation of carbonic acid—in other words, the consumption of the body, is really diminished by cold baths when employed in typhus fever. Immediately after the bath, the quantity of carbonic acid is found to be greater than before the bath; the muscular

exertion of getting out of the water, and the quickened respiration, possibly, have something to do with this. But, in from twenty to fifty minutes after the bath, the quantity of carbonic acid expired is much diminished, the temperature of the body being lowered at the same time. Schröder also found that less urea was excreted by typhus patients on the days when cold baths were given than on the days when they were not given.

To sum up, the cold water treatment does not shorten the duration of a specific fever, but only lessens the severity of its most important symptom, the pyrexia; and, at the same time, the disposition to lethargy, frenzy, putridity and debility, is lessened, whereby support is given to the doctrine that these typhoid symptoms are, partly, at least, due to the height and length of the pyrexia, and not altogether to the specific character of the fever.

Before we quit the subject of pyrexia, allow me to recapitulate a few results which we have obtained concerning it. The healthy body possesses a power of keeping up a mean temperature of about 99 deg.; to this end, the amount of heat generated, and the amount dispersed, are both under control. In pyrexia, this regulating function is disturbed in two ways: first, the standard of mean temperature which the body strives to maintain is pitched higher; next, the powers by which the body keeps up this standard are weakened. At the onset of pyrexia, in the cold stage, when the standard of mean temperature rises rapidly, the vessels of the skin contract, so as to prevent any loss of heat equivalent to the augmented production; in the healthy state, the cutaneous vessels would, of course, relax under such circumstances. When the actual temperature has reached the ideal febrile standard set up, the generation and the loss of heat become adjusted so as to maintain this morbid temperature; this is the hot stage. Lastly, as soon as the standard falls, a sweat breaks out, whereby to bring the febrile body-heat down to the normal as quickly as possible.

Now we have reached the utmost limits of our knowledge; before us lies a wide wilderness of the unknown. Yet men have not ceased to be busy with this outlying region. Ignorance and incuriosity do, indeed, make up a soft, easy, and wholesome pillow for a well-contrived head to rest upon; but it is not in man to be content with that philosophical repose. All pretences to pry further into the nature of fever have either been mere dreams of a shadow of smoke, or have fallen far short of the mark. In this way, fever may be well explained to be an increase of the calidum innatum; to be an effort of nature, or of the archæus, or of the soul; to cast out something hurtful from the body; or to be the result of irritation. But the theories of fever, which are not open to the charge of explaining the little known by the less known, do yet, for the most part, err by narrowing the meaning of the word fever down to the measure of our knowledge. The theories of fever put forth are either comprehensive enough and altogether groundless, or are founded on fact but altogether unable to explain more than a part of the subject. Among the latter class of theories, I may mention the Boerhaavian theory that fever is due to increased action of the heart and increased resistance of the vessels; Liebig's theory of an increased combustion of the structures of the body setting free more force than the natural functions require; Marey's theory of equalisation of the external and internal temperatures; C. O. Weber's theory of a poisoning of the blood by the products of the destruction of the tissues, calling forth an increased metamorphosis of tissue. All these theories include a portion, but a portion only, of the truth. They all mark a discovery in physiology. Theories which are less exclusive become, at the same time, more vague. Such are Virchow's declaration that fever is not mere elevation of temperature, but elevation of temperature due to a peculiar cause, which, to all appearances, can exist nowhere else than in the nervous system; and, next, Tscheschichin's theory that fever is a morbid augmentation of the activity of the spinal centres, in consequence of an affection (weakening, paralysis) of the moderating parts of the brain, whereby a series of chemical processes rise to a height such as is never reached in natural brain-function.

But although we may admit the truth of Mayer's words, that, the human body even in the state of health being to us the riddle of the sphinx, when we pass on to consider morbid processes, we light upon a sea of question and wonder; yet I think that we can forbode something of what we want for a true theory of fever. We want to know what are the antecedents of that disturbance in the heat-regulating function of the body which commonly manifests itself as pyrexia. We want to know what are the other consequences of those antecedents; what, in fact, are the concomitants of pyrexia. And we want to know what are the necessary consequences of pyrexia and of its concomitants. When knowledge is obtained on this behalf, we shall be able to define exactly and comprehensively what we mean by fever, and not until then. For, although pyrexia is the most obvious, most important, and most constant symptom of fever, yet I think we should not deem the words

pyrexia and fever to be convertible terms. Pyrexia is simply a word to signify an elevation of the body-heat above the natural standard; but surely fever has a much fuller meaning than this. Fever-heat, as Virchow says, is not mere elevation of temperature, but elevation of temperature of peculiar origin. By external heat, by exercise, a healthy body may be raised to a heat much above the standard of health, but as soon as these non-naturals cease to operate, the body is able to reduce its temperature to the normal. This is just what the febrile body does not do; the standard is pitched higher than in health; and we no more know why a febrile person maintains his pyretic temperature than why a healthy person maintains his 99 deg.

More than this: elevation of temperature does not even constitute a constant sign of fever; that is to say, a fever-patient may be not pyretic. The cause of this sometimes seems to lie in the fact that febrile persons are more strongly influenced by circumstances than healthy persons are. We have already seen that this is true with respect to external cold. Let us consider the effect of muscular exertion.

"With the same amount of chemical combination, the more work there is produced, so much the less heat is directly generated; just as, reversely, the formation of heat is at the expense of work." (Mayer.) In fever, the muscular debility is great, and the amount of work produced proportionately small; in fact, the degree of diminution in the mechanical power of the body is commonly taken as a measure of the severity of the illness: nearly all the force set free by the febrile patient manifests itself as heat. But sometimes fever-patients are compelled to put forth much muscular effort in spite of themselves and their feelings. This is, perhaps, most often seen in the case of the poor admitted into hospitals after a long journey. And what do we often find to be the condition of fever-patients under these circumstances? Their temperature is not raised above the natural standard, and may be even depressed below it; so that several hours' rest in bed is required before the pyrexia is restored. Yet we cannot refuse to the exhausted patient the name of a fever-patient, because it happens that just at one time his temperature is not elevated. And here I may allude to the facility with which many fever-patients sweat under small exertion—a sure sign of debility; "faint and unnerved, they run into a sweat."

But muscular exertion and external cold will not always explain a depressed temperature (algidity) in patients suffering from a disease which is usually attended by pyrexia. Tubercular meningitis is a disease in point. The temperature is sometimes extremely high, especially towards the end of life, but occasionally falls very low, lower than in the algide stage of cholera. I speak of the temperature high up in the rectum. Yet we do not hesitate to class tubercular meningitis amongst febrile diseases, in spite of its being occasionally attended by prolonged algidity such as I have described. And the regulating function being at fault in pyrexia, perhaps if we knew in what manner, and by what means, this function is disturbed, we might be able to explain why fever should sometimes be accompanied, not by an elevated, but by a depressed temperature.

TRACHEOTOMY IN INFANTS.

I SEE from a short note by my friend and former teacher, Dr. Joseph Bell, in last week's JOURNAL, that he is by no means disposed to allow of the existence of any hard and fast line for the age at which tracheotomy ought to be performed. I can very well remember the case to which he refers, and I can also remember some others where successful issues were obtained for the operation in very young infants. I know that my late lamented friend, Dr. Frederick Steele, had some successful cases in very young infants, and I think Mr. Annandale had one or two also. Some years ago, in Edinburgh, where the operation of tracheotomy for croup seems to me more common than elsewhere in this country, the young surgeons seemed to vie with each other in its performance; and it was something to have had the "youngest case" of recovery. I did the operation thrice in patients under twelve months old, and in an infant aged seven months it was successful. In another, aged nine months, I believe that the mother, unmarried, deliberately destroyed the child by obstructing the tube three weeks after the operation.

My own impression is that we ought to give patients the chance of recovery that tracheotomy affords, even at these early ages. The chief objection to the operation is the extreme difficulty of its performance. I know no operation in surgery more difficult than tracheotomy in an infant that has previously undergone the usual routine of treatment for croup, complicated as it is by the smallness of the trachea, the difficulty of feeling it, and the œdema induced by the usual blistering and poulticing. The facility of the operation and the chance of success increase rapidly in proportion to the age of the patient.

Waterloo Street, Birmingham.

LAWSON TAIT.

CLINICAL LECTURE ON LICHEN RUBER OF HEBRA.

Delivered at University College Hospital.

BY TILBURY FOX, M.D. LOND.,
Physician to the Skin-Department.

GENTLEMEN,—I am anxious to draw your attention to-day to a rare but very interesting disease of the skin, as illustrated by a case which we have recently had in the wards upstairs, and have watched with unusual interest. I refer to the lichen ruber of Hebra. No case of this disease has been recorded as having occurred in English practice, so far as I know, except by the late Dr. Hillier; and his case is clearly one of pityriasis pilaris of Devergie. I suspect, however, that lichen ruber does occasionally occur amongst us, and that its true nature escapes recognition. I have, however, only seen two instances of it myself.*

Let me first give very briefly the main features of the affection, as described by Hebra; then the history of our own case; subsequently point out in what particulars the latter agrees with or differs from Hebra's account of the disease; and conclude by some general remarks as to the origin and cause of lichen ruber.

Lichen ruber, according to Hebra, is characterised by an eruption of miliary papules, which remain as such—*i. e.*, do not change to vesicles or pustules—during the existence of the disease. The papules are at first distinct one from the other, and only coalesce so as to form patches by the development of new between the old papules; in other words, the papules do not undergo peripheral growth in the formation of patches. The papules are covered by small, thin, not very adherent scales; they are red (hence the term ruber), are the seat of but little itching, and are unattended by scratching. When a large extent of surface is attacked, the integument, in an advanced stage of the disease, "is universally reddened, covered by numerous thin scales, and so infiltrated that, when a fold of skin is taken up, it is found to have more than twice its normal thickness." The movements of the part then become affected, and the hands are stiffened; flexion and extension of the fingers and toes are difficult; the skin of the palms of the hands and soles of the feet is hardened; and rhagades appear. The nails become thickened, opaque, rough and brittle, or thinned and platy. The hair of the head and axillæ is unaffected. In the later stages, troublesome itching occurs, but not so great as to induce scratching and resulting excoriations. Marasmus and death often finally set in. The morbid anatomy of the disease comprises generally the coincident conditions of anæmia, in internal organs. The skin, after death, is pale, loose, devoid of fat and thinned, and but slightly scaly. On section, there are found to be enlargement of the papillæ and hypertrophy of the cutis, with thickening of the root-sheath of the hair, which is "pointed below, expanding towards the mouth of the sac, and looking as if it were made up of several hollow cones loosely included in one another, and having the hair in the middle." Neumann has found a number of nucleated cells about the root-sheath. Lichen ruber is said to occur in males chiefly, and at any age, apparently, up to forty or so. Hebra says it is only cured by arsenic. Such is, in very short compass, Hebra's description of the disease; it will be useful to you by way of preface. Now we turn to our own case.

History prior to Admission.—S. J., a woman forty-six years of age, had lived in London twenty years, and worked very hard at dress-making since she was eleven and a half years old, and until eight years before admission, when she became a lady's maid. At this time, her health began seriously to fail; and she suffered from an extensive and severe attack of boils, and severe onychia, off and on, during an entire year. This prostrated her, and she never recovered her strength. Five years and a half ago, the present attack of lichen ruber began with intense itching in both eyes, which "got red and burned". During the next eighteen months there was little change; but at the end of that time the face generally began to redden considerably; it looked flushed at all times, and felt hotter than natural. The woman now complained of excessive debility, which, indeed, obliged her to

give up her situation. Nine months subsequently—that is, about three years and a quarter ago—the redness had spread to the neck, and had appeared about the back; the exposure of the face to the air or the fire causing it "to burn" excessively. The head itself had become irritable and red, and the reddened parts themselves somewhat scaly. The arms were also attacked, as well as the lower part of the back. In August 1868, having caught cold, the woman was attacked by the disease generally, which spread rapidly, and involved the legs. The patient stated that deep red stains constituted the first stage of the disease. She was told that the disease was erysipelas, but she "knew it was different". The redness was removable by pressure, and was accompanied by burning and itching, especially towards evening and morning. The first place where any "pimples" appeared was at the back of the neck, but subsequent in point of time to the redness itself. When the arms, however, became affected, "a dozen or two of tiny pimples" first showed themselves; and these gradually increased in number. The patient had suffered from "neuralgia" in the shoulders and arms during the last year or two; from indigestion, pyrosis, and menorrhagia; whilst she had lost flesh to a marked extent. She had never had any "fever" about her; had taken "quantities of arsenic under several doctors", and had always been the worse for it. Such is the early account of her case, as given by the woman herself.

Condition on Admission.—November 10th, 1869. The patient looked careworn and anxious, and she was thin. The pulse was 68, regular, and tolerably full. She complained of occasional pain on the top of the shoulder, and of sleeping badly. She was the subject of marked pyrosis; the bowels were quite regular; the urine free, but high coloured; and the tongue clean. At various times during the day, the skin was the seat of considerable itching wherever the eruption was present; and this irritation was paroxysmal, lasting half an hour or more. At other times, a burning sensation was felt in the back and shoulders; and in the arms the sensation was "like hot fire". This burning came and went capriciously, and lasted about an hour at a time. She had itched a good deal. The disordered sensation in the face was not so annoying or so severe. The skin had no appearance of having been violently scratched. The patient rather rubbed the skin. She declared herself to be "very nervous". The face looked, though the weather was cold, as if the patient were over-heated; the colour was deep red. The skin appeared pretty dry; it was slightly wrinkled; and, though it was in itself indurated, yet there was an absence of subcutaneous fat, which made the surface look thinned. The state of the skin might be said to resemble reddened xeroderma. The whole of the scalp was reddened, and was covered by minute scales; but the hair was not altered, save that it was a little drier than natural. At the back of the head, and extending from the poll to the level of the middle of the scapula, the skin appeared as though it were discoloured red by a minute subcutaneous mottling; the redness being most marked at the centre, near the spine; whilst right and left, on closer examination, this mottled aspect was seen to be made up of small reddish-brown flattish papules, of the size of pins' heads, seated at the follicles—elevated, however, but slightly, and covered by exceedingly minute white scales. On looking sideways, the skin had a very shining appearance. In the centre of the back, and laterally, the disease existed over an area of about six inches from above downwards, and extending from side to side into the lateral regions; and consisted of a dull red congestion, with papulation, the glistening aspect being well marked at the lower part of the patch. The front of the whole of the chest and the abdomen was marked by this dull red mottling and minute scaliness, the papulation being most distinct around the nipples and at the midsternum. The disease was absent from the lower part of the abdomen, and the skin just around the umbilicus was free for about one inch. The reddened patches all felt hotter than normal. On examining the posterior part of the body below the level of the crests of the ilia, a different appearance was perceived, inasmuch as the papular aspect was very well marked indeed. There was the same dull red aspect as before; but the surface was covered by fine white glistening scales, seated upon flattened papulæ. But, in addition, there seemed to be a minute and close pitting, like the camel's stomach, on a very small scale; and these little depressions, which were bounded by the natural furrows of the skin, were seated at the follicles, and were covered by thin white scales; and they seemed to be consequent upon the removal by absorption of the papulæ. This mixed appearance of red papulation and depression extended down to the knee, especially on the outer side, less on the inside of the limb; and, at the mid-thigh, the scaliness and coalescence of the papules, forming thickened patches, were very well marked. The thigh had been affected about a year. Below the knee in front, the leg presented the aspect of a nutmeg-grater with very fine points, as much as anything else. It felt harsh, and the elevations were covered by adherent small white scales. Over

*I refer to lichen ruber possessing the features in such development, both as regards the eruption itself and the general constitutional symptoms depicted by Hebra. I am by no means sure that the lichen planus of Erasmus Wilson, whose description of it is admirable, will not have to be classed under the same head as lichen ruber, but as a less expressed form of that affection. But I leave out of view for the moment this lichen planus, and will deal with that specially in a separate lecture.

the ankle, the scales were confluent; and there was also here redness, with scaliness and minute pitting. The small hairs over the body were ill formed, and many were broken off. The right limb was affected just as was the left. The general appearance on the outside of the arms was the same as that of the upper part of the thigh, except that at the upper part there was a little more close package of scales, depressions, and papules. The disease at the lower part of the anterior surface of the forearm consisted of isolated palish or only slight red papules, and was not unlike syphilitic lichen. The papules were hard, distinctly elevated, but not scaly. The nails were thin, fibrous-looking, and at their roots appeared red, dry, and scaly. The soles of the feet and palms of the hands were free from disease; but the extensor surfaces of the finger-joints were red, indurated, scaly, and showed a disposition to crack; but we observed none of the excessive changes noticed about the hands and feet by Hebra.

Now let me briefly sketch the progress of the case whilst in the hospital. The woman could scarcely get any sleep on account of the irritation, which became intensified towards evening; but, by the use of remedies, she improved; and in six weeks she was altogether better, both as regards the digestive organs and the skin. The redness had faded, and no fresh papules had appeared. Still, however, the burning continued. Once an intensification of the redness was observed for several days; but still the thickening and papulation disappeared very considerably, and she left the hospital with only a moderate amount of redness, removable by pressure, about the back, the upper part of the chest, and the upper part of the thighs and arms. She had gained flesh, and was apparently getting well. This was in January. On May 14th, she had a relapse, having been hard at work, and became nervous and depressed; and we then had an opportunity of seeing how the papules were developed. In examining different parts of the body, the redness presented a punctated appearance; and the red points, which subsequently gave place to solid papules covered by minute scabs, were seen to be seated at the hair-follicles. This is now specially well seen about the mammary region; for the red points run in lines from the midsternum above downwards and outwards, and chart out the little areas formed by the natural furrows of the skin. On the thighs and arms, distinct red papulation, taking the place of the red points, is clearly seen; and, in the most advanced seats of disease, patches are performed, as about the arms, made up of crowded red papules covered by scales. About the thigh there are rather minute depressions, covered by thin scales, left by the absorption of the papules, it seems to me; hence the minute pitting, in fact, of which I spoke a moment ago. The skin looks as though the little areas enclosed by the natural furrows had been distended, and had not subsequently recovered from the stretching, for they are larger than natural: further, as if effusion had not only taken place into the walls of the hair-follicles, but had spread into the interfollicular spaces, and then been absorbed. The appearance now referred to is well seen in the parts where patches of disease have been formed by coalescence of papules. Even where the papules have been quite distinct, their disappearance is followed by some slight pitting in many cases, covered by thin scales. Let me only add that an appearance of pitting in the interfollicular spaces is often induced likewise by the elevation produced by the formation of papules. The woman is, I am happy to say, improving again rapidly.

General Remarks on the Case.—The disease in our patient, a woman above forty-five, is clearly lichen ruber. Hebra's cases, as far as he has given us particulars, occurred in men below forty, with one exception. The disease commenced in the face in our case, and took the form, at the outset, rather of an erythema than of a papulation. You will recollect that the papules appeared first of all at the back of the neck, and some time after the erythema had existed about the face and head. This redness was a more prominent feature than in the instances recorded by Hebra. From his description, one concludes that the redness follows upon, or is coincident with, the development of patches of disease by the coalescence of papules; whereas it was in our patient the first stage, inducing an uniform redness in such vascular parts as the face, and a punctated redness about the body; the red points being seated mainly at the hair-follicles, but also at the papillæ (?) in some cases. Now this redness does by no means imply the existence of inflammation. The skin felt dry and hot; but it seemed to me, looking to the quiet character of the pulse, and the absence of all pyrexia, to be simply an active dilatation of the minute blood-vessels; and this was followed by effusion of plastic matter into and about the follicles, hypertrophic growth of the root-sheath, and in some cases of the papillary layer of the skin: hence the formation of papules, the next stage being thickening of the skin and stretching, especially of the interfollicular spaces, with subsequent absorption, giving rise to the minute pitting before observed, and seated at the follicles and interfollicular spaces; the whole

surface being covered by a minute pityriasis, and patches being formed by the aggregation of the papules, which were always of a red colour. All this was seen more clearly as the patient improved in the hospital. The disease was, in short, active congestion of the hair-follicles, with the result of its persistence and active growth of the root-sheath; not mere congestion and its results, as in pityriasis rubra, but also an active change in the root-sheath, excited by the congestion. But then comes the question, upon what did this active congestion depend? Before the disease came on, the woman had been evidently sadly out of health, as her attack of boils, lasting a year, showed. She had lost flesh to an excessive degree, and she suffered from nervous debility. The idea derived from a careful examination of the case was just this, and nothing else: that the control exerted by the sympathetic nerves over the blood-vessels was lost; and hence the occurrence of dilatation and its results, for that is all we have in lichen ruber, and the itching and burning are accounted for by the congestion of the papillary layer. But then have we any indication of such a causation of the congestion? any facts? as the Germans would say. I think we have. You will remember that one of the first items in the original outbreak of the disease was suffusion of the conjunctivæ, followed by redness of the face or engorgement of the capillaries; and pyrosis has always been a most persistent and prominent feature of her case, though there has been a clean tongue. Recollect also the constant menorrhagia from which the woman suffered—all pointing to, and most easily accounted for by, the occurrence of congestion of the mucous surfaces of the conjunctiva, the stomach, and the uterus. Besides, the woman constantly complained, and complains still, of distressing palpitation of the heart; and there were symptoms of spinal irritation, which may be explained by an alteration in the normal influence of the inhibitory nerves; and it occurs to me to ask whether the sleeplessness may not in part be explained in like manner by the congestion induced through the sympathetic. Certainly, the general condition of the patient pointed to a condition of some of the internal surfaces and organs analogous to the congestive state of the skin. This view of the case appears the more probable from the negative signs of other disease in the woman, and her peculiar and rapid loss of flesh. The skin-affection is only a part of a general congestive condition, dependent upon perversion of the regulative influence of the sympathetic nervous system.

Now, with regard to the diagnosis, what shall we say? If you once see the disease—and we will strip the patient to-day—you cannot fail to recognise it in future, and to distinguish it from psoriasis and pityriasis rubra, with which it might be supposed to be confounded. The occurrence of red congestive points, which subsequently develop into red papules, preserving their characters as such, at first isolated, then becoming crowded together, not by peripheral growth, but by development of new papules, into a patch, covered by very fine scales, and attended by burning and itching; the absence of discharge, of excoriations, and the presence always of isolated papules, and the general dull red mottling, at once settle the difference. There are never such large scales as in psoriasis, which increases by the centrifugal or peripheral extension of minute spots, and is not a follicular affair, but a heaping up of epidermic scales, with stasis in the papillary layer of the skin. In pityriasis rubra, no papules are seen. As the rule, if pityriasis pilaris occur, it is mere plugging of the follicles by epithelium. There is no infiltration about the follicles, and there is very free desquamation over the surface.

The prognosis was regarded by Hebra as unfavourable, especially when the disease is well marked and marasmus is present; but Hebra has recently had better success with his cases, and the last seven have terminated favourably.

Treatment.—The woman, S. J., before you is now well, save in so far as she is in an hysterical condition, which rest and change of air will probably remove. Now, how did she get well? Hebra states that the only remedy of any use is arsenic, which he thinks a certain specific, though, as in the present case, some patients do not bear it well. We had to deal with (1) an irritable and congested state of skin; (2) congestive conditions of internal organs, digestive troubles which prevented the proper assimilation of food; and (3) a very debilitated constitution. Local measures were had recourse to, to meet the first condition. I acted upon the principle which I am always commending to your notice—to soothe whenever and wherever there is a red but irritable skin. The patient was ordered alkaline and bran baths every night, with an oxide of zinc and chalk lotion to be applied many times a day. This gave great relief. The first step, as regards internal treatment, consisted in dealing specially with the pyrosis. I gave bismuth and pepsine in large doses, varying the adjuvants, soda and bitters, with prussic acid, from time to time. After a while, with the aid of henbane, and opiates and hydrate of chloral at night, but especially the latter, the patient obtained a fair amount of relief and sleep;

and then it was that, the pyrosis subsiding, I pushed arsenic, in the form of Asiatic pill, and also cod-liver oil, with quinine and good diet; and with marked good effect. She began with one-twentieth of a grain of arsenious acid thrice a day on November 10th, and went on with it till December 9th, when there was an exacerbation of the heat and redness, though the papulation and scaliness had considerably lessened. I omitted the arsenic now for a while, and soon resumed it, the oil being taken all the time. In another fortnight, she left the hospital almost well. When the relapse took place in May, I again tried arsenic; but she has been unable to again bear it, since its employment is always followed by an intensification of redness and burning. I trusted chiefly to quinine, cod-liver oil, and bismuth, till lately, when I have given assafoetida freely; and the patient is rapidly recovering—whether as the effect of the assafoetida, I know not. Locally, I have used soothing remedies—calamine and glycerine lotion. There can be no question that, when the dyspepsia and pyrosis were at their worst, the skin was most disordered; and the cause of these disorders was probably a common one, as I have explained. In the management of these cases, I advise you to look closely to the stomach and its behaviour in the first instance, and to give cod-liver oil and arsenic, if they can be borne, freely.

[I saw the woman three weeks after the delivery of this lecture, and found her well, excepting a few scaly patches here and there.]

RECOLLECTIONS OF THE MEDICAL SCHOOL OF VIENNA.

By J. F. PAYNE, M.B. Oxon; late Radcliffe Travelling Fellow.

II.

THE other clinical professor of Vienna is in many respects a contrast to the great Skoda. The abilities and merits of Professor Oppolzer are so much more obvious and striking than those of his colleague, that many persons make it a point of honour to suppose that they must be less solid. To contrast two eminent men is always invidious, and the judgment would be of little consequence, but that the mere humour of comparison may lead to unfair depreciation. There are, however, many students beside those of his own country to whom Oppolzer is the one clinical teacher of the continent, who has most completely decentralised the well earned prestige of the Paris school. Not only does he seem to be at the present day without a superior, if not without a rival, in the French capital, but, so far as literature enables us to judge, to well bear comparison with the most brilliant ornaments of the older Paris school. The most striking characteristic of Professor Oppolzer is, that he is widely accomplished without being in any way superficial. It is not easy to pick out his strong or his weak point. He has practically no speciality, though it is the custom to say in Vienna that all above the waist belongs to Skoda, all below to Oppolzer. He does not cultivate diagnosis to the neglect of treatment, nor give more than its due weight to science or to practice. His wide acquaintance with the recorded experience of others, does not render him less apt in making use of his own; he never suffers book-knowledge to dull the edge of his fine clinical tact. This may seem very indiscriminating eulogy, and such even excellence is liable to compose a somewhat commonplace character, without some conspicuous feature or active outline to make it interesting. There is, however, one dominant feature which gives unity to the many accomplishments of Professor Oppolzer, and that is his marvellous tact in teaching. Although he is endowed by nature with remarkable quickness of perception, the habit of teaching, which has become a second nature, makes him moderate, so to speak, the rapidity of the mental process, that the steps may be obvious to those whom he has to instruct. One day you will admire a brilliant diagnosis, which looks almost like divination; another time you will wonder, if you are not in the secret, why every step should be taken so deliberately, every contingency considered, every objection weighed, before the conclusion, which seemed obvious all along, is reached. Perhaps the hasty English mind, apt to jump at the conclusion first and prove it afterwards, will hardly appreciate the patient *finesse* which comes of a German education and German habits of mind. Be this as it may, the advantage of such a system in instruction is obvious. The method, not the conclusion, is that which is most valuable. It is much better for the pupil that his teacher should arrive at a wrong result by a right method, than that he should follow a bad method and yet by some chance be right. Best of all is it that the result should be both right and legitimately obtained; nor is this an unfrequent achievement of Professor Oppolzer's diagnosis, the high average accuracy of which may be judged of by the importance attached to an occasional error.

Such a case occurred during the writer's stay in Vienna, and may be worth relating. A patient who had been under observation for some time in the clinical wards died rather suddenly, and the autopsy was conducted in presence of the Professor and his whole class. The result was, that what was supposed to be disease of the liver, turned out to be disease of the pancreas; an error of a kind not unknown in any hospital, but which would not everywhere excite so much surprise. But the Viennese students believe in Oppolzer so much that they cannot understand his failing to diagnose anything, even disease of the pancreas. The autopsy created a positive sensation. All that day the question was asked everywhere—"Have you heard of Oppolzer's great mistake?" and the next morning there was an enormous audience at the clinical lecture to hear the Professor's explanation. The explanation was simply an admirable summary of all that was known on that obscure subject. It was pointed out within what limits it might have been possible to gain positive information, and the Professor took blame to himself for having neglected certain investigations which might possibly have thrown some light on the subject. If the students lost anything through the case not having been diagnosed, they were certainly well repaid with so admirable a lecture.

Professor Oppolzer's manner has no kind of assumption or display. His language is not that of the rhetoricians of the French school, though always fluent and appropriate; and he often makes a fine use of the vernacular idioms, which correspond in German to what we call in our own language good Saxon English. This racy and vigorous language gains in effect from his clear high-pitched voice and peculiar accent, for Professor Oppolzer, like Skoda and many ornaments of the Vienna school, is of Bohemian extraction; although, it is said, of a German family. Not the least among his many claims on the gratitude of his pupils, is his unwearied interest in teaching. The prescribed hours for clinical lectures are two hours a day for five days in the week; but the Professor is rarely absent on any day of the seven, and the prescribed two hours are almost always extended to three. In some medical schools, such devotion might be misinterpreted; it would stamp a man at once as having no practice; and we may then be permitted to say that, if common report is to be trusted, Oppolzer is very far indeed from having this excuse for his devotion to teaching. To teach medicine for twenty hours a week with unflagging energy and unexhausted resources, and at the same time to be on a level with the many novelties of an ever-changing science, this is in itself no slight intellectual effort; but when those hours are reserved for science and for the poor, which might be given to social advancement and to the service of the rich, there is something more than the intellectual effort which claims our admiration. Professor Oppolzer has given much more time to teaching than to writing; more, perhaps, than to research; and his published works represent him very imperfectly. We have, indeed, a considerable instalment of his lectures, edited by Stoffella, which are undoubtedly a very important contribution to medical literature; but they have been (unfortunately, as we think) reduced to text-book form, and are given in the language of the editor rather than the author; so that the charm of the oral delivery is lost. For the matter of the lectures, we cannot presume to judge or to praise it here.

The chief teachers of clinical medicine in Vienna having been spoken of, the surgical side now claims our attention. It has been generally admitted that this is the weak point of the Vienna school, as, indeed, it is of the German schools generally; nor could Vienna till lately boast of any surgeon of so great European reputation as Langenbeck of Berlin. The late Professor Schuh, who died a few years ago, was much regretted, and is still sometimes spoken of as "*unser unvergessbarer Schuh*" (our never-to-be-forgotten Schuh); but his merits were perhaps less widely known abroad than warmly appreciated at home. His place remained for some time unfilled, and the circumstances connected with the appointment of his successor may perhaps be instructive. There were, and are, in Vienna many surgeons of good repute, judged not only by a German, but by an European standard, whose names must be known to those who read German surgical literature, and especially the *System der Chirurgie*, now in course of publication. According to the system of appointment which prevails in many places, some one of these surgeons, occupying one of the subordinate or "extraordinary" chairs, would have been promoted to the higher post of Professor Ordinarius; as has been said, there was no lack of competent and even eminent men. Nevertheless, this did not appear enough to those who had to make the appointment. They were anxious to get, not only a competent and eminent Professor, but the most competent and eminent attainable; and acting on some such principle as this, the heads of the medical faculty selected, in preference to one of their own men, a professor of rare distinction from the University of Zürich. Dr. Billroth, now professor of clinical surgery in Vienna, was a pupil of Langenbeck, but has, by his numerous and classical researches in histology and

pathology, quite established his own position.* All accounts from Vienna speak of the success which has already attended his teaching. No more crucial instance could be given of the method of appointing professors which prevails in Germany. Should it have the effect, as seems probable, of reviving the school of surgery in Vienna, no better proof could be given of its soundness.

Beside the clinical professors, there are, of course, many who never concern themselves with practice; and it is hardly necessary to point out how closely connected is this fact with the rapid advances made in Germany of late years in the sciences ancillary to medicine. Not only anatomy and physiology, but those which lie nearer to the practical side, such as morbid anatomy, are considered sufficient for the occupation of a life-time; and neither the Professor of Pathological Anatomy, nor his assistants, have any hospital work or other professional occupation.

The name of the illustrious Professor of Pathological Anatomy at Vienna is so well known as hardly to need mention; it belongs, indeed, to the history as well as to the present glories of the science. The immense achievements of Professor Rokitansky in this field are, however, not quite appreciated in this country. The English translation of his great work, by which he is chiefly known, is in many respects unfortunate. In the first place, it was made from a work which its author has since entirely remodelled; and in the second place, it was so long delayed as to be out of date, even at the time when it first appeared; since which it has, of course, dropped further and further behind. At the present day, it represents the position of its author as little as it represents the actual state of the science. Such is, indeed, the common fate of scientific text-books, but doubly unfortunate is the lot of those which are translated. The last edition of Rokitansky's work, published with the title of *Lehrbuch*, is a work not to be praised without presumption; and, however much the phraseology and theories may occasionally differ from those which are now coming into use, the value of the immense mass of observed facts is undiminished. A still higher value attaches to his numerous special memoirs. But books give, at the best, a very imperfect notion of the influence which this remarkable intellect has exerted on the progress of science. There are probably few German pathologists who have not been at some time pupils at Vienna. Förster speaks of the crowds of students and physicians who made a pilgrimage to Vienna to study what was regarded as the new science of pathological anatomy at the fountain-head. The great Virchow, whose system has supplanted that of his teacher, represents the first generation, and his pupils, who have furnished the most important researches of late years, represent the second generation of pathologists, from the great patriarch of Vienna.

In the medical and scientific circles of Vienna, Professor Rokitansky occupies a most important position, and has immense influence both in the governing body of the University, and in the Imperial Academy of Sciences. On various public occasions he has delivered important addresses, conceived in the metaphysical spirit which was so apparent in the earlier editions of his *Pathological Anatomy*; they are pronounced by competent judges to display very deep thinking, and they are certainly very hard reading. In estimating the present teaching power of the University, we cannot, however, give a large place to Professor Rokitansky. His lectures are not attractive, and are meagrely attended; and though all students of a certain standing are compelled to enter their names and pay fees, they usually content themselves with these ceremonies. The impression seems to be, that all the Professor has to say can be read in his book—another instance of the misfortunes of authors.

The teaching of pathological anatomy in Vienna, let us hasten to say, does not flag for want of young and able teachers; nor are any resources wanting in the splendid institution devoted to it. The opportunities for observation cannot but be large when they are supplied by the deaths among two thousand patients. So great is the amount of *matériel* in a single morning, that it would be impossible even to glance at everything, and the assistants are accustomed to reserve the more interesting specimens for special demonstrations at a different hour. The institution itself is a large and stately building; for, though the University of Vienna is in general but poorly supplied with funds, when an institution is founded in the imperial city, it is always built in the grand imperial way. The ground floor contains several rooms for autopsies, among which is one very large theatre for the cases from the clinical wards, and another specially assigned to the cases involving medico-legal inquiries, sent in by the police or other authorities, which are made by Professor Rokitansky personally, in the capacity of Pathologist to the city of Vienna. It is a most admirable arrangement, en-

suring that important examinations are conducted by competent persons, and making the results available for science. It might with great advantage be applied to our system of coroner's inquests, which satisfies neither of these conditions. On the same floor is the "Todtenkammer", where the bodies of persons awaiting interment are watched day and night, to prevent premature burial. On the upper floor, beside several lecture-rooms and private rooms for professors and others, is the Museum; a most valuable collection, and containing some unique specimens, but of little value to the students, partly through the want of an accessible catalogue, and partly through being in itself virtually inaccessible. The institution contains, beside, an excellent laboratory and lecture room for pathological chemistry, where Professor Heller gives instruction in the applications of chemistry to medicine, and undertakes all necessary investigations for the physicians of the hospital. Another aspect of pathology than that of mere anatomy is represented by Professor Stricker, who has a laboratory specially devoted to the experimental study of disease and the observation of living tissues; and where normal histology is also taught by his assistant Dr. Klein.

CASE OF PROBABLE COEXISTENCE OF SCARLATINA AND VARIOLA.

By A. ERNEST SANSOM, M.D.Lond., M.R.C.P.,

Physician to the Royal Hospital for Diseases of the Chest, City Road, and the North-Eastern Hospital for Children.

A SISTER OF MERCY, aged 31, probably vaccinated in infancy, in active duty in a district in which both scarlatina and variola were rife, was revaccinated without success on February 13th, 1871. On February 16th and 17th occurred rigors and lumbar pain; on the 21st, sore-throat. She then came under my notice. There were much pyrexia and tonsillar ulceration, and the throat had a scarlatinal look. On the 22nd, I saw her in bed, covered with rash exactly resembling scarlatina, and with the precise throat-signs of the disease. On the 23rd, the rash was persistent, with purplish petechiæ scattered over the chest. She manifested great prostration. On the 24th, the rash was persisting; but papulæ of variola covered the face and thighs, the arms and hands; there were rather fewer on the chest. The tongue was loaded with thick fur. During the next four days there were urgent distress, insomnia, subdelirium, and sore-throat, but very little involvement of the external glands. The variolous spots became confluent on the face and thighs. On the 28th, there was defervescence; the pustules, previously full of matter, desiccated and fell off, leaving brown stains, but scarcely any pitting. The treatment consisted, for the first three days, of twenty grains of sulphocarbolate of sodium every four hours; subsequently, half a drachm of the sulphocarbolate with a grain of quinine every four hours. She was ordered beef-tea and milk, and six ounces of brandy daily. As soon as the pustules were fully formed, they were individually brushed over with liquid carbolic acid once each day for three days; a weaker solution (5 per cent.) being also applied night and morning. Recovery was most complete and satisfactory.

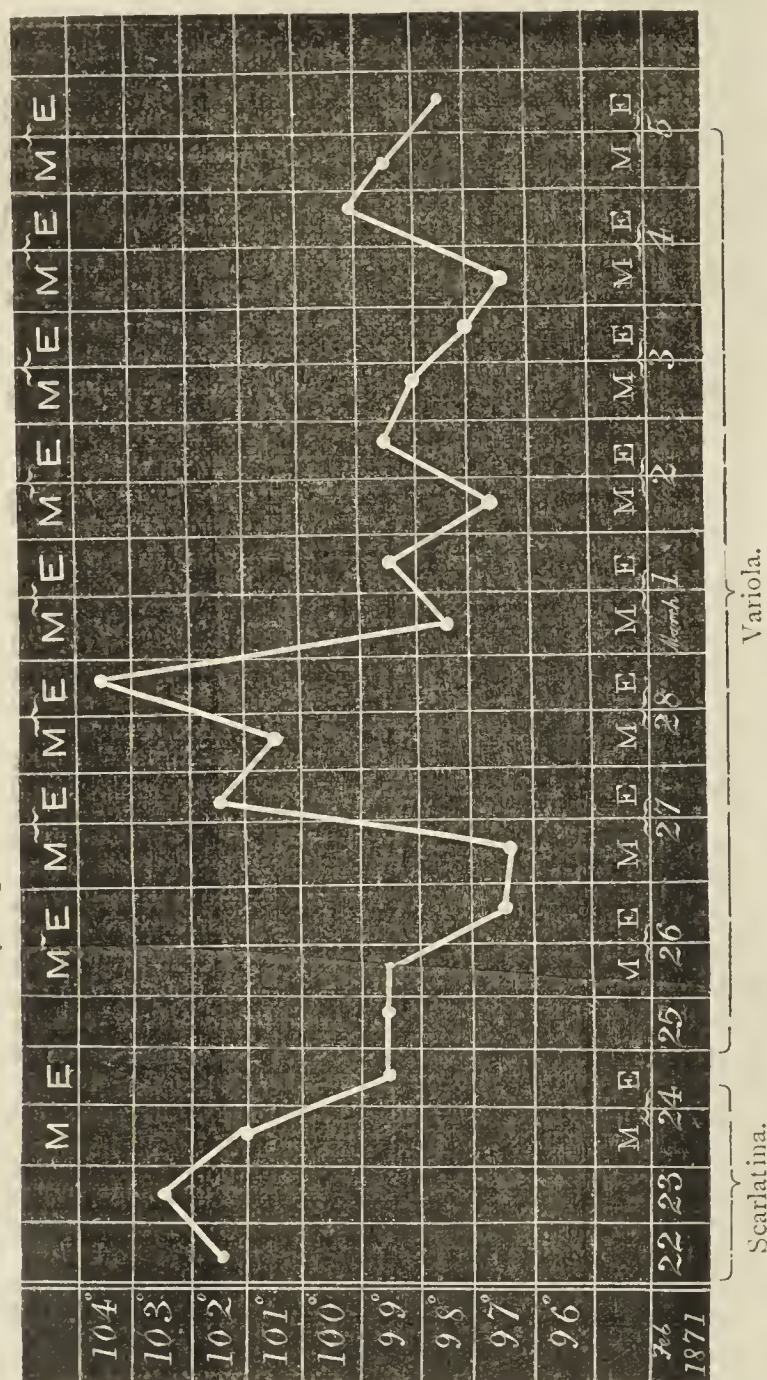
REMARKS.—I am disposed to think this a genuine instance of scarlatina and variola occurring together in the same patient at the same time. I had a case presenting a probability of the same conjunction in a member of the same sisterhood in 1868. In this there was a distinct history of the communication of scarlatina by wearing apparel; and at the same time the patient experienced a fright on seeing closely a boy just recovering from severe small-pox. Here there were all the usual signs of scarlatina, with abundant rash. On the second day of initial symptoms, there was lumbar pain; on the tenth, varioloid papules, few in number, which followed the course of modified variola. The scarlatinal symptoms were in this latter instance much the more formidable of the two affections. A third instance of a similar conjunction, occurring in the country, has been narrated to me.

I am, of course, well aware that occasionally variola is ushered in by a roseoloid rash. I have seen cases in which it appeared impossible to diagnose for certain. Thus, on December 16th, 1870, I was called in consultation to see a lady with profuse rash simulating scarlatina, but with abundant petechiæ over the body, and ecchymoses beneath both conjunctivæ. The patient was *in extremis*, and died a few hours afterwards. The case appeared like one of petechial scarlatina. Within two days, in the same neighbourhood, I saw a precisely similar case in a gentleman who also died *foudroyé*. This was regarded by the medical officer of health as malignant scarlatina. On December 18th, also near by, I saw a case manifesting a like rash, with the addition of variolous papules covering the body. I am disposed to think that all these were instances of variola.

* His admirable *Lectures on Surgery* will, we believe, before long be translated into English by Dr. Warren of Boston, U.S.A.

The two cases previously cited, however, present many points of difference from *variola roseolosa*. There are (1) a plausible history of the double contagion; (2) a definite history of scarlatina, with the usual throat-signs; (3) a varied relation of intensity in the correlated diseases in the two instances—in the one case the variola, in the other the scarlatina, being the more pronounced. Again, the thermometric signs in the first case (a chart of which is appended) were peculiar—very

Chart of Temperature.—Case of Scarlatina and Variola.



focation and cough in persons who happened to be to the leeward of the works. Added to these was a constant exhalation of a villanous form of sulphuretted hydrogen from a deposit of soda-waste adjoining the works. So great became the outcry about this offensive deposit that the proprietors promised that it should be covered over, and that in future the refuse should be carried outside the town, to a ballast-heap near the seashore. Here the deposit, being exposed on the side of the hill, became more offensive than ever, and the residents at Tynemouth complained that the stench, even at that distance, was sickening, when it was wafted across the harbour. These abominations having been endured during the summer and autumn, they became at last intolerable. The inspector under the Alkali Act was appealed to. He replied that his office was simply to see that not more than five per cent. of the muriatic acid gas evolved in the manufacture escaped, and this requirement of the Act was complied with when he visited the works. One can only conclude from this statement that, if no more gases than the Alkali Act permits were allowed to escape, then the Act in question does not protect the public from either injury or annoyance.

The Board of Health and Nuisance Authority contented themselves by sending out harmless letters and threats, and by referring the matter to a so-called Sanitary Committee. As private remonstrances are unpleasant, and too frequently beget private enmities, it was thought by a few that a public meeting might be useful in rousing the authorities to take more active measures for suppressing these nuisances. A meeting was convened by circular on the 10th November, 1868, and was well attended. It was resolved—"That the increasing production of smoke and chemical vapours, injurious to the health and property of the people of South Shields, is a nuisance calling for immediate abatement, and that a sanitary association be formed for the purpose of securing a purer atmosphere, and protecting the inhabitants against the aforesaid nuisances." A deputation was appointed to attend the next Town Council meeting, and four medical and other gentlemen attended on the occasion and urged the Council to put the provisions of the Sanitary Acts in force, drawing attention to the fact that, although a sanitary inspector had been appointed, who did some service in preventing ash-pits, pigsties, and lodging-houses, from becoming unwholesome, there were other nuisances in a higher stratum that demanded a remedy; and that, as the corporate funds were taxed for the purpose of sanitary inspection, that inspection should be made as directed by the Sanitary Act. The deputation was most courteously received by the Mayor, who promised that the matters brought before them should receive the earnest attention of the Council; and they were referred to the Sanitary Committee to report.

There was small prospect of any activity being shown in the work by this body—the official Board of Health and Sanitary Authority; for at that time the Mayor was an alkali-manufacturer, the ex-Mayor was an alkali-manufacturer, and the Chairman of the Sanitary Committee was another alkali-manufacturer. However, by dint of agitation, writing in the newspapers, etc., some little stir was made; threatening letters were again sent to the most offending alkali company; and in the course of months some reduction had taken place in the emission of acid fumes, and the abomination on the "Bents" had been covered with waste gravel. Again and again, however, the choke-gas made itself felt, and no steps whatever had been taken to abate the smoke nuisance. Seeing this stagnant condition of the Corporation, it was determined to send a memorial to the Home Secretary, calling his attention to this neglect of the Board of Health in enforcing the provisions of the Nuisance Removal Act and the provisions of the Local Government Act, especially in respect of the smoke and chemical vapour nuisances. This memorial was numerously signed, and transmitted to the Home Secretary in July of last year. It brought down a forcible letter from Mr. Tom Taylor, asking "that the Secretary of State may be informed what measures had been taken by the Council under the 49th section of the Sanitary Act, imposing on them a duty to deal with black smoke from furnaces as a nuisance included within the operation of the Nuisances Removal Act". To this inquiry the Sanitary Committee, in their reply, avowed in the first place, "that, as regards steam-boilers, there are means of preventing smoke, and that they intend now to enforce these means".

Be it observed, that these means had been known for years. Ten years before, this very Corporation had issued notices to enforce the consumption of smoke in such cases, with the result already detailed. In the second place, it recommended "that means of prevention be enforced whenever their efficiency has been practically ascertained"; and in the third place, "it had to consider how far the law can be enforced without unduly affecting the manufacturing prosperity of the town". Here a public authority constituted to give effect to the law manfully suggest excuses for evading it, by conjuring up the old bogie of manufacturing prosperity. Well, the result of this memorial has been this.

Formal notices were again served on the possessors of black chimneys in October last. A few have adopted some apparatus; others looked more strictly after their stokers for a time; and now, after another year has nearly past, we find no appreciable improvement, some portions of the town constantly enveloped in "clouds and darkness", and no effort made to diminish the nuisance.

Such is a meagre outline of the painful struggle in attempting to obtain pure and fresh air in a manufacturing town. We are not alone in having to endure this hope long deferred. A most influential meeting was held in the Guildhall in Newcastle about a year ago to discuss this important subject. At that meeting, some of the most practical and accomplished manufacturers in this district assured us that it was possible, without injury to manufacturing prosperity, greatly to lessen the present polluted condition of our atmosphere. A committee, containing the Mayor, Sir W. Armstrong, Alderman Bell, Captain Noble, Alderman Newall, the Sheriff, and others, was formed, "to consider and suggest measures for the prevention of these nuisances". High expectations were aroused: one doubting sufferer made a suggestion that the meeting should adjourn for two months, that there might be no evasion and a speedy report. The Mayor hoped the Committee would finish their labours and report long before that date. The unbelieving party, with something akin to prophetic foreboding, retorted: "In the meantime, I suppose, we must continue to live in hope and die in despair." It is now about a year since that very excellent meeting was held, but the report from which we had hoped so much still looms in the future. Whether the dolorous and doubting party has died in despair, or still lives in hope, I am unable to tell you.

One conclusion may, I think, be fairly drawn from this simple history. The sanitary laws against nuisances will mostly remain dead letters so long as they are intrusted to, and administered by, local authorities. Experience shows that a minority, however energetic, in a board of health, a complainant goaded by private injury, and an association appealing to the Secretary of State, are equally impotent, and all strive in vain to effect any permanent improvement in these matters. Although pains and penalties, impartially enforced, have been found efficacious, local and interested authorities will never enforce them. Permanent improvement has been secured in London, where a Government inspector, independent of, and superior to, local authority, is appointed. In this neighbourhood, Lord Ravensworth's statement about the Smoke and Alkali Acts at the meeting alluded to is still, except during some short periods, true. He said: "In practice I do not perceive that any benefit whatever has resulted from their legislation in the towns of Newcastle and Gateshead. A very decided improvement has undoubtedly taken place in London and the suburbs. Why is the difference noticeable between the two places? This question seems only capable of one answer: Because in the one case the provisions of the law are enforced; in the other they are not."

The remedy for this failure in legislation is obvious; and I trust that our President, and others who have influence with the Sanitary Commission now sitting, will recommend that in future all sanitary acts should not be permissive, and should be carried out by educated and competent sanitary inspectors appointed by Government, and unfettered by local interests and feelings.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE VIII.—Monday, March 6th, 1871.

IN a well defined group like the Carnivora, the corresponding teeth in its various members can be readily recognised. For instance, on comparing the Cat and the Dog, there can be no question that the absent teeth in the former are the two posterior molars and the anterior molars. In the Cat, then, the upper præmolars are the second, third, and fourth; of these, the second is often deciduous.

The milk-teeth of the Cat resemble, on the whole, the permanent series. The incisors and canines are smaller than in the adult. There are three molar teeth in the upper jaw: the first is a small simple tooth; the next is a tooth having sectorial characters, but with its inner lobe opposite the middle of the blade instead of its front edge—an arrangement which is present in some other Carnivora. In the lower jaw, the sectorial tooth has a more developed heel.

All the animals of the genus *Felis*, with trifling exceptions, are alike as regards their teeth. The anterior præmolar is sometimes absent; sometimes there is a small heel on the lower sectorial tooth; and there are variations in the degree of development of the inner lobe, which is smallest in the Cheetah.

Extinct Feline Carnivora were distributed over a large range of time and space, and present some remarkable modifications of dentition. One of the forms, varying much in size, to which the name *Machairodus* has been given, has been found in various parts of Europe, Asia, and America. In it, the incisors and lower canines were rather small in proportion; the molar teeth resembled those of the Lion, but the inner lobe was reduced in size. The canines in the upper jaw were very large; and, in those that were not worn down, the anterior and posterior edges, especially the latter, were much serrated. Some trace of this exists in the Tiger.

In the *Hyænodon*, another extinct Feline Carnivore, the type of dentition was very unlike that of any existing Mammal. After the canine, there came four præmolars, gradually increasing in size; then three teeth corresponding to the true molars, increasing also in size, and all sectorial. This was the arrangement both in the lower jaw and in the upper. The animal would thus appear to have been highly carnivorous; but this supposition is rather opposed by the fact that the jaw was elongated.

The *Arctoidea* or Bear tribe form a very natural group. They are destitute of the cæcum, which is present in all other Carnivora. They are divided into three families—the *Mustelidæ*, represented by the Weasel; the *Procyonidæ*, of which the Racoon is an example; and the *Ursidæ* or true Bears. The *Mustelidæ*, with one exception, have one molar above and two below; the *Procyonidæ*, two molars both above and below; and the Bears, three molars above and two below.

As a type of the *Mustelidæ*, the Martin, a very carnivorous animal, may be taken. In it we see an approach to the dentition of the Cats; the formulæ being $i \frac{3}{3}, c \frac{1}{1}, p \frac{4}{4}, m \frac{1}{2}$. The middle incisors are the smallest; the præmolars increase in size from before backwards. The upper sectorial tooth is very like that of the Cat, or perhaps more like that of the Dog; and there is one large grinding molar in the upper jaw. In the lower jaw, the four præmolars resemble those of the Dog, and gradually increase in size. The sectorial molar is very like that of the Dog; and behind it is a small tuberculated molar. This type is repeated almost exactly through the *Mustelæ*, comprehending the Weasels, Stoats, and Polecats; there may be a little shortening of the jaw, and the first præmolar is sometimes absent. In a large animal of this group—the Wolverine or Glutton, which is like a large Weasel or Martin with a coarse tail—the teeth approach those of the *Hyæna*. The Badger (*Meles*), which feeds to a great extent on vegetable food, has a curious modification of the teeth. The first præmolar is very small, and is often lost. The upper sectorial tooth has all its essential characters, but is much reduced in size. There is one large true upper molar with three cusps, and a large inner lobe with a ridge. In the lower jaw, the sectorial tooth has a small blade, and a very large heel with three tubercles; it is thus converted into a tuberculated grinding tooth. In the Otter (*Lutra*), the teeth are modified for an aquatic life. The tubercular portion is well developed; the sectorial has the inner lobe rather well developed. In the Sea Otter, one of the lower incisors and an anterior præmolar are wanting. The first teeth are greatly enlarged and rounded, working on each other almost like millstones. The sectorial elements are present, but in a much modified form, the teeth being adapted for crushing the shells of molluscs and crustacea.

The *Procyonidæ* have two molars on each side above and below. In the Racoon and Coatimundi, the inner lobe of the sectorial tooth is much developed, and has two tubercles. The tubercular portion of the tooth is developed at the expense of the blade. In the Kinkajou, the teeth are still more simplified. The *Ælurus* of Cuvier, an animal inhabiting the mountains of the north of India, is of very frugivorous habits, and its teeth vary much from those of ordinary Carnivora. The molars are very broad from side to side, and have a great number of cusps, arranged in rows one within the other. The sectorial tooth has the ordinary elements present; but the inner lobe is large, and has three points.

In the *Ursidæ* or true Bears, the teeth are elongated, and the jaws large. The formula is $i \frac{3}{3}, c \frac{1}{1}, p \frac{4}{4}, m \frac{2}{2} = 42$. The number is thus the same as in the Dog, but the anterior præmolars are very little developed. In the upper jaw, the middle incisors are the smallest, and the outer ones the largest. In the lower jaw, the incisors are not inserted in a straight line, the second lying behind the others. The canines are smaller than in the Dog and Cat. The three posterior præmolars are small and simple; the middle one sometimes disappears; the last always remains. The upper sectorial præmolar is rather smaller than the true molars, but retains something of the sectorial character. In the Polar Bear, the sectorials as well as the other teeth approach nearer to the ordinary carnivorous type. In the Sloth-Bear of India, which feeds on ants, the molars are much modified, and in old animals are worn down by the sand taken in with the food.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

NOTES ON THE MEDICAL TREATMENT OF FIBROUS DISEASE OF THE UTERUS BEYOND SURGICAL INTERFERENCE.

[Continued from page 372 of last number.]

EDINBURGH ROYAL INFIRMARY.

Dr. J. MATTHEWS DUNCAN is in the habit of prescribing iodine and bromine in small doses, long continued. The same medicines with other saline constituents are made available at Creuznach by bathing and by the local hypogastric application of strong or nearly concentrated solution of the constituents of Creuznach water—Creuznach brine; some of this course of treatment can of course only be done at the springs; other parts can be done here. This treatment by iodine and bromine, Dr. Duncan believes, is not *certainly* of any use, but is probably so. It sometimes appears to be of use in diminishing the bulk of fibroids. In hæmorrhage from fibroids he recommends the same treatment as for menorrhagia; it is equally efficient, and that is, he believes, saying very little for it. When the hæmorrhage is severe, a solution of perchloride of iron, as strong as in the *Pharmacopæia*, may be applied to the bleeding surface by means of Dr. Duncan's hollow probe and syringe, made by Young the cutler in Edinburgh. This is of inestimable value in some cases; in the worst cases it even distinctly saves life. Dr. Duncan treats inflammation of fibroids antiphlogistically.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.

MR. SPENCER WELLS objects to the term *fibrous*, as leading to erroneous ideas as to the nature and possible changes in these growths. Whether they are outgrowths from the peritoneal surface of the uterus, or are imbedded in the uterine wall, or project as ingrowths into the uterine cavity, they are simply excessive developments of the unstriped muscular fibres of the uterus, with more or less connective or cellular tissue. They contain little or no fibrous tissue; and though, from their appearance, they may not improperly be termed *fibroid*, they cannot be *fibrous*. Virchow's term *myoma uteri* is the more correct appellation. And this is not a mere word-quibble. Nobody could expect a fibrous tumour to disappear spontaneously; whereas any one who considers for a moment how the uterus grows during pregnancy and shrinks (by involution) in the few weeks after delivery, can easily understand how rapid may be the growth of the muscular fibre of the uterus; how the cellular spaces between the fibres may become filled with serum; how rapidly this may be absorbed; and how the muscular fibres themselves may cease to grow, may become atrophied, or may undergo a process of involution similar to that which occurs after delivery. Mr. Wells is astonished to find doubts expressed as to the fact of disappearance of these growths. He can only explain these doubts by the juvenility or limited experience of the observers; for he has seen quite a series of cases, where diagnosis has been beyond question, having been confirmed by such men as Farre, West, Priestley, and Oldham, and where there has either been complete disappearance or such a diminution as to reduce a tumour, burdensome from its size, to insignificant proportions. This is not seen in young women, is rare during active uterine life, but is not at all infrequent after the cessation of the catamenia. Whether medicines have or have not much or any influence over these degenerative or atrophic changes, is quite another question; but Mr. Wells thinks he has seen enough to convince him that they have very considerable influence, provided the remedy be adapted to the case. In those cases where the tumour is elastic, probably more cellular than fibroid, with a good deal of fluid infiltrating the cellular interspaces, varying a good deal in size according to the feelings of the patient, and confirmed by the measurements of the medical man, Mr. Wells thinks that the bichloride of mercury with bark is often followed by remarkable diminution in the size of the growth—sufficiently often to place the remedy and the diminution in a closer relationship than accidental coincidence. Where there is much irregular bleeding, he agrees with Dr. McClintock in regarding chloride of calcium as of great value. He has suggested the calcification of the growth, or of the nutrient arteries, as a possible explanation of its *modus operandi*; but does not attach much importance to the question whether this may or may not be true, if the clinical fact is established that patients who have been losing much

blood cease to do so after they have taken the chloride of calcium. The really important matter is to ascertain in what cases it will do good, and when it is useless. Where bleeding has more the character of menorrhagia—excessive loss at the regular menstrual periods, not irregular floodings—Mr. Wells has more confidence in the *vinca major* than in lime, gallic acid, or ergot. He was told of it by Mr. Squire, and prescribes it in the form given in Mr. Squire's version of the *Pharmacopœia*, who now makes a liquid extract from the leaves of the plant—the well known greater periwinkle of our shrubberies. The plant is so common that we hope much larger experience as to its use may soon be obtained. The surgical treatment of these tumours is beyond our present scope; but we may probably at some future time give some account of Mr. Wells's experience in this important department of practice.

Dr. W. R. ROGERS is of opinion that the medical treatment of fibrous tumours of the uterus must be essentially palliative. It is, however, true that fibrous tumours will occasionally become absorbed under medical treatment, especially after the climacteric period has passed. The flow of blood to the uterus is greatly diminished by the cessation of ovarian excitation; the calibre of its vessels is gradually diminished; and the uterus, and especially the fibroid growths, may then be absorbed, the process being aided by the persevering use of iodine and mercury. Anasarca and ascites often accompany advanced states of fibrous enlargement of the uterus, but hæmorrhage is the principal danger to be met. Pain, whenever occurring, must be subdued by turpentine fomentations, warm poultices, and opium, in whatever way it can be most suitably administered. Anasarca and ascites accompanying fibrous enlargement of the uterus should be treated in the usual way, by purgatives, diuretics, and tapping. Hæmorrhage, when not severe, is to be treated by full doses of astringents, as sulphuric, gallic acids, and acetate of lead; ice, also, is often useful. Dr. Rogers has not sufficiently tried hot water bags to say decidedly that benefit has resulted. Should these means fail to greatly diminish the loss, if not entirely to check it, he invariably plugs the vagina. In the intervals, purgatives of bitartrate of potash and jalap in full doses are used. Bichloride of mercury and decoction of ergot he has found of much benefit in some cases, and the persevering use of solution of chloride of calcium in others. Injections of iodine or solutions of iron after previous dilatation of the cervix have often materially checked hæmorrhages. In some cases free incision of the cervix, as advised by the late Sir James Simpson, will, he has found, arrest for a while and diminish the hæmorrhagic losses. The continuous current has been said to be successful in some instances, but he has never used it.

Dr. ROUTH, omitting all questions relating to local measures, such as the knife, injections, etc., speaks of the purely therapeutical treatment as being very effective. The remedies employed are bichloride of mercury, solution of chloride of calcium, bromide of potassium, compound tincture of ergot, strychnine, compound jalap powder, and purgatives generally; also electricity, iodine applied externally, and blisters. The use of these remedies, however, must be long continued. Dr. Routh has found benefit produced by bichloride of mercury in doses from one-sixteenth to one-twelfth of a grain night and morning with a little (a quarter of a grain) of belladonna, persisted in for a month at a time, then omitted a week or a fortnight, and resumed. This must be continued for a year, or even two, if need be. Solution of chloride of calcium, first recommended by M'Clintock, does some good. He begins with ten drops, raising the dose to forty or sixty twice or three times a day for a fortnight or three weeks, stopping a week or two, and then resuming. Every time he resumes it he begins with the smaller quantity, increasing the dose one drop daily. Bromide of potassium he gives in twenty-grain doses three times daily, or thirty-grain doses twice daily, without intermission, until an eruption occurs in the face; he then suspends its use for a few days, and again resumes it. The tincture of ergot and strychnia he gives in large doses, believing that they contract the uterus, and so impede nutrition, keeping up any diminution of size effected during a season of hæmorrhage, and causing thus, in the same way as when the uterus contracts after gestation, the absorption of the enlarged organ. Of purgatives given very freely, whether as adjuvants or singly, he thinks very highly. Dr. Routh had seen a large fibroid perfectly blue from congestion, and causing copious floodings at the periods, after a week's purging, diminish greatly in volume, and lose all its congestion, the bleeding being considerably diminished; and this with such purgatives as the ordinary *mistura alba*. He thinks, however, that those which contain the bitartrate of potash are best; such as the salt itself in two to four-drachm doses, or the compound jalap powder, half a drachm to a drachm three times a week, assisted occasionally with mercurials to relieve the liver. The continuous current of high intensity he believes to be most effective in some cases. It seems to coagulate the fluids in the tumours, and to disturb their nutrition, so that they become absorbed. He has seen a tumour of the size of a man's

head become as small as an orange in a year; but the disadvantage in this mode of procedure is that wounds are formed at the two poles, which are very difficult of cure. Dr. Routh's plan is to place one pole in the spine and the other within the vagina and os uteri, guarding all but the extreme end with gutta-percha. Dr. Routh thinks very highly of blisters on the abdomen, and specially of compound tincture of iodine regularly applied night and morning, only suspending its use when the skin is too sore. He thinks that it certainly assists other measures. In his treatment of such cases he does not restrict himself to any one plan. Dr. Routh adopts two or three, together with local measures.

Dr. W. H. DAY has adopted the plan of meeting symptoms as they arise. 1. Hæmorrhage is restrained by the injection of mild astringents into the vagina, and in severe cases, of perchloride of iron into the uterus; perchloride of iron and ergot are also administered internally. 2. Pain, and especially the dysmenorrhœa, is relieved by the administration of morphia, when the tumour occurs during the catamenial period. 3. Strong purgatives, especially aloetic, are avoided; the bowels being moved by a mild laxative, as confection of senna or a warm-water enema. 4. Catheterism is used when necessary. 5. A few leeches are applied to the labia or os uteri, should there be much congestion or pain, and rest in the recumbent posture is required. 6. A nutritious and non-stimulating diet is allowed. There are, he believes, many cases in which the health is so good, and the tumour creates no inconvenience beyond its bulk, that any kind of treatment would be uncalled for and injudicious. The administration of large doses of iodide of potassium in such cases has appeared to him to do more harm than good.

Dr. WILTSHIRE believes that, the removal of uterine fibroids by drugs being, in the present state of medical science, practically out of the question, we have to consider how we can best relieve the troublesome and sometimes dangerous symptoms which attend them. The chief of these are, (1) hæmorrhage, and (2) the various troubles arising from pressure on the surrounding parts, as pain, congestion of the lower parts, dysuria, pain in defæcation, hæmorrhoids, etc. The treatment which has yielded the best results in his hands has been much as follows. For hæmorrhage, as a rule, he relies very much upon a combination of bromide of potassium and gallic acid, and is rarely disappointed with the result. The addition of opium is also at times beneficial. In other cases, he gives large doses of the perchloride of iron; in others, again, sulphuric and gallic acids, with or without opium. Acetate of lead, alum, turpentine, and digitalis, are also at times useful; but he has not much experience of the last of these. But it is important to pay attention to the blood, as there is oftentimes a hydræmic condition which favours hæmorrhage. We should, in fact, aim rather at hyperinosis than hypinosis. Locally, hæmorrhage may be combated by means of cold astringent injections, position, and in some cases plugging. The local abstraction of blood by means of leeches, applied shortly before or upon the advent of a menstrual period, will sometimes prevent more serious losses at that time. Prior to the change of life, hæmorrhage is the symptom most to be dreaded. After that critical period, the mechanical effects arising from the presence of a tumour in the uterus, as a rule, alone call for our attention. Not that by any means women are exempt from these during their menstrual life: indeed, the younger women often suffer most severely from this cause, and notably at the catamenial periods. The evils resulting from pressure Dr. Wiltshire treats thus. For pain, he uses morphia hypodermically or by the mouth, opium, chloral, suppositories of belladonna and morphia, opium enemata, etc. But, as pain is often attended by, if not consequent upon, pelvic congestion, he endeavours to abate the latter by means of pediluvia, leeches to the anus, etc., aperients, and so on; and often, by combining this plan with the administration of antalgic remedies, very satisfactory results are obtained. Pain on defæcation may arise from one of two causes—mechanical interference to the escape of fæces from encroachment of the tumour upon the rectum, or hæmorrhoids. In either case, laxatives are useful. Dysuria is another very distressing symptom; it often arises from pressure exerted by the tumour upon the bladder, but may also be occasioned or aggravated by an unhealthy condition of the urine. He has obtained excellent results from the administration of bicarbonate of potash and henbane or belladonna, and sweet nitre. When the urine happens to be albuminous, as in the case of large growths, perhaps from mechanically induced congestion of the kidneys, he gives a few doses of a hydragogue cathartic. Dr. Wiltshire has used bichloride of mercury for long periods; but, although he thinks that benefit has in various ways been derived from its exhibition, he has failed to convince himself that it causes the absorption of these growths. He has no experience of the use of lime-salts. Dr. Althaus thinks that uterine fibroids may be amenable to treatment by electricity, as similar growths elsewhere situated are; but Dr. Wiltshire has not yet acted upon this suggestion. It is just possible, he thinks, that ergot might extrude some fibroids—

those, for instance, situate just under the mucous membrane, and loosely encapsulated, the capsule being partially disintegrated by ulceration. In considering the effect of any method of treatment, it is well to bear in mind that uterine fibroids may disappear after abortion or delivery. But Dr. Wiltshire believes that pregnancy does not commonly happen in women who are the subjects of these growths.

[To be continued.]

RICHMOND SURGICAL HOSPITAL, DUBLIN.

IMPERFORATE ANUS: OPERATION: RECOVERY.

(Under the care of Mr. W. STOKES.)

THE notes of this case have been taken by Mr. Agmon Vesey.

William Davison, aged three days, was admitted into the Richmond Hospital, under Mr. Stokes's care, on November 5th, 1870. The nurse stated that the child was born three days previously; and that, the day after his birth, there being no motion from the bowels, he had a dose of castor-oil. This not having the desired effect, she examined the anus, and discovered the malformation. That evening, the child had its first attack of vomiting. On Saturday, November 5th, he was seen by Dr. Darley of Coolock, who sent the child to the Richmond Hospital, to be placed under Mr. Stokes's care; and he was admitted in the evening.

On admission, the patient seemed quiet. There was no fulness round the anus; no vomiting. He passed urine freely. On November 6th, he had several attacks of vomiting during the night. The skin was very yellow; the abdomen full and tense. At 12 o'clock Mr. Stokes saw the child, and determined to operate at once. The patient was accordingly placed in the lithotomy-position, and a careful and deep dissection in the perinæum was made before the gut was arrived at. This was then opened, drawn down, and fixed by several points of suture to the edges of the wound. A large quantity of meconium was evacuated at the time of the operation. At 2 P.M., he was greatly improved; there was no bleeding. At 9 P.M., there was no return of the vomiting. He had passed large quantities of meconium during the day. The skin was losing its yellow appearance. The patient was in every way greatly improved. He had taken a few drops of brandy in milk.

November 11th. To-day, a slight erysipelatous inflammation of the scrotum was observed. It was ordered to be well dusted with flour; and the patient was ordered to have two-drop doses of the solution of perchloride of iron thrice daily.

November 13th. The patient was much better, and the erysipelatous inflammation had almost disappeared.

November 17th. The patient returned to the country.

In speaking of this case clinically, Mr. Stokes remarked that its chief peculiarity consisted in the great depth from the surface at which the gut lay. This circumstance rendered the operation somewhat more difficult and hazardous than it generally is.

CASES OF CASTRATION.

(Under the care of Mr. W. STOKES.)

On Friday, the 31st ult., Mr. W. Stokes delivered a clinical lecture on some cases for which he had occasion to perform the operation of castration. One of these was a chronic hæmatocele; another, a rapidly growing sarcomatous tumour of the scrotum, which probably originated in the cord; a third, a syphilitic tubercular hydro-sarcocele; and a fourth, which Mr. Stokes operated on the Wednesday previous, a granular testis. The clinical history and anatomical characters of these cases were described at considerable length; and the lecturer then discussed the conditions of the testicle and its coverings that indicate the operation of castration. The various methods that are adopted by surgeons for arresting hæmorrhage from the divided vessels of the cord were mentioned—such as the ligature *en masse*; the deligation of each vessel; the application of the actual cautery; torsion; acupressure; and, lastly, a modification of the third variety of acupressure, which, the lecturer stated, might be termed the acupressure *en masse*. It consists in transfixing the cord with a strong acupressure-pin, and twisting a strong but flexible piece of wire over it. The vessels are closed by the pressure of the pin behind and the loop of wire in front. One great advantage that this method possesses, besides the rapidity and facility with which it can be applied, is, that it prevents the possibility of the occurrence of the unfortunate accident of retraction of the cord into the abdomen before the hæmorrhage has been effectually arrested. This method, Mr. Stokes mentioned, he tried first in the Meath Hospital, where he believed the practice had been previously adopted by Mr. Porter in a case where he had occasion to amputate a penis close to the pubis. In all the cases in which Mr.

Stokes had tried it, the result had been most satisfactory. The lecturer concluded with a demonstration of a large number of drawings illustrative of various affections of the testicle for which the operation of castration is indicated.

BRITISH MEDICAL JOURNAL.

SATURDAY, APRIL 15TH, 1871.

ON THE DESCENT OF MAN.

WITH our own species it is a misfortune, as far as science is concerned, that we are *subjects* as well as *objects*. It is a painful necessity for man to have to dissect his own species, although the material for such research is the mere remainder of the individual subjected to this justifiable sacrilege. But man may be subjected to a greater dishonour than this: such a dishonour is done to him when he is made to be nothing else than the lucky result of material laws, working unconsciously through indefinite time.

Mr. Darwin, in his book on *The Descent of Man*, is more reverent than thus to strip us of all our glory, yet he does not satisfy us; and we believe that numbers of his most affectionate and admiring disciples will make a stand, look about them, and reconsider their views, and in many cases try to see if, perchance, they can beat a retreat. All recent research has an evolutionary character. Everything tends that way in the present state of our knowledge; but we are landed where we would not choose to be, and our leader has bewildered us instead of putting our minds at rest. "The whole of man"—man throughout, from top to bottom, within and without, body, soul, and spirit—is not, cannot be, included within Mr. Darwin's theories. We wish he had stuck to his pigeons and his orchids, and had let us alone; he is always, as a certain burlesque writer has it, "putting that monkey on our back"; but we do not relish what Mr. Darwin is doing to us. The most patient, the most skilled of all living naturalists, has failed, we think, to get hold of the proper clue; and if he be right, then we inevitably fall so deep that no arm shall reach us to give us help. Our descendants may be reached, peradventure, by the time that all gallinaceous birds have acquired eyes to their tail-feathers, by the time when the Ethiopian shall have changed his skin, and the leopard his spots. Do we, then, give up evolution? Far be it from us! No, we hold it fast; our restless minds anchor upon it; our ambitious minds build by its help a scaffolding the most perfect and the most beautiful that man has ever erected to assist him in his highest scientific researches.

Mr. Darwin evidently lays great stress upon embryological or morphological facts. Our knowledge of the morphology of the vertebrata is still in its infancy; yet we know enough to satisfy us that the whole group is essentially an unity. In respect of his embryological development, man does not appear to be better than a beast, and in the Book of Nature all his members were written, which in continuance were fashioned when as yet there was none of them. Hence the excellency of this branch of natural science. Yet the extreme difficulty of this kind of labour has made it very little attended to; few have drunk deep at this fountain. The vertebrate "phylum" is very much broken, even if we include all the known fossil types; else we have no doubt that the vertebrate "life-tree", if all its branches could be seen by us, would enable us to trace every culminating branch to its root. Awkward and confusing as is the fact, yet man would form the highest fruitful branch of this tree—that is, in his merely animal nature. Moreover, when the groups are perfect, the modifications by which allied types differ are gentle in the extreme. Look at the passerine birds and the feline mammalia, to say nothing of various families of osseous fishes and the countless forms of the invertebrata. Morphology opens the eyes to the losses in organic forms which this planet has undergone. Let any one bethink himself of the gap between the suctorial fishes, such as the

bag and the lamprey, and that lonely type the lancelet, worse off as to brain than the "king of men", who, according to Thersites, "had not so much brain as ear-wax". Like Mr. Darwin, we keep forgetting man in the forms that lie below him; but if we really knew how *species* have been developed (and we are not certified as to this at present), then we should have to account for many perplexing faculties and powers in our own species which would lie unconformably upon the attributes of the fundamental beast.

If the nature of man were merely that of a full-blown animal, then the opinion of Pythagoras concerning wild-fowl would not have been quite so absurd as it was; but we think nobly of that which is the absolute distinction—the soul, and no way approve of such opinions. Whether man was created separately from the rest of the "primates", or whether "in the parturient fulness of time" he took a sudden start in development, the ape-like brain undergoing a rapid but wholesome hypertrophy, we have at present no means of knowing.

We heartily wish that there were no savage races. They are in the way: they are Darwinian in their low, foul, savage, beast-likeness; but they are on the planet, and on the planet they have been for no short period. Yet Mr. Darwin must confess that they have the capacity for improvement, indefinite improvement. If he says no, then how did the higher races arise? How did we get our Darwins and Wallaces? our Lyells and Huxleys? Is not the outward form of every creature the symbol of its inward faculties and powers? Does not the "fair large front and eye sublime" proclaim the beauty and the power of the inner man, just as the "forehead villanous low" befits the mind, the temper, and the powers of an ape? There is in that beast's low mind no rudiments of even a "natural theology".

We need not distress ourselves about the matter. Mr. Darwin's book is a most delightful production; and he is welcome to keep, in extreme voluntary humility, all his curious ideas about the slow and laborious way in which Nature made him. As for ourselves, we still like to trace our lineage back to "Noah the sailor", and to the "grand old gardener and his wife"; and we like to hear of the Divine Friend of this Mosaic Adam coming to talk with him in the cool of the day. Is the unity of organic Nature absolute in itself, genetically, or is it one because of the unity of the "First Mover"?

All power must be one *ex parte principii*, however diversified *ex parte termini*; and neither the "abysm" of time during which the evolution of organic forms has been taking place, nor the multifariousness of these forms, nor the great expansion of the faculties that became possible with increased differentiation and perfection of parts, can possibly be confusing to that Being whose existence is a *nunc stans*—an eternal Now.

DIPSOMANIACS.

IN a supplementary report of the York Lunatic Asylum, Dr. Needham, the medical superintendent, observes that the absence of legal provision for the care and custody of habitual drunkards has forced itself upon his attention with unusual prominence during the past two months. Numerous applications have been made to him for advice and assistance. He has, he says, unfortunately been compelled to reply that the lunacy and general law of this country in no way provides for the care of such persons, although they are clearly unable to take proper care of themselves, and although they exercise over themselves, their families, and their homes, all those devastating influences which frequently follow in the track of mental disease; but that health, reason, and property, may be alike wasted, without the State thinking it necessary to interfere. That such is the case, appears to him to be anything but conducive to the general well-being of the community. He points out that the law recognises the obligation on the part of every able-bodied man to provide for the maintenance of his family, and to abstain from attempts at the commission of suicide; and that it visits with penalties any infraction of either of these duties. It would surely, then, he argues, not be unreasonable to demand that he shall not wilfully pauperise his family, and

hand over his obligations towards them to those who already have imposed upon them similar responsibilities; and that his attempts at suicide, which are none the less determined, because they are not conducted upon ordinary principles, shall, at all events, confer upon the State the right to adopt measures for attempting their repression.

Dr. Needham expresses the hope that at no distant period the difficulty may be met by the enactment of laws having these objects, but carefully guarded so as to secure the *legitimate* liberty of the subject; and that thus a legal basis may be given for the establishment of inebriate asylums similar to those which have achieved such a marked success in America. He then refers to the Washington Home in Boston, which was opened in 1857, as a type of these institutions, and speaks of the results which have followed its operations as having been of the most satisfactory character. It is stated, upon undoubted authority, that, since it was opened, upwards of three thousand inebriates have been received, and nearly two thousand of them discharged apparently permanently cured. Similar results, according to Dr. Needham, seem to have attended the treatment in the New York State Inebriate Asylum at Binghampton. In twenty months, three hundred and ten persons were received, and fifty per cent. discharged, having, to all appearance, reformed after a single probationary trial. We have, however, recently had occasion to refer to a very different estimate of the success of this institution.

An attempt at legislation in this direction was made last session in the House of Commons by Dr. Dalrymple, but the difficulties attending some of the provisions of this Bill, and the late period of the session when it was introduced, induced him to withdraw it. It is now again before the house, and we invite for it the consideration of our associates. Dr. Needham points out that provision was indeed made by the 6th section of the Act 16 and 17 Vict., chap. 96, for the reception into licensed houses of boarders, "who being conscious of a want of power of self-control, or an addiction to intemperate habits, or fearing an attack or a recurrence of mental malady, and being free agents in all respects, are desirous of residing as voluntary boarders in an institution for the insane, with a view to medical treatment and supervision"; and that this provision was extended to asylums and hospitals by the Lunacy Acts Amendment Act of 1862. He adds, however, that not only do the previous application to the Commissioners in Lunacy, which is requisite in each case, with its consequent delay, and the fact that the applicant must have been under care as a lunatic within five years previously, interfere materially with the value of the enactment; but its purely voluntary character, which enables the boarder to discharge himself when he most urgently requires control, effectually deprives it of all value to the majority of those to whom some power of control, legally conferred upon their friends or others, would prove an invaluable benefit.

PHYSICAL MORALITY.

THERE is little room for doubt that to strike at the root of the filth, laziness, drunkenness, and disease, of great cities, we must begin with the homes of the poor. We must trust to the school-board and to the available means of regenerating their physical conditions of existence. Overcrowding means dirt, disease; moral and mental depression: these carry with them vice and drunkenness as invariable corollaries. Dr. Trench has, therefore, done wisely in calling attention, by a special publication, to the necessity of revolutionising working men's dwellings in Liverpool, as an essential preliminary to success in the efforts now being made to relieve that town of the reproach of excessive mortality and a shocking record of drunkenness. He traces the present high death-rate in no small measure to the immigration of Irish pauperism in 1846-7, when from 60,000 to 70,000 immigrants settled themselves permanently in Liverpool, occupying every nook and corner of the already overcrowded lodging and sublet houses, and even forcing themselves into the cellars (about 3,000 in number) which had been closed to habitation under the provisions of the Health Act of 1842. The question of providing dwellings for the poor is one in which philanthropy needs

commercial enterprise as an ancillary ; and the point on which Dr. Trench lays stress is that on which we have before insisted. It pays, financially and directly, as well as morally and indirectly, to erect suitable dwellings for the working classes. The numerous blocks of buildings in London now belonging to the Labourers' Friend Society return an average profit of over $4\frac{1}{2}$ per cent. on the capital invested in them. The well-known Society at Hastings, of which Dr. Greenhill is honorary secretary, is equally successful. Two similar experiments in Liverpool—Sylvester Street and Upper Frederick Street—yield respectively 5 per cent. and $4\frac{1}{2}$ per cent. on the outlay. The regeneration of the homes of the poor is a heavenly work, but those who even in doing this work prefer a good terrestrial security for their investment, can find it here. Not only do we commend very earnestly Dr. Trench and Mr. Beard's pamphlet on working men's dwellings in Liverpool to the commercial men of that town, but we venture to renew our recommendation to our medical readers to keep the subject in mind, and to impress its importance on those who are able to carry out these reforms in their respective neighbourhoods. There is not any class of men to whom this kind of good work is more congenial than to medical men. There is, so to speak, a physical morality, of which they are the appointed apostles ; nor can they well be more nobly occupied than in fulfilling that mission.

THE Metropolitan Free Hospital has received a donation of £1,000 from E. G.

"A GENTLEMAN" has given £2000 to the Derby Infirmary, as an Easter offering.

AT Buenos Ayres yellow fever is reported to be very rife and still increasing. The death-rate is stated at nearly 200 per day.

MR. PAGET has been elected an honorary member of the Medico-Chirurgical Society of Edinburgh.

THE Royal Hospital for Diseases of the Chest has for the third time received the munificent sum of £1,000 from "W. P. D."

THE advocates of women's rights contemplate opening a College for women at Cambridge, in order that they may have the benefits of the University lectures.

THE foundation-stone of a new cottage hospital at Savernake, near Marlborough, has been laid by the Marchioness of Ailesbury. The estimated cost of the building is £3,000, towards which about £2,750 has been promised.

THE biennial festival of the Great Northern Hospital was held at the Freemasons' Tavern on Wednesday evening ; Lord G. Hamilton, M.P., in the chair. Donations to the amount of nearly £1,700 were announced.

THE ratepayers of Tettenhall, Staffordshire, have, upon a poll, decided against establishing a Board of Health, by a majority of 343 out of 474. We should like to hear what is their expenditure on pauperism arising out of sickness.

CASES of hydrophobia are reported with extraordinary frequency in the North of England just now. We should be glad to have, from some of our readers about Blackpool and elsewhere, some facts. We are disposed to place very little reliance on newspaper reports of hydrophobia.

A PART of the Second Report of the Royal Sanitary Commission, just published (vol. iii, part 1), contains minutes of evidence from November 1869 to June 1870. It includes the evidence of Dr. Burke, Dr. Druitt, Dr. Budd, Mr. Simon, Dr. Batt, Mr. Baker, Dr. Heslop, Dr. Hill of Dublin, and Mr. Liddle. Their evidence is extremely able and interesting. Dr. Burke touches chiefly on registration of births and deaths ; Budd on the prevention of disease ; Dr. Druitt on the working of sanitary laws ; Dr. Heslop on Poor-law organisation.

AT the annual meeting of the Royal Surrey County Hospital, Guildford, Mr. R. Eager, one of the honorary medical officers, who has been professionally connected with the hospital from the date of its foundation, in which he took an active part, was elected consulting-surgeon to the hospital.

AN excellent annual report of the sanitary condition of Leicester in 1870, by Dr. J. Wyatt Crane, lies before us. We can endorse the accuracy and value of his comments upon the causation and prevention of the zymotic diseases which have been prevalent there, and we desire to commend them to the attention of the local press and the local authorities.

OUT-PATIENT HOSPITAL REFORM.

A MEETING will be held at the rooms of the Royal Medical and Chirurgical Society on Thursday, April 20th, at 8 P.M., Sir William Fergusson, Bart., in the Chair, when the report of the Committee will be presented, and resolutions thereon be proposed.

ACCIDENTAL POISONING.

THE Council of the Pharmaceutical Society have taken the disastrous step of withdrawing the proposition to require precautions against accidental poisoning. They have done this in obedience to the wishes of the trade. The position of the Council, as at once representatives of the trade and guardians of the public interest, is an anomalous one. In this instance, they appear to have yielded to the former and stronger influence. It is for the Privy Council now to protect the larger, but more feebly represented, interests of the public. Mr. Sandford has wisely and honourably, we think, resigned his office of President, as a consequence of the decision of the Council.

A WISE TOWN COUNCIL.

WE heartily congratulate the Leeds Town Council on having unanimously resolved to exercise powers granted to them under the Improvement Act of 1870, and, under the advice of their medical officer of health, Dr. Robinson, to demolish a whole block of sixty houses in Kirkgate, making compensation to their proprietors. The walls of these houses are saturated, says Dr. Robinson, with miasmatic filth ; the houses are unfit for human habitation, and so built and placed that they neither can be properly ventilated nor healthily occupied : they are densely crowded, and are perpetual centres of zymotic disease. In purchasing this property for the purpose of demolition, the Town Council are showing a praiseworthy public spirit and common sense. It is a real benefit to the town, and in the end will be a true economy.

ISOLATION OF INFECTIOUS DISEASES.

MEDICAL officers of health such as Dr. Whitmore of Marylebone are in a position to appreciate the enormous evils which spring from a neglect of proper precautions to isolate in their own homes persons suffering from infectious diseases. He proposes, in a paper which he has recently published on our present urgent sanitary needs, to supplement the laws already in force by some others of a more stringent kind. It should, he thinks, be provided that a person attacked with either small-pox, scarlet fever, measles, or fever, should be at once removed to a separate apartment ; that it should be compulsory on the medical attendant immediately after his first visit to give written information of the case to the local authority, by whom a competent inspector should at once be sent to inspect the premises and give orders for the immediate abatement or removal of any existing nuisances ; that such inspector should at the same time leave with the parents or friends of the patient a printed notice setting forth the rules to be observed for preventing the spread of the infection, the nature of the disinfectants to be used, and the methods of using them—these rules to be drawn up by the College of Physicians or some other competent body ; that the patient during his illness should not be visited, except for some urgent purpose, by any other persons than the medical attendant and the nurse ; that he should not be permitted to leave the apartment or mix

with other persons until the medical attendant had certified in writing to the local authority that his recovery was complete, and that he was no longer capable of communicating the disease; that, on the receipt of the certificate, the inspector should again visit the house for the purpose of seeing that the sick-chamber and its entire contents had been properly disinfected, and that, if this had been done to his satisfaction, he should give a certificate to that effect to the parents or friends of the patient; that, in cases where no separate apartment could be appropriated to the use of the patient, he should at once be sent to the hospital; that any infringement of these rules and regulations should subject the offender to fine or imprisonment, at the discretion of the magistrate hearing the case; and that the local authority should be the prosecutor. It may be doubted how far it would be possible to carry out such a code, in view of the popular English view of the constitutional liberties of individuals to perpetrate all sorts of sanitary follies and mischiefs unchecked, each in his own castle. There can be no doubt of the excellent results which would follow the enforcement of such regulations, if it were possible.

OPERATIONS AT PROVINCIAL HOSPITALS.

OUR Liverpool correspondent writes (April 3rd):—At the Infirmary, on Tuesday last, Mr. Hakes operated upon a neuroma of two years' standing, in a scrofulous young woman. Two tumours, one as large as a hen's egg, and the other somewhat smaller, were removed from within the sheath of the sciatic nerve by an incision in the middle third of the posterior aspect of the thigh. A number of much smaller growths were found to accompany the nerve downwards as far as the popliteal region; but these were so numerous, and so intermingled with the fibres of the nerve, that no attempt was made to remove them. On the same day, Mr. Harrison removed from a man about forty years of age a large osteo-sarcomatous tumour of about two years' growth, occupying the entire left half and a portion of the right half of the lower jaw. The patient from whom the large scrotal tumour was removed is doing well.

THE MODEL WORKHOUSE AT WITHINGTON.

OUR Manchester correspondent writes:—The model workhouse at Withington has been found wanting in the matter of hospital accommodation for small-pox. Mr. Cane, the Poor-law inspector for the district, discovered that, in spite of the protests of the medical officers, cases of variola were put into a ward where a great quantity of clothing was stored, and immediately over the general receiving-room. It is probable that Dr. Edward Smith will shortly visit and report upon this palace for the pauper. In the meantime arrangements are being made for the erection of a separate small-pox ward. The news of this fresh expenditure, however necessary, will scarcely be received with becoming satisfaction by the inhabitants of the district, owing to the fact that the poor-rates are already extraordinarily heavy.

THE LESSONS OF THE SMALL-POX EPIDEMIC.

AT the special and earnest invitation of the Council of the Metropolitan Counties Branch of the Association, Dr. Edward C. Seaton has consented to open a discussion on some of the lessons to be derived from the present epidemic of small-pox, at an ordinary meeting of the Branch to be held at the Charing Cross Hotel at 8 P.M. on Friday next, the 21st instant. The well-known ability and large official experience which Dr. Seaton is known to possess, are a guarantee that his communication will be one of no ordinary interest and value. It is at some considerable personal inconvenience that Dr. Seaton has kindly responded to the urgent and repeated solicitations of the Branch Council; and we trust that for this reason, no less than on account of the surpassing importance of the subject to be discussed, every member of the Branch who has the opportunity will feel it to be a duty to attend on the occasion. Cards of invitation for public men and others interested in the subject, can be had by members on application to either of the Secretaries, Dr. A. P. Stewart, Grosvenor Street, or Dr. Henry, Great Coram Street.

THE CONTAGIOUS DISEASES ACTS.

DR. C. B. TAYLOR, Nottingham, writes to us as follows.

"I cannot understand the repeated statements which have appeared in your paper respecting the beneficial sanitary effects of the Contagious Diseases Acts. Referring to Dr. Balfour's tables, I find that in Devonport and Plymouth there were, in the year 1860, 440 cases of venereal disease per 1,000 of mean strength. In the year 1864, there were 289—a fall of 151 cases without legislation. The first Act came into force early in 1865, and the satisfactory decline previously noticed is checked; and, after three years (1865, 1866, and 1867) of higher figures, in 1868 the number of cases per 1,000 of mean strength was brought no lower than 280—a fall of nine cases only in the four years. At Chatham and Sheerness, during the year 1860, there were 351 cases per 1,000 of mean strength; in 1865, the admissions were 292 per 1,000—a reduction, without any Acts, of 59 cases per 1,000. Now Sheerness is constantly cited as affording conclusive evidence of the success of the system; yet for both these stations, in face of a reduction of 59 per 1,000 without any Act, we find that, after the introduction of the first Act in 1865, and of the second measure on November 6th, 1866, a reduction of 17 only for both stations was effected in three years. At Shorncliffe, during the year 1860, there were 327 cases per 1,000 of mean strength; in the year 1867, there were 215 per 1,000—a diminution, without any Act, of 112 cases. The Act came into operation in this place July 1868; and since then, so far from a diminution, we find that the extraordinary increase of 82 per 1,000 has taken place, the number of cases having risen in 1868 to 297. At Woolwich, during the year 1860, there were 473 cases per 1,000 of mean strength; in 1865, the number was reduced to 204 per 1,000—a fall, without any interference, of 269. The Acts came into operation in November 1866; and since its introduction the diminution has been only 13 per 1,000, the admissions during the year 1868 being 191. At Aldershot, during the year 1860, the cases were 339 per 1,000 of mean strength; in 1866, they were 233—a fall, without any Act, of 106. The Act came into force at Aldershot April 12th, 1867; and since then the proportion has increased by 4, the admissions in 1868 being 237. At Portsmouth, in 1860, the number of cases was 503 per 1,000; in 1865, the number was reduced to 329—a fall, without any Act, of 174. In 1868, the admissions to hospital were 348, showing an increase of 19 cases per 1,000, in face of a previous reduction of 174. Thus, adding together the numbers expressive of the diminution of disease at each of these six stations from 1860 to the application of the first Act in each case, we find a *total diminution of 871 cases per 6,000 without legislation*; while, if we perform a similar operation for them *after the application of the Acts*, we find an *aggregate increase of 66 per 6,000*—in short, a slight diminution at three stations, a large increase at one, and a decided increase at two."

It is not a little puzzling to find Dr. Taylor once more bringing forward statistical fallacies which have been repeatedly exposed and refuted. The very table in the House of Commons Report from which he quotes shows that, in the early years to which he refers, the ratios declined in nearly all the stations, but that the decline of these years did not continue in the unprotected, but was replaced by fluctuations which have brought the entries for venereal disease there up to their old level; while in the protected districts under the Acts the entries have continued yearly to subside lower and lower. Thus, from a table compiled under the direction of Dr. Balfour, F.R.S., Head of the Statistical Department of the Army Medical Department, for the information of the House, and quoted by Mr. Berkeley Hill at p. 477 of the *Journal of the Statistical Society* for 1870, it is seen that, at the stations where the Contagious Diseases Acts are in operation, the ratio of admissions for primary venereal sore declined steadily from 100 per 1,000 of mean strength in 1864 through the following years, till in 1869 it reached 59 per 1,000 of mean strength; while in the unprotected stations it fluctuated down to 98 in 1866, which was its lowest point; but in 1867 it rose again to 106; in 1868, to 108; and in 1869, to 111. This is calculated in each case on a strength of 29,000. Mr. James Lane has shown, from figures equally unimpeachable, that, since the women known as common prostitutes have been subject to periodical medical examinations in the protected districts, the proportion of diseased individuals among them has sunk from 41.5 per cent., the ratio in the first quarter of 1869, to 24.3 per cent., the ratio existing in the third quarter of 1870. Thus it is shown beyond any dispute that, both for men and women, the amount of syphilis is diminished by one-half

where the Acts are in operation. The very striking experience of the Guards at Windsor and London, detailed in our columns by Assistant-Surgeon Myers, is only a particular case in point, but one which is strikingly illustrative. Very little thought or experience in drawing accurate deductions from figures might have warned our correspondent of his error in adding together six annual ratios per thousand of effective strength, and treating that as identical with the ratio per six thousand of effective strength *per annum*. The objection to the Acts on antecedent moral grounds is comprehensible: it is less easy to understand the repeated struggle against plain facts and figures.

THE ACCIDENTS AT THE VOLUNTEER REVIEW.

ALTHOUGH the list of accidents this year is, contrary to expectations, surprisingly small, we regret to have to record the death of a private in the London Rifle Brigade, who, while in the ranks, fell dead upon the racecourse. He was a warehouseman's assistant, and only twenty-two years of age; but, as it appeared from the *post mortem* examination made on Tuesday by Mr. Chater, Surgeon to the Brigade, and Mr. Nicholls, of the Sussex Hospital, he was suffering from heart-disease of some standing and from commencing disease of the lungs. It is a matter calling for remark, that the body lay on the ground for nearly two hours before an ambulance-waggon could be procured. We allude to this, because we expressed a favourable opinion on the proposal of the National Aid Society to send down six waggons—an offer which the War Office declined to accept. A civilian sustained a fracture of both legs, caused by a fall from his horse, which rolled over him. The fracture of the tibia of one limb was comminuted. He was removed to his own home in Brighton, and is doing well. Another civilian belonging to the town received an injury of the right ankle from a horse knocking him down and treading on him. He was removed to his home in an ambulance-waggon. A sergeant of the 23rd Surrey fell out of the ranks through injury from marching to an old sprain of the ankle. A private of the 30th Middlesex Volunteers sustained a partial rupture of the right ligamentum patellæ, consequent on his falling into a hole. He was removed to the Sussex County Hospital in an ambulance-waggon. A considerable number of men kept falling out of the ranks from fatigue, being unused to the really active work entailed upon many of the regiments throughout the day. Of course this is to be expected, when it is borne in mind that many of the men are much beyond the age which would render them liable to be called upon, unless under exceptional circumstances, for active service; but still the constant, unnecessary, and harassing movements of troops were frequent enough to fatigue and irritate the youngest and most active. If the gentlemen on horseback remembered this, and were less busy in giving orders, they would, we are sure, be more efficient as commanders, and get more work out of their men. The hospital arrangements, as we intimated last week, were as ample as could be desired. The hospitals were three in number, situated, one at the Gravel Pits, a second at the Industrial Schools, and the third at the Grand Stand. The arrangements were under the direction of Brigade-Surgeon Cordy Burrows, 1st Sussex Artillery Volunteers, and Assistant-Surgeon Mayo, of the Inns of Court Volunteers. They remained in charge of the hospital at the Grand Stand during the review; Surgeon Hodgson and Assistant-Surgeon Hart, of the 1st Sussex Rifles, at the Gravel Pits, the head-quarters; and Surgeons Heckstall Smith, of the 1st Sussex Artillery, and Chater, of the London Rifle Brigade, at the Industrial Schools. The bedsteads and bedding were granted to Mr. Burrows by the Brighton Directors and Guardians. There were three ambulance-waggons, which had been sent down by the War Office, and were attached to different divisions of the force.

NAVAL MEDICAL SERVICE.

THERE has been the same difficulty of getting medical officers for the American navy as for our own. Congress has taken the question up as a serious one, and, finding that the ostensible cause was in the distinctions kept up between the executive and civilian staffs of the service, has

equalised the position and pay of medical officers with those of the commanding branch of the service. This will benefit our profession materially; and still greater advantages will be derived from the changes within the corps itself, giving a far larger proportion of superior officers with higher grades of emolument, than exists in our navy. We think that the changes are, as a whole, more in accordance with the French than with the British system, especially in forming a corps of "cadets," who, like the *sous-aides* of the French, are only medical aspirants that may render themselves competent for admission into the medical staff of the navy. We sincerely hope that what is enacted will be accepted with good feeling, free from encroachment on one side, and from obstructiveness on the other; for it will then be found there is much gain to a public service in having its medical department composed of contented officers, sensible of their privileges, as well as conscious of their high responsibilities.

CHOLERA IN ST. PETERSBURG.

THE correspondent of the *Standard* in a letter dated April 7th, says the number of cases of cholera in St. Petersburg is decreasing. The highest was on March 17th (O.S.), when there were 157; and the lowest on the 22nd, when 64 were reported. The total number remaining on March 18th was 919; and on the 25th 868. The writer fears, however, that the excesses in which the lower classes always indulge at the end of Lent will again fill the hospitals.

SCOTLAND.

DR. J. MATTHEWS DUNCAN has been unanimously elected one of the consulting-physicians of the Royal Edinburgh Hospital for Sick Children.

THE EDINBURGH MATERNITY HOSPITAL.

WE are glad to observe by the report of the Committee of this institution, which was read at the annual meeting on Monday, that the Sanitary improvements which we had occasion specially to point out as absolutely necessary, and which have since been effected by the directors, have been followed by a very marked decrease in the mortality amongst the patients. The meeting passed a resolution urgently soliciting subscriptions from the public to enable the Managers to remove the hospital to a more favourable locality, and to provide a proper school for the instruction of students and nurses in midwifery and the treatment of diseases of women and children.

THE EDINBURGH ROYAL INFIRMARY AND THE LADY STUDENTS. ON Monday, the Managers considered the scheme sent in for their approval by the Committee for securing a Complete Medical Education for Women. It was moved and seconded that a Committee be appointed, to consider whether the plan now proposed for admitting female students to clinical study can be carried out without injury to the interests of the Infirmary or of the sick poor. An amendment was moved and carried by a majority of nine to seven, that the Managers regard the present proposal as incomplete.

WINTER PRIZES.

AN Edinburgh prizeman writes with reference to the prizes which it is announced were recently awarded to the female medical students at Edinburgh.

"In your impression of the 8th instant, it is stated that certain ladies gained prizes at the Medical School in Edinburgh at the close of the past session. This is quite true; still I think the paragraph may mislead some of your readers, not knowing the whole facts of the case. Dr. Watson, in his Junior Surgery Class, gave separate prizes to the male and female students; so that the prizes gained by Isabel Thorne and Matilda C. Chaplin were competed for only by their female friends. In no competition with the males did the lady students succeed in obtaining a prize."

IRELAND.

THE discussion at the Surgical Society on Revaccination has been postponed to Friday, the 21st.

DR. GOODALL of Wexford, one of the ablest of the provincial practitioners of Ireland, died of typhus on Monday last.

THE important discussion on Re-vaccination in the Surgical Society is to be resumed this evening (Friday, April 14th), Dr. Kidd being the first speaker.

SMALL-POX.

SMALL-POX shows no disposition to spread in Dublin, although ten cases have been imported from London, Liverpool, Wexford, and Drogheda. The Public Health Committee and the dispensary physicians have been most active in their respective duties.

ROYAL COLLEGE OF SURGEONS.

FOR the quarterly examination next week, sixty-nine candidates have entered—a number greater than at any corresponding period. The prizes in physiology given in the School of Surgery to first, second, and third years' students have been won by Messrs. W. Owen, R.N., Stoker, and W. R. Murphy, all of the Meath Hospital.

UNIVERSITY OF DUBLIN.

THE examination for the degree in State Medicine will begin on June 12th. The subjects and the percentage value of each are as follows:—Medical Jurisprudence, 25; Chemistry, 15; Meteorology, 15; Vital Statistics, 15; Morbid Anatomy, 10; Law, 10; and Engineering, 10.

ECONOMY.

THE Secretary of the Board of Superintendence of the Dublin Hospitals receives £150 a year from the Government, and the rent of the board-room is £70 a year. These figures have remained unchanged in the estimates. The maid-of-all-work rejoices in the salary of £5 a year. This seems to have tempted the Government economists; and henceforth, it appears from the list of reductions that she is to be satisfied with £3 a year.

THE MOUNTJOY PRISON.

WE expressed a very strong opinion at the time of the removal of Dr. R. McDonnell, F.R.S., of Dublin, from his office as medical officer of Mountjoy Prison, that it was an act at once impolitic and oppressive. The suppressed reports of Dr. McDonnell, published in the *Nation* of April 8th, are far more creditable to him than they are to the authorities. Wherever it is possible, there is, we think, a great advantage alike to the authorities and the prisoners, that the principal medical officer of a prison should be a gentleman in independent practice, and not wholly dependent for his bread upon the prison authorities; and that the inquests should be held by the ordinary coroner of the district, and not by a special coroner for the prison. We are inclined to think that, if necessary, a special enactment should be passed for the purpose of making this imperative.

PROFESSORIAL CHAIRS IN THE EDINBURGH UNIVERSITY.

THE Committee appointed by the University Council in October to consider the constitution of the Board of Curators, in consequence of representations made to the Council by graduates, and alumni, and others, on the recent appointment to the Chair of Midwifery, have prepared their report, which will be submitted to the University Council at its meeting on the 18th instant. We have had an opportunity of referring to a copy of the report by the Committee, and extract the following, which contains the opinions of the Committee on the various plans suggested to them, and the changes to be recommended to the Council by them.

"Several changes of a more or less complete character have been suggested to the Committee. It has been proposed to abolish the Court

entirely. Some members of the Committee have expressed an opinion that, in the event of the appointment of a responsible Minister of Education, the patronage of the University would be best exercised by the Crown. Others have suggested that the most natural course would be to follow the plan adopted in all the other Scotch Universities, and to vest the patronage at present in the hands of the Curators in the University Court. The Committee, however, looking to the terms of their remit and the circumstances under which they were appointed, do not think it necessary to express an opinion on either of these propositions, as it does not seem to them that the Council contemplated anything further than a change of some kind in the existing Board. Another scheme has been proposed which would affect to a large extent the patronage of the University, and which seems to the Committee to deserve considerable attention. At present, the majority of the Chairs are in the appointment of the Curators, and a lesser number in the appointment of the Crown. If the Crown would consent to transfer its patronage to the Board of Curators, and accept instead the power of electing a number of members of that Board proportioned to the number of Chairs of which it at present exercises the undivided patronage, a trustworthy Board would be secured without interfering with the proportion of patronage at present exercised either by the Crown or the Curators. Were the Crown to appoint four Curators in addition to the four appointed by the Town Council, and the three by the University Court, the share it would thus enjoy in the appointment to an increased number of Chairs would compensate the undivided patronage it at present exercises over the smaller number; and the proportion of influence at present enjoyed by the Crown, the University Court, and the Town Council, would not be seriously altered. While, however, it is the opinion of the Committee that the proposed appointment of four members by the Crown, in addition to the existing Curators, would form a satisfactory Board for exercising the patronage of the University, they do not think it at all probable that the Crown would be willing to give up its patronage, and they therefore deem it right to propose to the Council a change of a more practicable character. The simplest way in which such a change may be made is by retaining unaltered the number of Curators at present elected by the University Court and Town Council, and adding two or more members to the Board from some other quarter. The addition of two members either appointed by the Crown or the University Council, or one by each, would remove the dual character of the Board, and meet most of the objections which have been brought against its constitution. It does not seem to the Committee of very material consequence by whom these additional members are appointed, as the principal object is simply to prevent the risk of the Board falling into two sections; but, on the whole, they prefer that they should be appointed by the University Council. The Committee therefore beg to report that, in addition to the existing Board of Curators, two members ought, in their opinion, to be appointed by the University Council."

THE EASTER MONDAY REVIEW AT BRIGHTON.

Breakfast to the Volunteer Medical Officers—Presentation of a Testimonial to Mr. Cordy Burrows.

As we previously intimated, Mr. Cordy Burrows, Surgeon 1st Brigade Sussex Volunteer Artillery and Principal Medical Officer in charge of the medical arrangements, had, with his characteristic hospitality, as on several previous occasions, issued invitations to breakfast to all volunteer medical officers who were expected to attend the review on Easter Monday. The number of volunteer surgeons who availed themselves of Mr. Burrows' kind hospitality was very large; almost every regiment on the ground being represented. The Rev. Newman Hall, the Rev. H. H. Wyatt, Honorary Chaplain to the 1st Sussex Rifles, and Mr. Hepworth Dixon, were also present. The breakfast, an elegant and substantial *déjeuner à la fourchette*, was served in the Banqueting Room of the Royal Pavilion. At the conclusion of the meal, Mr. Burrows expressed his gratification at seeing so many of his professional brethren connected with the volunteer service, and added that it was a source of pleasure to him to assist in upholding the character of the town for hospitality. He then proceeded to explain the medical arrangements for the day.

Dr. CARR, Brigade-Surgeon 1st Kent Rifle Volunteers, then rose and said that, on behalf of the members of the volunteer medical staff—more especially those connected with the metropolitan corps—he had the pleasure of presenting Mr. Burrows with a small expression of their friendship and esteem, in recognition of his increasing hospitality, kindness, and assistance, rendered to them on all occasions when in the discharge of their duties at Brighton. [*Applause.*] Had there been time, a large amount of money might have been collected by his

friends, Mr. H. Spencer Smith, of the Civil Service, and Dr. John Murray, of the London Scottish Volunteers, the promoters of the testimonial, when, instead of the snuff-box then in his hand, he might have had the pleasure of presenting Mr. Burrows with a service of plate of more value in itself, although he did not doubt that the present now made would, as an expression of regard, be esteemed by Mr. Burrows just as valuable. Might he, as he always had done, share his possessions with generosity worthy of his fame and well-known character. [*Applause.*] Mr. Burrows had been successful in obtaining for the volunteer medical officers recognition from the War-Office, to which they were fairly entitled. Dr. Carr begged Mr. Burrows to accept the testimonial in remembrance of their affection for, and sense of obligation to him, wishing him long life and health, and desiring that he might still continue to discharge the many important services in connection with the town of Brighton, which he already had rendered. [*Loud applause.*]

The box was of massive gold, beautifully made, and enriched with florid chasing in relief, of leaves, flowers, and foliage, on a matted ground. The inner surface of the lid bore the following inscription:—"To J. Cordy Burrows, Esq., Surgeon 1st Sussex Volunteer Artillery, and P.M.O. Easter Monday Reviews held at Brighton, from the Volunteer Medical Officers on duty, as a mark of their friendship and esteem. Easter Monday 1871."

Mr. BURROWS, who on rising to respond was received with a very warm greeting, said that, although he was not unaccustomed to public speaking, he was so taken with surprise that he could not express himself as he could then wish, for the opening of the heart closed the mouth. Nothing in the world could have given him more pleasure than such a recognition from the branch of the service to which he had the honour to belong. He thanked them heartily for their elegant present, which had been given to him quite unexpectedly; and he trusted that ere long government would give that organisation to the volunteer medical force which was so much needed.

VACCINATION AND SMALL-POX.

DR. VINTRAS discusses with intelligence and conviction some of the asserted *Advantages of Animal Vaccination for the Prevention of Small-pox* (London, Churchill) in a report which he drew up at the request of the Brazilian minister. He has, we believe, for some weeks employed this method on a somewhat extensive scale, having made arrangements for keeping up a succession of vaccinated heifers for the purpose. We shall hope to be able to place his experience before our readers.

DR. GEORGE OLIVER, of Redcar, publishes a *brochure—Plain Facts on Vaccination* (London, Simpkin)—in which he discusses briefly and with great clearness what vaccination is, what it has done, and what it can yet do, as a means of saving human life and lessening human suffering. Dr. William Woodward, of Worcester, an experienced vaccinator, has also published in pamphlet form some very convincing "Letters on Vaccination" (Worcester, Deighton and Son), reprinted from the *Worcester Times*. Dr. Barlow publishes also, for a couple of pence, a sensible and interesting lecture *On the History of Small-pox and Vaccination* (London, Simpkin), worthy of perusal and suitable for distribution. We have before us other pamphlets on the subject from "Medicus," Mr. Webber, and Dr. Crisp, but cannot recommend them as worth general perusal.

DURING the period from February 12 to March 4, ten deaths from small-pox occurred in Florence. In the week ending March 11th, there were six deaths from that disease. Diphtheria has also proved fatal in several instances. In the corresponding weeks of the years 1869 and 1870 there were no deaths from either of these diseases.

SMALL-POX IN LONDON.

THE Registrar-General's Report on the health of London for the week ending April 8th, states the fatal cases of small-pox in London during the past ten years have been remarkably stationary; in the nine weeks ending the 1st inst., the weekly numbers ranged between 185 and 227, averaging 205. Last week the number was 214, showing an increase of 22 upon the previous week. In six permanent and temporary hospitals for this disease, 76 deaths were recorded last week. After distributing, so far as is practicable, these deaths in hospital among the districts from which the patients were admitted, it appears that 18 deaths from small-pox last week belonged to the west group of districts, 53 to the north, 16 to the central, 55 to the east, and 72 to the south. The

fatal cases showed a considerable increase in the south districts, especially in Battersea, where 12 of the 28 deaths were referred to this disease, in addition to 2 which occurred in the Hospital at Stockwell. In the district of St. Pancras, the disease continues fatally prevalent in Somers Town and Kentish Town.

THE FRIENDS OF SMALL-POX.

A MR. HENRY CLARK, who was committed to gaol for fourteen days for non-compliance with the Vaccination Act, at Derby, was received on his release from prison by bands of music, and "several thousand people with a large red flag carried in front." It is almost a pity that these several thousand cannot be allowed the luxury of a separate encampment, and of an epidemic of small-pox all to themselves. After a short time, we fear the bands of music would be hushed, and the strong speeches take a different turn. We are just now suffering, in this and several great cities, a plague of small-pox, which we largely owe to the enthusiasm of the "anti-vaccinationists." If they would organise an isolated community for the voluntarily unvaccinated, and separate themselves from people who neither desire to infect others nor to be infected with that pestilence, it is possible that the small-pox and its friends would be in a short time simultaneously extinguished.

VACCINATING WITH SECONDARY LYMPH.

OUR Manchester correspondent writes:—There is no doubt that much lymph from revaccinated persons is being used in Manchester, and at least one public vaccinator is in the habit of indiscriminately employing virgin lymph and the lymph of revaccination. The *a priori* argument which this gentleman adduces for the practice is that the production of a typical vesicle ("a drop of dew upon a rose-leaf") points to the fact that the original vaccine virus is quite worn out, and the individual is therefore as though he had never been vaccinated. The *a posteriori* argument which he urges is, that he obtains typical vesicles from this lymph, and that in all cases when it has taken effect the vaccinated persons resist the influence of fresh vaccine matter as decidedly as they do when virgin lymph has been employed; and, by parity of reasoning, he maintains that, if they resist vaccinia, they will equally resist variola.

ALLEGED PRODUCTION OF TYPHOID FEVER BY VACCINATION.

SEVERAL political journals, says *L'Imparziale*, have given currency to a statement that a large number of the pupils of an institution in Pinerolo were lately attacked with typhoid fever after being vaccinated with lymph taken from the arm of a female who afterwards manifested that disease; in other words, that the typhoid was propagated through the vaccine matter. Dr. Danesy of Pinerolo, however, in a communication made to our contemporary, puts the matter in a quite different form. "It is too true," he says, "that there have been forty more or less severe cases of fever in our college, and that seven have died; but that the cases originated in the manner referred to, is absolutely untrue. The vaccinations and revaccinations which were performed in the college and in the town were done with lymph sent from Turin, or collected and preserved in tubes by our vaccination commissioner. The vaccinations were performed at the request of the authorities; they were nearly all successful, and to their performance is to be attributed the almost entire freedom of our town from small-pox, which is spreading through some of the neighbouring localities. In the cases of typhoid fever in the college, nearly one half occurred in youths who had not been vaccinated at all; and the disease in them was as severe as in those who had been vaccinated."

THE PRESENT EPIDEMIC.

WHILE it is impossible not to feel painfully shocked at the persistence and mortality of the small-pox in London, it is idle to affect surprise, when we consider the facilities which we offer it for spreading, and the half measures of prevention employed in those parishes which adopt any. In the parish of Islington, for example—not the most benighted district of the metropolis—we find, from Dr. Ballard's last monthly report, that of 123 cases noted by him during the previous month, only 68 were removed to hospital, the others being treated at home, in such circumstances that they cannot fail to spread the contagion. It is true, he observes, that under certain circumstances there are powers of compulsory removal; but, for all practical purposes, the provisions for this form of public protection have broken down under the stress of the epidemic pressure. After the removal of all who are willing to be

removed, foci enough of contagion yet remain to keep up the disease among our crowded population. Notwithstanding the number of persons vaccinated weekly, there are thousands remaining who are unprotected by neglect of primary or secondary vaccination, and who will furnish victims for this hideous malady for some time to come. The numbers of fresh cases which he has reported refer only to those among the poorest classes. The 45 deaths (at the current death-rate from small-pox, about 17 per cent. of those attacked) represent not 123 but 264 cases; so that he calculates that the cases which come under his cognisance are less than the half of what actually occur in all classes of the community in his district. Of 318 houses of which he has a record which have become infected in the district since December, 146 have not yet been disinfected. In order that the probable efficiency of a complete sanitary system to deal with such an epidemic may not be discredited, it is necessary to remember how very incomplete our sanitary system is. Mr. Göschel told the guests at the Mansion House, a few nights since, that ministers often smile at the complaints which are publicly made of their slowness to deal with acknowledged evils: we feel sure, however, that the smiles with which the frequent complaints of slowness to improve our sanitary legislation may have been greeted in the Cabinet cannot have been unmixed with sadness. Only a ministerial Mark Tapley of the most pronounced character could be perfectly jolly under such circumstances.

SPECIAL CORRESPONDENCE.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

The Weather.—Prevalence of Phthisis in Austria.—Steps taken by the Government in the Matter.—Health-resorts of Austria.

WE have just had a foretaste of what is said to be the peculiar summer weather of Vienna; and if experience, as it threatens, repeat itself, the high winds and blinding clouds of dust which characterised it will shortly drive all who can afford to leave the capital to their summer retreats. To every one this weather is most unpleasant, and especially obnoxious to the weak-chested, who require no scientific acquaintance with the etiology of consumption to be fully impressed with the necessity of seeking a more quiet and pure atmosphere, if they wish to avoid contracting the dreaded "Vienna disease." Such a change of residence, however, is manifestly beyond the means of the great majority of phthisical persons here and throughout Austria; and so we find that the percentage of deaths from "tuberculosis" is increased rather than diminished in this country during the summer months. How very high this percentage at present is, and how Vienna especially suffers, may be readily learned. If I consult the newspaper of to-day, I find that out of a total of 39 deaths in the city, 11 or 28.2 per cent. are from so-called "tuberculosis." This morning I counted in four wards in the General Hospital which I usually visit, 29 "tuberculous" cases—mostly phthisis—out of a total of 85 patients; that is, 34 per cent. The published statistics of deaths give somewhat less alarming results, the yearly average being put down as 25 per cent., which, however, is a sufficiently great proportion to far surpass that of most other large cities. Thus it is twice as unfavourable as in London—12.5 per cent.; while in Paris, Nice, and New York, the percentages are 16.7, 14.3, and 12.5 respectively. Only the famous Madeira comes up with Vienna; there also a fourth of the deaths are from "tuberculosis."

This enormous death-rate from such diseases has at last alarmed the Austrians; and the Government has now felt it to be its duty to bestir itself in the matter, and to inquire into the spread of consumption in the land, and into the means to be adopted for combating it. Last year, accordingly, the Minister of the Interior laid before the Royal Imperial Central Statistical Commission for their opinion the work of Dr. Küchenmeister of Dresden, which appeared in 1869, and which is probably known to many of your readers.* The statistical Commission consulted at once with men familiar with the subject; and, following the advice which they received, asked the three medical corporations in Vienna for their opinion. This week the answer of the Medical Club is being returned; that of the College of Physicians was sent in a short time ago; and so far the two agree in pronouncing on the subject to this effect: "That such investigations on the spread of phthisis in Austria, and on the absence of the same from many mountainous regions, as well as on the cause which lies at the foundation of this, should not only furnish results of the greatest value to science, but also be invaluable for the

well-being of the people. Whatever is to be done, however, must be undertaken and carried out with the greatest conscientiousness by able men standing at the head of the profession. Above all, there must be organised a registration of deaths in the whole country, even in the most obscure districts."

Meanwhile, the absence of phthisis from Alpine regions has been turned to practical account by the most prominent physicians of Vienna, as Skoda, Oppolzer, Ducheck, etc., who send many patients suffering from diseases of the lungs and larynx to reside during the summer in the high valleys of the Austrian Alps; and this, it is said, with the best—often with most surprising—results.

Ischl and Aussee are the two favourite health-resorts; and it is extremely probable that, when the Government comes to make arrangements for providing the poor with the benefits which as yet only the rich can enjoy in the way of change of climate, either of these two spots will be fixed upon. Ischl must be known to many English physicians as the most fashionable Austrian Alpine resort, and is extremely popular; but as a summer residence for consumptives it cannot for a moment compare, in the light of our latest experience in the treatment of such patients, with the second mentioned, where phthisis is absolutely unknown amongst the natives. Aussee is an Alpine valley in Upper Styria, only one and a half German miles to the south of Ischl, to which, as we have said, it is much to be preferred, not only, however, on account of this perfect immunity of its inhabitants from tuberculosis, but also because it lies 2,100 feet above the sea-level (Ischl only 1,500), and because, from its being perfectly surrounded by mountains, the lowest of which is 4,000 feet high, such an unpleasant and dangerous element as wind is quite unknown.

A question here readily suggests itself—Why should not English physicians, following the example of their Viennese brethren, avail themselves of this hitherto to them almost unknown climate, and send their consumptive patients to the Austrian Alps, and to Aussee especially? Ischl is easily reached from the English side by taking the rail to Gmunden, and thereafter crossing the wonderful lake of the same name; and Aussee is separated from Ischl only by a mountainous but excellent road of three hours. The whole of the country abounds in most romantic scenery.

For the benefit of those who prefer having their patients under careful medical superintendence while abroad, I am able to add that a Vienna physician, Dr. Schreiber, who devotes himself to the study of medical climatology, with a special view to the treatment of diseases of the lungs, has erected in Aussee a so-called *sanatorium*, where the delicate and sick are under his direct care, while deriving every advantage from the climate.

In thus drawing the attention of English physicians to the advantages of the Austrian Alps as a summer residence for invalids, I cannot but regret that Dr. C. J. B. Williams did not extend his tours beyond Switzerland and the Tyrol in his visit to Alpine Summer Quarters, of which he gives such a pleasant account in the BRITISH MEDICAL JOURNAL for November 20th and 27th, and December 4th, 1869. The true value of the country to which I now refer might thus have been sooner recognised in England; as it is, I hope that during the coming season some competent English physician will visit it, and report upon the probable benefit to be derived by his countrymen from a climate which has already done so much for the Austrians.

Vienna, April 6th, 1871.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

THE corner-stone of the new Hospital for Infectious Diseases was laid last week by the mayor on land attached to the present building, which has existed about twelve years. The building will cost £6,000, and the land £4,000, of which £5,000 has been granted by the Town Council, and about £3,000 is required to complete the undertaking; it is designed to accommodate one hundred patients, who contribute something towards their maintenance while in hospital, the rest of the expenses being defrayed by voluntary contributions. The existence of such an institution supplies a pressing want in this town, where it is intimated that there are about 21,000 domestic servants, 20,000 seamen, besides clerks and other persons with precarious incomes, all of whom are without adequate provision when attacked with contagious or epidemic diseases. The proviso that the patients shall contribute towards the expenses of the institution appears reasonable enough; and in fact many persons gladly avail themselves of the hospital, the contribution being willingly paid either by the patients themselves or by their employers or friends. The amount of eleemosynary medical aid afforded annually in this town is brought to light in

* "On the occurrence of Consumption according to Altitude, Geographical Position, Geological Disposition of the Soil of the Place, and the Prevailing Occupation of the Inhabitants, in several Regions of Saxony."

a somewhat remarkable and startling manner, by a return published by the "Hospital Sunday Committee," from which it appears that, at the thirteen hospitals and dispensaries selected for participation in the fund raised on Hospital Sunday, no fewer than 115,477 patients received relief during the year 1869. Adding to these the average number of pauper patients admitted into the workhouse hospital and treated at their own homes by the district surgeons, which at the lowest calculation would be upwards of 30,000, we arrive at a grand total of very nearly 150,000, or rather more than one person in every four of the population receiving gratuitous medical aid in each year.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A SPECIAL meeting of the Committee of Council will be held at the Freemasons' Tavern, Great Queen Street, Lincoln's Inn Fields, London, on Wednesday, the 3rd day of May, 1871, at 10 o'clock A.M. *precisely.*

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary.*
13, Newhall Street, Birmingham, April 10th, 1871.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT MEDICAL MEETINGS.

THE first meeting of the above district will be held at the Steyne Hotel, Worthing, on Tuesday, April 18th, at 4.15 P.M.; H. COLLET, M.D., in the Chair.

Dinner will be provided at 5.45 P.M. *precisely.* Charge, 5s., exclusive of wine.

All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce friends.

WM. J. HARRIS, *Honorary Secretary.*
13, Marine Parade, Worthing, April 8th, 1871.

METROPOLITAN COUNTIES BRANCH.

AN ordinary meeting of this Branch will be held at the Charing Cross Hotel, on Friday, April 21st, at 8 P.M.; when Dr. E. C. SEATON will open a discussion on Some of the Lessons to be derived from the present Epidemic of Small-pox.

A. P. STEWART, M.D. } *Honorary Secretaries.*
ALEXANDER HENRY, M.D. }
London, March 29th, 1871.

CUMBERLAND AND WESTMORLAND BRANCH.

THE spring meeting of the above Branch will be held at Kendal, on Wednesday, May 3rd, 1871; THOMAS F. T'ANSON, M.D., President, in the Chair.

Gentlemen intending to be present, or to read papers, are requested to communicate with the Secretary without delay.

HENRY BARNES, M.D., *Honorary Secretary.*
Carlisle, March 29th, 1871.

CAMBRIDGE AND HUNTINGDONSHIRE BRANCH.

A MEETING of the above Branch will be held at the County Hospital, Huntingdon, on Wednesday, May 3rd, at 2 P.M.; MICHAEL FOSTER, Esq., in the Chair.

Dinner at the George Hotel at 5 P.M. Tickets 13s. each.

Gentlemen intending to read papers, or to be present at the dinner, are requested to communicate with the Honorary Secretary.

J. B. BRADBURY, M.D., *Honorary Secretary.*
Corpus Buildings, Cambridge, April 1st, 1871.

WEST SOMERSET BRANCH: SPRING MEETING.

THE spring meeting of this Branch was held at the Railway Hotel, Taunton, on Thursday, March 30th, at 5 P.M.; J. CORNWALL, Esq., President, occupied the Chair. Fourteen members and one visitor were present.

Annual Meeting.—It was agreed that the annual meeting of the Branch shall take place at Bridgewater, under the presidency of W. H. Axford, Esq., on Tuesday, July 4th.

Small-pox and Revaccination.—A long and interesting discussion on these subjects took place, during which the opinions and experience of all present were taken *seriatim.*

Contributions.—The following communications were made. 1. On Bee-Poisoning. By B. R. MORRIS, M.D. This paper was read by the President, in consequence of Dr. Morris's absence; he having left Burnham to reside at Nottingham. It related several cases, including that of Dr. Morris himself, in which the sting of a bee had been followed by serious and even alarming symptoms.

2. On some Local Endemic Conditions. By G. CORDWENT, M.D. The main subject treated was that of epidemics dependent on water pollution. A lively discussion followed, and was kept up until the meeting separated at eleven o'clock.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN.

WE lately referred to the verdict of an East-end jury charging Mr. J. G. Defriez, a parochial medical officer, with manslaughter, against the protests of the coroner, and avowedly because he slighted the jury by not attending the inquest. On the trial at the assizes it was conclusively shown that "the defendant could not have prevented the woman's death, and that he had shown her every attention". The counsel "thereupon intimated that it was useless to proceed any further, and the defendant was then acquitted". But is this a fair or legitimate ending to such a prosecution? Is there not some means of reparation?

NARBERTH UNION.

THE following letter draws attention to what appears to us a very hard case.

SIR,—During the past fifteen years I have held the post of medical officer to the Third District of the Narberth Union, attending on an average two hundred cases annually, scattered over sixteen parishes, possessing an area of 40,000 acres. This entails the necessity of travelling on horseback a distance of ten or twelve, and frequently fourteen, miles through a mountainous country, in many parts inaccessible to every kind of vehicle, in addition to supplying all medicines, for the munificent salary of £35 *per annum.*

In the absence of any suitable place of residence within the district, I had to undergo the unpleasant ordeal of re-election yearly, which, with the arduous nature of the duties in comparison with those of the other medical officers (each officer being similarly paid), induced me, previously to again accepting the appointment, to ask for an increase in the salary. My application was rejected by the Board, the result being the issuing of advertisements intentionally to secure the services of some one as unfortunate as myself.

I append the number of cases attended by each medical officer during a period of two and a half years ending 29th September, 1870, abstracted from the published returns of the union; from which any conscientious person cannot fail to see the justice of my appeal.

	T. G. B.	C. L. C.	T. H. N.	M. G. E.
September 1868	59	59	56	105
March 1869	72	66	50	96
September 1869	60	34	36	96
March 1870	50	37	49	122
September 1870	54	55	54	166

295 251 245 535

The insertion of these facts in your JOURNAL will oblige
Yours etc., MAURICE G. EVANS, M.D.
Narberth, 8th April, 1871.

MR. W. H. SMITH'S NOTICE OF MOTION FOR A ROYAL COMMISSION.

SIR,—Will you permit me, through your columns, to inform the profession that Mr. W. H. Smith's notice of motion to refer the consideration of Poor-law relief in the metropolis to a Royal Commission, adjourned by the transfer of Mr. Göshen to the Admiralty, will come on for discussion on Friday, the 5th of May; and as it is most desirable, in the interests of the Poor-law medical service, that this motion should be acceded to, I do hope that Poor-law medical officers will not fail to press on such M.P.'s as they may know the desirability of supporting this gentleman's proposition. I would further point out to provincial medical men that, whilst the terms of Mr. Smith's motion limits the inquiry to the metropolis, Mr. Fawcett has given notice of his intention to move an amendment to the effect that the contemplated inquiry

should be extended to the whole of the country. That this motion will be opposed, and that, too, determinately, by all those who can be influenced by the sophistries of the officials at Gwydyr House, may safely be calculated on; it therefore behoves all those members of the profession who are interested in a humane and economic treatment of the sick and other poor, to use that wide-spread political influence which they undoubtedly possess in support of both these propositions.
Dean Street, April 12th, 1871. I am, etc., JOSEPH ROGERS.

MIDWIFERY IN WORCESTER UNION.

WE have read with no small pain the reports by the local papers of the recent meetings of the Worcester Board of Guardians. It might be supposed that the authentic records of the dangers incurred and fatal injuries inflicted on the lying-in women of the parish in the past, by the midwives formerly employed, would prevent the Board from ever entertaining the project of recurring, from motives of economy, to a system which has proved so dangerous and mischievous. At the meeting of the Poor-law Medical Officers' Association on June 24th, 1868, some very conclusive evidence on this subject was adduced. We heartily trust that it will be once more brought under notice. If the attention of the ratepayers could be called to it there is little doubt what their verdict would be—emphatically opposed to the possible petty saving contemplated at the direct risk of life and health to women in their hour of trial.

VACANCIES.

AYSGARTH UNION, Yorkshire—Medical Officer and Public Vaccinator for the Askrigg District.
CUNNINGHAME COMBINATION POOR-HOUSE, Irvine, Ayrshire—Medical Officer.
DUNOON and KILMUN, Argyleshire—Medical Officer for the District of Innellan.
GLENORCHY and INISHAIL, Argyleshire—Medical Officer and Public Vaccinator.
KIRKMICHAEL, Dumfries-shire—Parochial Medical Officer.
NARBERTH UNION, Pembrokeshire—Medical Officer for District No. 3.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

LUNACY CERTIFICATES IN IRELAND.

SIR,—The enclosed letter, signed by all the divisional magistrates of Dublin, has just been forwarded to me by Dr. Speedy. As it is of great importance, as bearing on the peculiar hardships of that gentleman and his colleague having to certify for one-fifth of the dangerous lunatics of Ireland, perhaps you would kindly insert it in your next issue.
I am, etc.,

D. TOLER T. MAUNSELL.

1, Harrington Terrace, Dublin, April 10th, 1871.

"On referring to the Annual Report of the Commissioners for administering the laws for the relief of the poor in Ireland, we find that the total number of dangerous lunatics actually certified for by the Poor-law medical officers of Ireland for the year ended September 1869, was 921. There were doubtless many other cases in which the valuable time and assistance of the medical officers was afforded, but which they considered unsuited for admission to an asylum. The great extent of some of the districts must often make this duty very laborious and extremely troublesome (two Justices being required to adjudicate). We would, however, particularly draw attention to the medical officers of Blackhall Street Dispensary, in whose district all the Dublin police business is transacted. These gentlemen were obliged to certify for 182 dangerous lunatics during the year 1869. They also frequently examined others who were not insane. It thus appears that on them devolves the important and responsible duty of examining and certifying for the dangerous lunatics of Dublin, being a fifth of the total number certified for in the whole of Ireland. This, we feel, inflicts a great hardship on those two gentlemen, Drs. Curran and Speedy, and we think that it could hardly have been anticipated in the framing of the Act. In conclusion, we beg to remark that, owing to the present state of the law on this subject, it is with regret we are unable to order any remuneration to these gentlemen, who occupy a high professional status, who have so well performed this duty up to the present, and on whose time this unremunerative labour must be a very great tax; and in our opinion it is only just and reasonable that they should obtain either a fixed salary, or a fee for their professional services in each case in which they assist us with their skilled evidence.

"Given under our hands at Inn's Quay Police Court, Dublin, April 6th, 1871.

J. W. O'Donel, Chief Magistrate.

Wm. Allen,

C. J. O'Donel,

J. H. Barton,

E. S. Dix,

} Divisional Magistrates, Dublin."

VACANCIES.

MITCHELSTOWN UNION, co. Cork—Medical Officer to the Workhouse.
WATERFORD UNION—Medical Officer and Public Vaccinator for the Ullid Dispensary District.

OBITUARY.

OWEN ROBERTS, M.D., ST. ASAPH.

WITH much regret we record the death of Dr. Owen Roberts, of St. Asaph. He was a native of Anglesea, and commenced his medical studies in Dublin, whence he proceeded to Edinburgh and there graduated in 1833, having passed the examinations of the London College of Surgeons and the Apothecaries' Hall in the previous year. After finishing his career in Edinburgh he went to Paris, and spent many months in the medical school of that city. On his return, he commenced practice near Rhuddlan, and subsequently removed to St. Asaph. He was much esteemed for the sound practical knowledge of his profession, to which he was ardently devoted, and upon which he to the last concentrated all his mental energies. A close observance of Nature's operations, and the possession of a talent for turning to practical utility all he saw and learnt, made him a sound practitioner and a valuable ally to his professional brethren. In addition to an extensive private practice, he enjoyed a considerable amount of consultation practice throughout the whole vale of Clwyd. He was an old member of the British Medical Association, and was generally present at the annual meetings; he was also an active and valued member of the North Wales Branch, was never absent from its meetings, and was ever ready with his large experience to enter into and elucidate all subjects of discussion, and turn to practical account the various events as they transpired. He served the office of President of the Branch one year. He was never married; and by his industrious and frugal habits he amassed a considerable fortune, which he has left amongst his relations.

His sad and sudden end remains to be told. He had just left a patient's house (in the highest spirits), and was hardly seated in his carriage, when, it is supposed, the bridle had caught on the end of the shaft, and the horse, tossing up his head, snapped the check-straps of the bridle, when the bit dropped out of the animal's mouth, and all control over him was lost, and he ran away. The carriage was upset, and Dr. Roberts was thrown out upon his head, which caused a fracture of the base of the skull. He died in a few hours, in the sixty-second year of his age. As a special mark of respect, he was interred in the cathedral churchyard on the 23rd of March, with full choral funeral service. The great esteem in which Dr. Roberts was held was evinced by the large number of sorrowing friends who attended his funeral, by the tradespeople closing their shops, and by the inhabitants generally lowering their window-blinds in token of grief for one whose Christian bearing, sterling friendship, and uncompromising honesty of character, had endeared him to all around.

STAFF-SURGEON MAJOR FRANCIS COGAN.

DR. COGAN was born in Slane, County Meath, Ireland, on October 1st, 1827, and, after his preliminary studies in the Diocesan Seminary of Navan, entered the Royal College of Surgeons of Ireland in 1845, and where he took the diploma. After passing his examinations for the army, he was nominated Acting Assistant-Surgeon on November 18th, 1851, and was transferred to the garrison hospital, Chatham, where he remained until December. He discharged duty subsequently in Walmer and Chatham, after which he embarked with detachments for New Zealand. Dr. Cogan was occupied at various stations in Ceylon, from May 1853, to November 1860. In 1855, he was appointed Assistant-Surgeon to the Ceylon Rifles. In the spring of 1858, he was Superintending Medical Officer at the Aripo Pearl Fishery, and was reported by the commander of the troops in Ceylon for praiseworthy and distinguished services during the outbreak of cholera there amongst the European and native troops. In November 1860, he returned to England, and served on several of the home stations till 1864, when he was sent, first to Gibraltar, and afterwards, in charge of the 2nd Battalion, 2nd Queen's Own, to Bermuda, where yellow fever broke out amongst the troops. He was promoted to the rank of Surgeon-Major on May 9th, 1865, after thirteen years and a half service, for "highly meritorious services during the epidemic of yellow fever in Bermuda". Having returned to England, he served on several stations in Ireland, and at Aldershot until February 1869, when he went to Bombay in medical charge of the 21st Fusiliers. He afterwards proceeded to Kurrachee, and received the thanks of Lieut.-Colonel Dalyell, 21st Fusiliers, "for the unwearied and unremitting attention, zeal, and energy, during an epidemic of fever, with which he discharged the duties intrusted to him." After serving at other stations in India, in charge of the 88th, 36th,

103rd, and 26th Cameronians, his health gave way, and he was allowed to return to Ireland on sick leave. He left Bombay on January 26th; and died of liver-disease on March 14th.

CORRESPONDENCE.

OUT-PATIENT HOSPITAL ADMINISTRATION.

SIR,—We beg leave, through you, to remind the profession that a meeting is to be held in the rooms of the Royal Medical and Chirurgical Society, Berners Street, on Thursday next, the 20th instant, Sir William Fergusson, Bart., F.R.S., in the Chair, to receive the Report of the Committee which was appointed last year to inquire into the out-patient hospital administration of the metropolis, with the view to its reform. The result of their work, extending over more than a year, is embodied in a Report, which can be obtained by enclosing twelve postage stamps to the Treasurer, Dr. Alfred Meadows, 27, George Street, Hanover Square, or to your obedient servants,

April 13th, 1871.

J. H. STALLARD, } Hon. Secs.
HEYWOOD SMITH, }

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners, on April 6th; and, when eligible, will be admitted to the pass examination.

Messrs. H. G. Jameson, Philip Addis, George Bosson, G. A. Davies, and Thomas C. Lawson (University College); H. K. McKay, E. H. Saunders, J. A. Rigby, and G. F. Masterman (Guy's); P. de H. Haigh, F. W. Strugnell, H. A. A. Nicholls, J. L. Whitsed, Percy Benson, G. T. Thomas, J. F. Dixon, and Henry Willcox (St. Bartholomew's); W. E. Webb and John Moxon (King's College); John Evans and R. Hopkins (London); R. Z. Pitts and Henry Charlesworth (Middlesex); B. M. Schlesinger and D. Protheroe Sager (St. Mary's); H. A. Lawton (St. Thomas's); C. Douglas (St. George's); and Robert S. Mutch (Montreal and Guy's).

Twenty-three out of the 108 candidates examined, failed to acquit themselves to the satisfaction of the Court of Examiners, and were consequently referred to their anatomical and physiological studies for three months.

The following gentlemen passed on April 11th, 1871.

Messrs. Ernest Field, Rupert C. Chicken, Francis T. Atkins, H. Hosking Clyma, Sydney H. Vines, Richard Coom, John P. Bevan, and Sidney Walter Spark (Guy's); George W. Parker, M. H. Campbell Palmer, and George Fletcher (St. Thomas's); William T. Hayward, David L. Parry, and Edwin Riding (Liverpool School); J. B. Bowden Triggs, Evan Powell, and Thomas W. Thompson (University College); W. Teasdale Wilson, George H. Huntley, and John R. Murray (Newcastle School); Arthur Nicholson and George F. Fenton (King's College); D. Addison Bradbury and Henry B. Hewetson (Leeds School); Joseph Ward and Arthur W. Strickland (Birmingham School); Henry W. Drew (Edinburgh); Alfred Reckless (Sheffield School); and Thos. J. English (St. George's).

The following gentlemen passed on April 12th.

Messrs. Frank J. Smith, E. R. L. Crespian, Frank T. Paul, Herbert P. Tayler, Thomas Evans, F. J. M. Palmer, F. Y. Sweetland, Robert Manser, George Snell, James S. Whitaker, and Alexander Willcocks (Guy's); Charles W. Drew, R. J. A. Dobbie, John Blunson, and Thomas H. Hayden (London); William D. Haslam, Henry Colgate, and Edmund Venning (University College); Henry Hex and A. E. R. Stephens (Charing Cross); Aurelius E. Maybury and Seymour Taylor (St. Thomas's); James F. Carolan (St. Mary's); James Smith (Newcastle School); Joseph Ward (Birmingham School); H. Hammond Smith (Middlesex); William Harvey (St. Bartholomew's); George S. Seecombe (St. George's); and Frederick Barrow (King's College).

The following gentlemen passed on April 13th.

Messrs. Charles Knatt, C. Cane Godding, Wilson Emms, and Edmund A. Bevers (Guy's); Ashley Gibbings, T. H. E. Amyat, Arthur C. Hutchings and Ernest W. White (King's College); Robert Kershaw, Frederick E. Pocock, and Samuel Welch (London); George Cleghorn, W. Harrison Coates, and Isaac Boulger (St. Thomas's); Edward S. Greensill, William Peacey, and F. Cheesman Clark (St. Bartholomew's); Frank Greaves and George Prothero (Middlesex); George H. Bishop and Edward E. Mahon (St. Mary's); Herbert M. Ellis (St. George's); Herbert Sage (Birmingham School); Julian A. Lea (Charing Cross); Cyrus Ablifton (University College); and William Johnson (Newcastle School).

Twenty-four candidates out of the 108 examined, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their anatomical and physiological studies for three months.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH: DOUBLE QUALIFICATION.—The following gentlemen passed their first professional examinations during the April sittings of the examiners.

Messrs. James J. Coleman, Galway; Tristram Lowther Montgomery, Dumfriesshire; Thomas Griffin, Galway; William Berry, Wigan; Daniel Cagney, Cromer; John Mackay, Sutherlandshire; William Spears, Birmingham; and Edward Hussey, Bath.

The following gentlemen passed their final examinations, and were admitted L.R.C.P. Edinburgh and L.R.C.S. Edinburgh.

Messrs. Joseph Mark, Rathfriland; Thomas Wm. Garde, County Cork; Francis Joseph Falvey, County Kerry; Owen Mulholland, Newtonhamilton; Edmund Thomas Hale, Glamorganshire; Robert MacGlashan Anderson, Perthshire; William Elder, Banffshire; Wesley Hayes Thompson, Worcestershire; and James Galt, Fifeshire.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentleman passed his first professional examination during the recent sittings of the examiners.

Mr. Davenport Parry, Argyll.

The following gentlemen passed their final examinations, and were admitted Licentiate of the College.

Messrs. John James Charles, Cookstown; Charles Pierce Downy Chittenden, London; John Aikman, Edinburgh; Henry Mark Levinge, Westmeath; James Glendinning, Dumfries; Alexander M'Lelland, Kirmabreck; John Campbell Douglas, Lanarkshire; William Sneddon, Cleland; Charles Macpherson, Greenock; James Allan, Glasgow; David Given Kennedy, County Antrim; Hugh Hamilton M'Naul, County Antrim; Charles Govan, Fifeshire; William Hall, Lancaster; Isaac Henry Anderson, Belfast; and John Wilson, Belfast.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 6th, 1871.

Batchelor, Ferdinand Campion, Brixton Hill
Bland, William Charles, Notting Hill
Gray, George James, Stonehouse, Devon
Jackson, James, Wootton Bassett
Spencer, Francis Henry, Chippenham, Wilts
Wharry, Charles John, Woolwich
White, Edmund, Park Terrace, Regent's Park

The following gentlemen also on the same day passed their first professional examination.

Batchelor, Edward E. A., St. Bartholomew's Hospital
Beardsley, Arthur A., Guy's Hospital
Butler, Francis William, Westminster Hospital
Cockerton, Henry H., London Hospital
Cogsman, Charles, London Hospital
Thompson, Henry, St. Bartholomew's Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

BRISTOL LUNATIC ASYLUM, Stapleton—Medical Superintendent.
LONDON FEVER HOSPITAL—Assistant-Physician.
MANCHESTER ROYAL INFIRMARY—Junior House Surgeon.
MIDDLESEX HOSPITAL—Resident Physician's Assistant.
MIDDLESEX LUNATIC ASYLUM, Colney Hatch—Assistant Medical Officer for the Female Department.
NATIONAL ORTHOPÆDIC HOSPITAL, Great Portland Street—Surgeon.
NEWCASTLE-UPON-TYNE HOSPITAL FOR DISEASES OF CHILDREN—Assistant-Physician.
NEWRY HOSPITAL—Medical Officer (Physician and Surgeon).
NORWICH DISPENSARY—Resident Medical Officer.
QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road—Medical Officer for In-patients.
ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN—Assistant to the extra Physicians.
ROYAL KENT DISPENSARY, Greenwich—Resident Medical Officer.
ROYAL SURREY COUNTY HOSPITAL, Guildford—Assistant Honorary Medical Officer.
ST. GEORGE (Hanover Square) DISPENSARY, Mount Street—Surgeon-Dentist.
ST. MARY, Islington—Dispenser.
SOUTH STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Physician; House-Surgeon; Dispenser.
SWANSEA HOSPITAL—Medical Officer for Out-patients.
WESTMINSTER GENERAL DISPENSARY, Gerrard Street, Soho—Honorary Physician.
WESTMINSTER HOSPITAL—Resident House-Surgeon.

[For Poor-law Vacancies see Poor-law Department.]

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*FOOT, Arthur Wynne, M.D., appointed Physician to the Meath Hospital, Dublin, vice Dr. Hudson, resigned.
MITCHELL, F., Esq., appointed Medical Officer for No. 4 District of the parish of St. Pancras.
WOOD, Robert A. W., Esq., appointed House-Surgeon to the Ladies' Charity and Lying-in Hospital, Liverpool.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

DEATHS.

COOTE, J. R., M.D., at Mallow, County Cork, lately.
HEMMING.—On April 4th, aged 28, of pulmonary hæmorrhage, Pinhorn Lawrence, second son of *William B. Hemming, Esq., of Norland Square.
TRISTRAM.—On April 6th, at Tunbridge Wells, after a short illness, Harriet Julia, wife of *Charles Trustram, Esq., Surgeon.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic Hospital, 2 P.M.

SATURDAY St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M.

TUESDAY.—Pathological Society of London, 8 P.M. The following specimens will be exhibited:—Dr. Murchison, Gall-stones followed by Pyæmia and Atrophy of the Liver. Drs. Murchison and Cayley, *Post Mortem* Appearances in a Case of Paralysis Agitans. Dr. Dickinson, On the Nature of the Renal Calculi in the Museums of London. Mr. H. Arnott, Soft Cancer of the Breast. Dr. Crisp, Aneurism of the Coronary Artery. Mr. Thomas Smith, Calcareous Degeneration of a Scirrhus Cancer of the Breast. Mr. Lawson, A Hand Skinned by an Accident with Machinery.

WEDNESDAY.—Hunterian Society. 7.30 P.M., Council Meeting. 8 P.M., Open Meeting.

THURSDAY.—Harveian Society of London, 8 P.M. Mr. Fairlie Clarke, "On the Arrest of Hæmorrhage, primary and secondary."—Linnæan Society.—Royal Society.—Chemical Society.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with *halfpenny* stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

J. D. R.—Yes; especially 2 and 3: but avoid tabular statements as much as possible.

THE four recently appointed assistant-surgeons of the hospital at Newcastle complain that they have nothing to do. The usual work of assistant-surgeons is to see out-patients. Here there are few or none to see—fortunately for the practitioners of the town, probably. We do not very clearly apprehend what is the hardship of these gentlemen; but, whatever it is, inquiry will follow a memorial which they have presented. The House Committee will, of course, consult the staff before coming to a resolution. In the absence of more definite information as to the real wishes of the assistant-surgeons, we are unable to express any opinion. The documents which we have received are very vague.

ASYLUMS FOR INEBRIATES.

T. J. C. (Torquay) has received what information we could obtain for him through the kindness of Dr. Dalrymple; but it is very difficult to know at present how to dispose of dipsomaniacs in a respectable position such as he describes. His patients, husband and wife, are drinking themselves to social and physical destruction; but really it is in vain to expect the proprietors of asylums to retain drunkards against their will, and we know not how to advise our correspondent until some such bill as that which Dr. Dalrymple has introduced becomes law.

MORTALITY OF AMBULANCES.

SIR,—I observe in your JOURNAL of April 1st an account of a "Tour through the Ambulances of Brussels and Paris," by Dr. Herbert Cooper. He mentions the percentage of deaths amongst the wounded in Brussels: *e.g.*, "In the ambulance in the Rue du Progrès they lost 40 out of 350 wounded"; and in the American ambulance, "10 only died out of 350 wounded." The above statements may lead some to think that these were the total number of deaths occurring amongst the wounded after a battle. I served two months as dresser in the English ambulance at Beaumont, near Sedan. From both these places, only the convalescents and those not very seriously wounded were sent to Brussels, and amongst these the percentage could not have been so large as amongst those left in the villages on the battle-field, and who were so seriously wounded as not to be able to bear the journey of above one hundred miles to Brussels, half of which distance we had to take them in open country carts. The true percentage I am unable to give, as we almost weekly sent large "evacuations" of wounded on to Brussels, where we lost sight of them, and kept the dying and the more serious cases in the villages on the battle-field, where all the chances of recovery were against them.

4, Crown Terrace, Aberdeen, April 4th, 1871. I am, etc., JAMES INGLIS.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. F. H. HEATHCOTE, not later than *Thursday*, twelve o'clock.

A CARD.

SIR,—The enclosed "morbid" specimen has, during the past few days, been distributed (pushed under the doors) in the poorer districts of Small Heath and Coventry Road in this town. Perhaps you will kindly assist Mr. Cooper by giving publicity to his card in the JOURNAL.

I am, etc., AN ASSOCIATE.

Birmingham, April 11th, 1871.

"Mr. Cooper, Surgeon, Coventry Road, Small Heath, issues Medical Tickets, which entitle the patient to fourteen days' attendance, at the surgery or otherwise. Midwifery fee, 10s. 6d. Surgery hours, from 8 till 10 in the morning, and 6 till 9 in the evening."

HOSPITAL FOR INFECTIOUS DISEASES.

SIR.—It is proposed to erect a hospital for infectious cases of disease in Cheltenham. May I ask you or your readers kindly to put me in the way of obtaining information as to the size, plan, working expense, etc., of any existing hospitals of the kind in England or elsewhere.

I am, etc.,

EDWARD T. WILSON, M.B.Oxon, F.R.C.P.

6, Montpellier Terrace, Cheltenham, April 12th, 1871.

In our number for February 4th, we published a translation from Virchow's *Archiv* of two papers by Dr. Hartsen and Professor Virchow on the question—Is it proper for consumptives to marry? Not only were the source acknowledged and the authors' names given, but their arguments were given throughout in the first person. The translation to which we were indebted was that of the *Philadelphia Medical Times*. The purely accidental omission of this secondary reference, for which we express our regret, has been made the subject of misrepresentation, which carries its own comment. We may remark that the omission of secondary references is a matter of constant occurrence in the pages of our critic. We observe three of our editorials—not translations—transferred without any acknowledgment to a number of the *Philadelphia Medical Reporter*, which reaches us this week; and three pages of a special report published by us, transferred without acknowledgment to the pages of a London medical contemporary. These are really offences, and are of a very different character from what is above referred to.

THE COMPLIMENTS OF THE SEASON.

THE "big gooseberry" of daily papers is replaced in the columns of a medical paper by a periodical warning to the Examiners of the College of Surgeons not to "bully" the candidates. The latest effusion appeared a week ago. It may not be inappropriate to recall the names of the alleged "bullies": Mr. Busk, Mr. Hancock, Mr. Partridge, Mr. Hilton, Mr. Cock, Mr. Adams, Mr. Lane, Mr. Le Gros Clark, Mr. Savory, and Mr. Curling.

GRADUATED CHLOROFORM BOTTLE.

SIR,—Will you allow me to correct an erroneous impression under which Mr. J. Astley Bloxam labours with regard to the graduated chloroform bottle? I fully believe that the idea was original with Mr. Bloxam, inasmuch that he was not aware that such a thing had been in existence previously; but it is due to Messrs. Maw, Son, and Thompson, of Aldersgate Street, to say that twelve months ago they made a graduated guttatum bottle for me, which I have had in use ever since; nor was the idea original even then, for about three years before that, I saw, with Mr. W. Stokes of Dublin, a similar bottle enclosed with an inhaler, in a neat case.

I am, etc.,

J. ALEXANDER ROSS, M.D.

North Staffordshire Infirmary, Hartshill, Stoke-upon-Trent, April 3rd, 1871.

FOREIGN DIPLOMAS.

SIR,—In your JOURNAL of the week before last, I noticed a letter commenting on some unqualified persons who are practising as medical men in this part of London. I was as much surprised as my brother practitioner seems to have been, to see that one of them had Dr. prefixed to his name on his door-plate, knowing, as I did, that he could not obtain any British diploma. As your correspondent observes, a degree has probably been obtained from some distinguished University over the water, which can be done without examination on paying a certain sum of money. If such practices are permitted by English law, how are the public, especially the poorer class, to distinguish between the quack and the educated physician or surgeon? Can anything be more galling to those who have spent both time and money in fitting themselves for the arduous and responsible duties of our profession than to be placed on an equality with persons who not only have no pretensions to the name of gentlemen, but who are grossly ignorant in medical science and often deficient in ordinary education? Yet such is unhappily the case; and unless some new Medical Act be forthcoming, we have no remedy. I am almost ashamed to add that there is a qualified practitioner who meets these men in consultation, and generally aids and abets them in their practices.

I am, etc.,

PHYSICIAN.

If agreeable to the gentleman who wrote on this subject before, I shall be glad to know his name, living, as I do, in the neighbourhood.

PHYSICIANS AND DOCTORS.

F. R. S. (Birmingham).—A Licentiate of any College of Physicians is entitled to style himself "Physician." It is not his right to be called or to title himself "Doctor," but he often is so called by courtesy. The King and Queen's College of Physicians, under its old charter of William and Mary, asserts the special right of conferring the title of Doctor on its Licentiates, as the Diploma of that College is worded—"We confer the degree, title, and qualification of Doctor of Medicine."

ROYAL COLLEGE OF SURGEONS.—The following were the questions on anatomy and physiology submitted to the candidates at the recent primary examinations for the diploma of membership of the College. 1. Describe the atlas and axis, with the articulations and ligaments connecting them with each other and with the occipital bone. 2. Describe the structures of the capillaries and veins, and the mechanism of the systemic capillary and venous circulation. 3. Give the origin, course, and distribution of the following nerves: (1) glossopharyngeal; (2) hypoglossal; (3) internal pudic. 4. What is meant by excitomotor action? Describe how the excitomotor circuit is completed, and give instances exemplifying this action in health and disease. 5. Give the dissection required to expose the internal mammary artery and its branches; noticing (but not otherwise describing) the parts brought into view or removed in the process. Then state the courses, relations, distribution, and anastomoses of the trunk and its branches. 6. Enumerate the various kinds of cartilage; give examples of each kind and a description of its minute structure and properties.

1st Mr. George Washington Evans (Fair View House, Reading) be now a member of the Royal College of Surgeons, as is stated on the title-page of a pamphlet *On the Antiseptic Treatment*, forwarded to us from more than one quarter, we think his conduct in publishing such a pamphlet deserves the attention of the Council of the College, and we have sent on two of the copies forwarded to us to the Secretary of the College. He announces that "if my treatment were universally known, tens of thousands of invalids would be saved from an untimely grave by its adoption"; further on, he states, "No chemists or others sell Dr. Evans's medicines. Dr. Evans prepares his own medicines and prescribes them." "The first physicians in London have not the conception of my antiseptic principles." "Until I discovered these truths, physicians grovelled in the dark." "Her Majesty's physician has adopted the antiseptic treatment." "The interest of medical men is to keep their patients to themselves, and they, therefore, are the last to acknowledge new-discovered truths for the benefit of invalids, *unless they monopolise the administration*; for the profession of medicine is a business dependent on money payments." These are a few choice flowers of speech from this pamphlet, of which the author describes himself in one place as Dr. Evans, and in another as belonging to the Royal College of Surgeons. There is a great appendix of "testimonials" from patients, and a prominent notice—"Two Shillings and Sixpence for a letter of advice or a letter requiring an answer."

VERBA MAGISTRI.

SIR,—A few years ago, when Dr. Bennett first broached his cruel and inane experiments on dogs in our JOURNAL, I replied thereto, and hoped to hear no more of such nonsense; but I see he is still determined to ride his hobby. What affinity is there between the constitution of the dog and that of man? or what affinity is there between the action of mercury on the liver of the healthy dog, and on that of man congested to twice or more its natural size? Of such cases, I have probably seen hundreds, which, but for the cholagogue effects of mercury must have ended in death. The prudent administration of blue pill emulges the organ of the poison, reducing it to its original size, and restoring it to its healthy action. Now what must be the state of a patient in such a condition in the hands of a man who ignores mercury, I leave to the consideration of my readers. As this may perhaps be my last communication, while my pen is in my hand, I think I can cite a few peculiarities in my constitution which may, at the least, amuse my *confrères*.

Born on the 14th of July, 1780, I was apprenticed to a surgeon here in 1795, where I have been ever since, with the exception of five years in London. I have invariably led a very temperate and active life, walking and riding on horseback, avoiding spirits, seldom taking more than two or three glasses of wine, and that only on high-days and holidays. My general beverage has been water and about a pint of mild ale daily, with tea or coffee at breakfast, and tea in the evening. I take no supper; for dinner, meat and vegetables, with not much of puddings or pies.

I will arrange the peculiarities of my constitution under three heads: the idiosyncrasy of my stomach; the idiosyncrasy of my pulse; the idiosyncrasy of my kidneys; which I will notice *seriatim*.

The stomach secretes hereditarily an excess of acid, which prevents indulgence in fruit, of which I am very fond; so that, when I do take it, unless I use about a table-spoonful of magnesia, I have cramps in my lower extremities. About a month ago, I began to think (but it proved that the wish was father to the thought) that my stomach had ceased to secrete its usual acid; and, being fond of cyder, I drank a goblet at each dinner for four consecutive days, and, on the fifth day, two goblets, all this time without my old enemy cramp; but, on the following night, my right foot was seized with the most lancinating pain, particularly in the great toe, and from the outer circle to the small toe. I met this by frequent doses of magnesia, and the following embrocation: R. Ammonii chlorid. ʒiiss; liquor ammoniæ acetatis ʒiv; spirit. rect. ʒi; aquæ camphor ʒiij. M. This stimulated the absorbents to take up all the effused liquid; and the foot is restored to its usual healthy state.

The pulse was always regular, but slow, never above 60 or below 50. For some years, I paid little or no attention to it; but a few years ago I was walking with a friend, when I was seized with a momentary vertigo, almost approaching to syncope, and perhaps should have fallen had I not caught hold of him. On feeling my pulse, it was only 36, but regular, and at this rate it has continued ever since—about 30 in the morning, and 36 at night. How to account for this state of my pulse I cannot tell, or whether its present state existed prior to the vertigo or not; but I have such attacks occasionally, and the pulse is unaltered.

The kidneys I found, a few years ago, would not tolerate my usual bodily exercise; for after a hard day's walking or riding, a slight hæmaturia showed itself, which induced me to give up riding wholly, and to walk very leisurely. The symptom disappeared; but, on my taking a six miles' walk the other day, it manifested itself again. The way I account for this is, that the natural protection of the kidneys from undue attrition is the suet, which in my case is probably diminished.

Under the above three categories, some pabulum for useful cogitation may be engendered; but be this as it may, and as this may be my last contribution, perhaps you will pardon me for a reverie or two.

I have ever been a book-worm in medical works. To the *Lancet* and the JOURNAL of our Association, I have contributed occasionally. Among the subjects of my papers, have been Lues Venerea, Small-pox, Cancer, Gout, Rheumatism, Congested Liver (functional and organic), Treatment of Puerperal Women, Strictures on Don Quixote on his ignoring of mercury, etc. I thank God for his merciful and manifold blessings to me; and I can say, with my illustrious relative, as he did of his aged mother—

"The soul's dark cottage, battered and decayed,
Lets in new light through chinks which time has made."

As small-pox is rife now, I will advert to something which occurred thereon during my apprenticeship in the year 1797. My master and I inoculated upwards of three hundred in one day after a three weeks' dieting and six doses of calomel, and only lost one person, and even he had not fair play; all the others passed through the disease beautifully. This proved the invaluable property of mercury. It is the antidote for lues, small-pox, congested liver, various skin-affections, etc.; indeed, to recount its virtues would be unnecessarily tedious.

Cow-pox, that inestimable blessing, has not had fair play, in my opinion; for, to my knowledge, proper attention to the founder's directions has not been observed, particularly in the form of the pock and the colour of the scab, which should be dark mahogany, the pock similar to that of small-pox, depressed in the centre, not conical; besides, I think it very questionable if lymph should be taken from revaccinated vesicles, which is much resorted to.

I have given my practice to my next-door neighbour, Mr. Godfrey, and am now as learning as ever; and what with reading our excellent JOURNAL, newspapers, serials, and that blessed *liber librorum*, master of my time, and doing all the

good that I conveniently can, I am quite happy, and preparing for an eternity of happiness.

Lastly, I would say to the British Medical Association—"Esto perpetua, et omnes medici Angliæ, Scotiæ, et Hiberniæ, sint hujus membra, uno sano et forti corpore."

'O fortunati nimium sua si bona norint.'

Hæc epistola scripta est propria manu, et sine conspicio.

Cleobury Mortimer, February 1871.

I am, etc.,

THOMAS POPE.

PAYMENT OF DISPENSARY SURGEONS.

THE following is an extract from a law recently enacted at the Hull and Sculcoates Dispensary. "The services of the physicians shall be gratuitous. The surgeons shall receive an annual payment of thirty guineas for their services, and have three months' notice from the Committee in case it is necessary to dispense with their services. The surgeons shall give the like notice to the Committee if they wish to terminate their engagements." A correspondent writes thereupon: "Will you favour me with your opinion? Is it fit and proper for the governors to offer such conditions to medical men? are surgeons acting wisely for the honour of their profession in accepting such terms?" It is difficult to give an opinion upon such data. We can see nothing contrary to honour in an arrangement to accept a stipend, which we think quite as honourable as that surgeons should give their services nominally gratuitously, but, as all lay governors well understand, and are careful to insist, really in exchange for the indirect advantages of a large field of practice, and the social and pecuniary benefits of being known to hold a public appointment. We are unable to judge whether the stipend is at all adequate; but it is probably better than nothing at all, which is the usual remuneration for dispensary work. We do not appreciate the distinction between the physicians and surgeons.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, March 25th; The New York Medical Record, March 30th; The Boston Medical and Surgical Journal, March 30th; The Madras Mail, Jan. 30th; The Shield, April 8th; The Philadelphia Medical Times, March 22nd; The Philadelphia Medical Independent, March 25th; The Scotsman, April 5th; The Newcastle Daily Journal, April 7th; The Yorkshire Post, April 6th; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Macleod, Glasgow; Dr. Joseph Mitchell, London; Mr. George F. Duffey, Malta; Mr. W. J. Harris, Worthing; F.R.S., Birmingham; The Secretary of the Harveian Society; Mr. H. K. Lewis, London; Mr. T. Ritchie, Otley; Dr. J. Young, Edinburgh; Mr. W. Mac Cormac, London; Mr. J. B. Curgenvin, London; Mr. F. Durham, London; Mr. W. B. Hemming, London; The Secretary of the London Institution; Mr. Dalrymple, M.P., Norwich; Rev. Dr. Haughton, Dublin; Dr. Ferrier, Aberdeen; Dr. Michael Foster, Huntingdon; Mr. James Inglis, Aberdeen; Dr. Macnamara, London; Mr. John Dix, Hull; Dr. Beales, Congleton; Dr. Woodward, Worcester; Dr. Procter, York; Mr. J. Warnock, Birmingham; Mr. G. F. Hodgson, Brighton; Mr. C. J. Jeaffreson, Newcastle-upon-Tyne; The Rev. Dean Cogan, Navan; Dr. J. D. Rendle, Clapham; The Secretary of the Pathological Society; Mr. Hawthorn, Newcastle-upon-Tyne; Dr. Robertson, Edinburgh; Dr. R. N. Willis, Dublin; Dr. Whytehead, Bilton, near Hull; Dr. Calvert Bradford, Manchester; Mr. T. Wall, Wigan; F.R.C.S.; Dr. J. J. Phillips, London; Mr. W. Ashurst, London; Mr. W. B. Holderness, Huntingdon; Mr. Berkeley Hill, London; Mr. H. Kettle, Birmingham; Dr. Wilson, Cheltenham; Mr. R. Mears, Atherstone; Dr. Meldon, Dublin; Dr. Stallard, London; Dr. Joseph Rogers, London; Dr. A. P. Stewart, London; Dr. Heywood Smith, London; Dr. Ross, Stoke-on-Trent; Dr. Hardic, Manchester; Dr. Wiltshire, London; etc.

LETTERS, ETC. (with enclosures), from:—

Dr. Falconer, Bath; Dr. S. J. Gee, London; Mr. Mallet, F.R.S., London; Dr. G. Oliver, Redcar; Dr. Polli, Verona; Dr. Kelly, Taunton; Dr. J. Crichton Browne, Wakefield; Dr. A. E. Sansom, London; Dr. James Neal, Birmingham; Mr. Leonard Armstrong, South Shields; Dr. Hugh Miller, Glasgow; Dr. Henry Simpson, Manchester; Mr. T. Spencer Wells, London; Dr. C. B. Taylor, Nottingham; Mr. Lawson Tait, Birmingham; Our Vienna Correspondent; Mr. W. K. Parker, London; Dr. Maurice G. Evans, Narberth; The Secretary of the Edinburgh Royal College of Surgeons; Dr. Waters, Chester; Dr. A. Meadows, London; Mr. St. George Mivart, London; Mr. W. D. Husband, York; Our Liverpool Correspondent; Dr. D. Toler T. Maunsell, Dublin; Dr. Alexander Fleming, Birmingham; An Associate, Birmingham; Our Dublin Correspondent; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Our Edinburgh Correspondent; Dr. J. Frank Payne, London; Mr. W. T. Grant, Wolverhampton; Mr. Jonathan Hutchinson, London; Dr. Struthers, Aberdeen; Mr. J. R. Armstrong, London; Dr. J. B. Gill, Dover; Mr. Erasmus Wilson, London; Mr. W. P. Swain, Devonport; Mr. H. Cripps Lawrence, London; Mr. T. W. Williams, Birmingham; Dr. T. L. Brunton, London; Sir James Alderson, London; Mr. Black, London; Dr. Wynn Williams, London; Mr. S. Chater, London; etc.

BOOKS, ETC., RECEIVED.

Clinical Report of the Rotunda Lying-in Hospital for the year ending November 5th, 1870. By George Johnston, M.D. Dublin: 1871.
Report of the Sanitary Condition of Leicester in 1870. By J. Wyatt Crane, M.D. Leicester: 1871.
The Twentieth Annual Report of the Wilts County Asylum, Devizes, for the year 1870. Devizes: 1871.
The Diseases of the Lungs. By Alexander Ross, M.D., Ch.M. Dublin: 1871.

LECTURES ON THE EXPERIMENTAL INVESTIGATION OF THE ACTION OF MEDICINES.

BY T. L. BRUNTON, M.D., D.Sc.,
Lecturer on Materia Medica at the Middlesex Hospital.

I.—THE STANDARD OF HEALTH.

Modes of Investigation.—Pathology.—Pharmacology.—Life.—Conditions of Health and Disease.—Effect of Drugs.—Direct and Indirect Action.—Local and Remote Action.—Dose.—Modification of Dose.—Cumulative Action.—Effect of Habit, Climate, Fasting.—Form of Administration.—Effect of Large and Small Doses.—Homœopathy.—Constitution and Idiosyncrasy.—Explanation of these from Experiments on Animals.—Connection of Chemical Constitution and Physiological Action.

GENTLEMEN,—The usual mode of investigating the action of a remedy is to give it to a patient during an illness and observe what changes occur in the symptoms after its administration. But it not unfrequently happens that medicines are given without any distinct change in the symptoms ensuing; and, even when one does take place, we very often cannot be sure that it is due to the medicine, and not to the course of the disease or some other modifying cause. For, if the remedy and the disease are both at work together, it is obviously impossible for us to decide what part of the result is due to the one and what part to the other, if we neither know what the course of the disease would have been had the medicine been given, nor what action the medicine would have had if the disease had not been present. Any attempt to investigate the action of a remedy by giving it under such circumstances is like that of a rifleman to learn shooting by practising only at dusk, when he cannot see the butt, much less the bull's eye. He might go on practising for ever in this way without making any improvement; for, when he missed, he would never know whether it was because he had not seen the mark properly or had not aimed steadily at it. If he wish to learn, he must practise by daylight, when he can clearly see the mark, and can thus be sure that every miss is due to unsteady aim. He will fire high or low, to one side or the other, as he finds necessary, and, by gradually correcting every error, his aim will at last be sure. Should he then be called on to stand sentry on some dark night, and shoot at some suspicious object without hitting it, he would know that his failure was due to his not having seen the object distinctly, and having consequently aimed in a wrong direction. And just as the rifleman, before he stands sentry in the dark, must learn to shoot by daylight, when he can note the effect of each alteration in the position of his rifle on the course of the bullet, so ought we to investigate the action of our remedies in circumstances and under conditions which we know and can vary at will, marking the effect of each variation upon their action till we thoroughly and exactly understand what it is, before we proceed to give them in disease, when not only the conditions under which they operate are at present in a great measure unknown, but the effects they produce cannot be definitely ascertained from insufficient knowledge of what the result would have been had they been withheld. Of late years, it is true, vigorous efforts have been made to determine what course diseases run when not interfered with by medicines; and, although it is often difficult to say what the sequence of symptoms will be in any particular case, depending as it does not only on the general course of the disease, but on individual peculiarities of the patient and on the varying circumstances in which he is placed, we may nevertheless ascertain with tolerable accuracy whether or not our treatment is beneficial in a general way, even when we cannot determine its effects in detail.

Very inexact and very unsatisfactory as such a knowledge of medicines as this necessarily is, it must for the present be our guide in practice in a large number of instances; and our treatment at present and for some time to come will be chiefly empirical, because our knowledge of pharmacology, and perhaps still more of pathology, is not yet sufficiently advanced. For there is hardly any disease in which we know the exact nature of the morbid changes which are occurring, or the precise organs or tissues which are their seats; and, with some exceptions, we are but very imperfectly acquainted with the structures on

which our remedies act, and the exact mode in which these are affected by them. Day by day, however, our ignorance is diminishing; and we may hope that ere long rational treatment will to a great extent supersede blind empiricism. It not unfrequently happens at present that we meet with a case which bears a very close resemblance to others which we have treated successfully, and which nevertheless obstinately resists the remedies which we had previously found serviceable. Our failure astonishes and vexes us; but we are ignorant of its cause, and we can only select some other drug by guess and try it: we cannot at once choose the one which will have the desired effect.

PATHOLOGY.—In order to choose a drug which will have the effect that we desire to obtain, we must know where the morbid changes are taking place, and what their nature is; and we must be sure that our medicine will act on the affected part, and in such a way as to counteract the disease. We must trace every symptom which we see, back to its unseen source; every flush on the cheek, every quickening of the pulse, back to the vaso-motor or cardiac nerves, which have allowed the capillaries to become dilated, and thus produced the redness, or have permitted the heart to beat more rapidly than its wont. We must then inquire what has produced this alteration in the nervous system, and so on, till at last we discover, if possible, the hidden cause of the mischief. We will then give that remedy which will act in the proper way on the part which we believe to be the seat of the morbid process; and, if the expected result does not ensue, we shall, at any rate, have discovered what the pathology of the disease is not; and, by trying a remedy which will act in a different way or on a different structure, we may find out what it really is.

When I speak of the pathology of a disease, I do not mean those obvious alterations in the structure of an organ which we meet with in *post mortem* examinations, but the so-called functional changes which precede and are the cause of both them and the symptoms. For example, the disorganisation of a man's liver by the presence of an abscess, or of his kidneys by fatty degeneration, is not the disease from which he suffered, any more than a field strewn with slain or crowded with heaps of wounded is a battle. The disease was the alteration in the nervous and vascular systems, and in the nutrition of tissues, which we call the inflammatory process, and which produced the abscess and degeneration, and the disturbance of the same systems to which these lesions in their turn give rise; just as an army may not only lose the battle for want of the assistance which its slain and wounded would have given, but its retreat may be embarrassed by their presence.

The insufficiency of present modes of treatment, and the urgent necessity which exists for an accurate knowledge of pathology and pharmacology, are shown by the manner in which any new remedy is seized upon and applied in all sorts of cases, even in those where a knowledge of the morbid processes going on, and of the action of the remedy itself would at once have indicated that harm, and not benefit, must ensue from its application. It is unnecessary to discuss here the manner in which pathology must be studied in order that an accurate knowledge of it may be obtained: I may merely indicate as examples the works of Cohnheim, Brown-Séquard, Sanderson, Stockvis, Stricker, and many others.

PHARMACOLOGY.—In studying pharmacology, our first object is to find out on what structures a remedy acts. For this purpose, it is of no use to give it to a man either sick or well. We may do so in order to find out what general symptoms it produces; and from these symptoms we may guess at the structures affected; but, in order to convert our hypothesis into certainty, we must apply it to these structures or organs, and to them alone, and see whether the general result is the same; or we may prevent it from reaching them while it is applied to all other parts of the body, and observe whether the effect is absent. For this purpose, we cut off from one or other parts of the body the supply of blood which carries the drug along with it, or we may so injure the part that its function is abolished, and no action exerted upon it can produce any effect. But it is impossible to do this in man, and so we must have recourse to the lower animals, in which we can produce at will the conditions we desire. Although the administration of medicine to a patient is really an experiment, we vary the conditions in which it acts to so much greater extent in animals, that it is convenient to call the latter mode of investigation the *experimental method*, and the former that of *clinical observation*.

Now pathology and pharmacology may go on hand in hand both in teaching and study, but they must always be preceded by physiology; for, unless we know the processes which take place in the healthy organism, it is impossible to understand the changes they undergo in disease, or the effect of drugs upon them. I will, therefore, here say a few words regarding the processes in which life consists, before proceeding to speak of the mode in which they may be modified by the action of remedies.

LIFE.—We meet with life only in certain bodies composed of carbon combined in a very complicated manner with oxygen, hydrogen, and nitrogen; and it may, generally speaking, be said to be the power which these bodies possess of assimilating to themselves other substances, of decomposing them, and of evolving energy, which is shown in active motion, active growth, etc. Evolution of energy in this way is the distinguishing mark of life. When we look at a grain of wheat, an egg, or a dried wheel-animalcule, we are unable to say whether or not it is alive; it is only when it begins to evolve energy, either by moulding other substances into conformity with its own constitution in active growth, as in the seed or egg, or by active motion, as in the animalcule, that we are able to decide the question. We cannot say how these bodies originally came to possess their complicated constitution and wonderful powers; but the evolution of energy by which we recognise the continued presence of life seems to be more intimately associated with chemical affinity than with other forms of energy, such as light, heat, or electricity. All these forms of energy modify the processes which occur in living beings, both those which are chemical and those which we term vital, and apparently in much the same degree; but whether they modify the vital only through the chemical, we are at present unable to say. Instances may readily be found in which life continues active, although one or other of the forces mentioned is not supplied to the living body from without, and is only secondarily present as a result of chemical changes going on within. Thus a seed in the earth, a fungus in a cellar, or a proteus in its dark cave, live and thrive without a ray of light; and the whale and walrus in the Arctic seas are independent of any external heat, their temperature being only maintained by combustion taking place within their own bodies. But there seems to be no instance of vitality alone continuing active when a stop has been put to the occurrence of chemical changes. Sometimes both chemical and vital processes are suspended together for a time, as in a grain of wheat or a rotifer when it is kept dry, or in an egg when kept cool and coated with varnish to exclude air. So long as chemical activity remains dormant, no other form of energy can awake the latent vitality. Only when the conditions necessary for chemical transformation of the proper kind and amount are supplied, does it again become manifest. Thus light or heat may be applied in any amount or any proportion to an egg, a seed, or a dried rotifer, and still they will not grow or move if the air be withheld from the former or the moisture from the two latter, which is essential for the production of chemical changes within them.

CONDITIONS OF HEALTH AND DISEASE.—These changes of which I have been speaking consist in the assimilation of certain substances, their decomposition within the organism, and the rejection of waste products. A due proportion between these constitutes health. Just as a fire can only be kept bright by raking out the ashes and supplying fresh fuel as that in the grate burns away, so an organism can only be kept healthy by removing the products of waste and supplying fresh nutriment as its tissues get decomposed during action. The conditions necessary for this purpose are secured in the simplest forms of life, such as the amoeba, by the little mass of protoplasm moving about in a fluid which can supply the oxygen to keep up combustion and evolve energy, and the nourishment necessary to replace the material thus used up, and can at the same time remove the products of waste. In higher organisms, the little masses of living material of which they are composed, and which are for the most part fixed, are nourished by a fluid in which they are bathed, fresh portions of it being supplied by its constantly flowing over them, instead of their moving like the amoeba through it.

It will simplify our conception of this subject if we fix in our mind's eye one little mass of protoplasm or cell, and consider what changes will be produced in it by different conditions. Any alteration in the amount of the nutrient fluid, or in its composition, will necessarily produce a change in the nutrition of the living matter to which it is supplied. If nutriment be withdrawn, the cell will begin to burn away. If oxygen be withheld, or the products of waste be not removed, combustion will cease, and the cell will die. If nutriment or oxygen be supplied in insufficient quantity, or the products of waste only partially removed, the cell may adapt itself to the altered circumstances, and its nutritive and functional processes go on in the same way, but to a less extent than before; or they may become deranged—that is to say, the cell becomes diseased. The limits within which the cell can adapt itself to changes in nutrition are the limits of its health. The higher animals, however, are no mere aggregation of cells, each nourishing itself independently of the others; for each cell has its own peculiar function, each its special kind and amount of nourishment; and none must do either too much or too little work, none must have too much or too little nourishment, or the nutrition and functional activity of the body as a whole cannot be properly main-

tained. This delicate adjustment of the several parts to one another is secured by means of the nervous system, which regulates at once the activity of any organ, the quantity of nutritive fluid supplied to it, and the amount of material it shall take up. The means by which it acts are, its direct influence on the nutrition of cells themselves, as is seen in the salivary glands; or its indirect action through the circulation in slowing or quickening the heart, which propels the blood, in contracting or dilating the vessels which convey it to any part, or the capillaries which allow the actual nutritive fluid or lymph to filter out and bathe the tissues. Besides thus regulating the supply, it also regulates the composition of the nutritive fluid by maintaining a due relation between the activity of the body, the supply of new material by digestion, and the separation of effete products by the excreting glands. On account of this mutual dependence of all the parts of the body on one another, if one gets wrong, it puts the others out of order. Thus a sudden chill may act on the vaso-motor nerves, and cause contraction of the vessels of the skin; and the blood they contain is thus thrown back on the internal vessels, and congestion and inflammation of the kidneys ensue. In consequence of this, they no longer excrete as they ought the effete products, which then accumulate in the blood, react on the nervous system, and this again on the muscles; and so the circle goes on. In the case supposed, the renal arteries have not had power to contract sufficiently to resist the increased pressure and prevent congestion; while in another they might have done so, only allowing so much blood to pass as to increase secretion, and, by thus lessening the fluid in the blood-vessels, to counteract the effect of vascular contraction in the skin, restore the normal pressure, and preserve health. When all the organs are able to accommodate their nutrition and function to great alterations, we say the health is strong; but when they can only do so to slight ones, we say the health is weak; and when this is the case with one organ alone, we say that it specially is weak.

EFFECT OF DRUGS.—The nutrition of a cell may not only be altered by changes in its supplies of nutriment and oxygen; but it may be modified or destroyed by the addition of certain substances to the nutrient fluid. Thus a weak solution of alkali may increase or diminish the rapidity of the changes which it undergoes, by hastening the removal of waste products if they be acid, or retarding it if they be alkaline; while a weak acid will have an opposite effect. Certain metallic salts may stop them altogether by forming a firm compound with the substance of the cell, while other bodies may enter into combination with it for a time (possibly replacing some ordinary ingredient of its nutriment), again passing out and leaving it in its primitive condition, but altering during their stay its physical characters and functional properties. Such seems to be the case with curare, which, when injected into the blood, paralyses the peripheral ends of motor nerves; but, if life be preserved by artificial respiration, the poison is excreted, and its effect passes off. No change can be noticed in the nerve-fibres, either by the naked eye or microscopically, during the paralysis; and this was supposed to show that great functional alterations may occur without any structural change. But this is not the case; for Kühne (Stricker's *Histology*, Power's translation, vol. i, p. 221) has ascertained that, when the ends of motor nerves in muscles are examined microscopically, their outline is found to be more distinct during the action of the poison. It is possible that the change in physical properties shown by this distinctness of outline may be only the indication of some more important alteration in their chemical composition; but, whether it be more chemical or physical, a change at any rate takes place; and to this, I believe, we must attribute the alteration in function.

Whatever be the composition of protoplasm, the substances which are associated with it in the composition of different cells are at any rate different; and, although the same nutritive fluid is supplied to them, they do not all take out from it, or give out to it the same substances in the same proportions, but some take up more of one thing, and some more of another. And they do just the same with drugs added to the nutritive fluid. Thus lime-salts naturally exist in the blood, and are carried by it to every part of the body; but, while the bone-cells take them up in large amount, nerve-cells assimilate an almost infinitesimal quantity. And if we feed an animal on madder, which has an affinity for lime-salts, the bones become deeply stained, while the nerves and fat retain their normal colour. It is possible, too, though experiments on this point are wanting, that a substance added to the nutritive fluid may be taken up by two structures, but may have a very different effect on the one from what it has on the other; just as a grain of sand, which would have no effect on the machinery of a locomotive, may totally stop the movements of a watch. We do not know whether sulphocyanide of potassium and curare are taken up equally by nerves and muscles or not; but the former salt will paralyse the muscles without affecting the nerves, while curare will paralyse the nerves, but leaves the muscles intact.

The cells composing one structure, then, take up and are acted on by some drugs, and not at all by others; while other structures are much affected by the very substances which had so little action on the first.

[To be continued.]

CLINICAL LECTURE

ON

THE USE OF THE LARYNGOSCOPE.

Delivered at the Manchester Royal Infirmary.

By HENRY SIMPSON, M.D.,

Physician to the Infirmary; Lecturer on Pathology at the Manchester Royal School of Medicine; etc.

GENTLEMEN,—Many of you have witnessed the use of the laryngoscope in my out-patients' room, and in the wards of this hospital. But as its use requires a certain amount of skill in manipulation, not all at once acquired, I think it is desirable to give you some general directions, which may clear up a few difficulties, and shorten the period required to render you its masters. It is scarcely necessary to say anything in the way of apology for so doing. The aid given by the laryngoscope in the diagnosis and treatment of disease is now acknowledged by all who know anything of the matter. No doubt there are practitioners still living who decry its merits, just as all means of physical diagnosis have in their turn been decried. Auscultation and percussion have almost, but even now not quite, emerged from this condition. The thermometer is not so generally used as it will be; and I have heard of an ophthalmic surgeon still living, who "does not believe in the ophthalmoscope." But if you meet with a case of hoarseness with partial loss of voice, as I have done, which has been treated for nineteen years in London and the provinces with internal medicines and external blisters, etc., and find, on looking into the larynx, that the supposed chronic laryngitis is due to a tumour attached to one of the vocal cords, you will learn to appreciate the value of the laryngoscope. Although its employment is at first a little difficult, and although some never acquire the dexterity of others, there is no reason whatever why it should remain in the hands of the few, or why it should not become the familiar companion of the many. And though there are valuable monographs and papers in our own language, such as Czermak's, translated for the New Sydenham Society, Dr. Morell Mackenzie's, Sir Duncan Gibb's, etc., besides numerous others in French and German, I am induced to give you, as students, some familiar and practical remarks on the mode and manner of its successful employment. And this for two reasons; one is that, while students, you will perhaps scarcely find time for the study of monographs on what some of you may consider a by-subject; and the other, that they are rather intended for the practitioner than for the student.

The history of the laryngoscope need not detain us. Like most other discoveries, it has had foreshadowings, some more distinct than others; but the claim of Dr. Babington, as being the first who used a laryngeal mirror at all resembling those now employed, is very strong. This was in 1829. Dr. Czermak, of Pesth, however, has done more than any one else to bring the instrument into general use. Without dwelling further on its history, which you will find in the monographs referred to, I will proceed to the more practical question as to the best mode of using the laryngoscope.

First of all, you require a lamp, for ordinary daylight is not sufficiently intense, sunlight is too rarely available, and moonlight—which Sir Duncan Gibb states that he has experimentally ascertained to be more suitable than daylight—is still less to be commanded. In towns and, indeed, in most villages, you have gas, which is the most convenient light you can obtain. An Argand burner is the best for our purpose. In the out-patients' room, we use an arrangement devised by Dr. Morell Mackenzie, consisting of a double arm, carrying an Argand burner, which can be raised and lowered by means of a rack, and also moved horizontally. The burner is provided with a metal chimney, which shuts in the light on all sides but one, where a plano-convex lens is placed to act as a concentrator of the light. In the wards, we use a German reading lamp with an Argand burner and Tobold's condenser. In my consulting room, I am in the habit of using a similar lamp with Dr. Mackenzie's portable light-concentrator, which you see here. There are various other concentrators in use, but you will find Mackenzie's or Tobold's sufficient for all your requirements. Mackenzie's

is portable, and by means of the side clips can be adapted to any lamp with a chimney of ordinary size, or even to a candlestick. It gives moreover a good light. Tobold's gives a somewhat whiter light, but is more bulky, and not so easily adapted to any but the reading lamp with upright stem. It could not be used, for example, with a moderator lamp, which answers extremely well for the laryngoscope, and to which Mackenzie's is perfectly suited. One great advantage of the reading-lamp is, that the upright stem allows of the light being raised and lowered. It is, moreover, always ready for its ordinary purpose when not required for special use. I saw a case in consultation the other day, where the gentleman in attendance on the patient brought a Bockett's lamp for the microscope, which answered sufficiently well for the laryngoscope.

You need, moreover, a reflector and a set of laryngeal mirrors, with one or two for examining the posterior nares. The reflector is a slightly concave circular mirror, about three inches and a half in diameter, sometimes perforated near the centre with an oval opening about half an inch long in the horizontal direction, and a quarter of an inch wide, and sometimes without perforation. This difference depends on whether you wear the mirror on the forehead or in front of the eye. If worn on the forehead, of course no aperture is required. There are various modes of fixing it, as by the forehead-band, the mouth-piece which Czermak at first used, and the strong spectacle-frame of Semeleder, which Dr. Morell Mackenzie and others use. Of these, the last is in my opinion the best. It is easier with this to fix the reflector quickly in the proper position, than with the forehead-band. The latter is elastic and very comfortable in use, but this elasticity itself renders the adjustment of the mirror a little troublesome. You place it as you think correctly, with a good light thrown in the right direction, but find that, on removing the hand, the mirror starts aside and requires a further adjustment.

Many skilled laryngoscopists, as Dr. G. Johnson, use the reflector on the forehead; but there are disadvantages in this position which do not obtain when it is worn in front of the eye. A very palpable one is that both eyes are exposed to the full glare of the concentrated light from the lamp. This is disagreeable and almost painful, and interferes much with our comfort in examining the larynx. To avoid this, some wear a shade, but this tends to complicate a simple matter, and make it look formidable, or at any rate fussy. There is, moreover, a theoretical objection to the position on the forehead, from the eye not being in the axis of the rays reflected into the throat. Without laying too much stress on this, I have myself a strong preference for the other position as a matter of comfort and convenience. Here, moreover, the line of vision and the rays from the reflector coincide. But a great practical advantage is, that both eyes are shaded from the glare of the lamp. If it be placed to the left of the patient, and the reflector before the observer's right eye, this is protected in consequence of the angle at which the rays from the lamp fall, and the reflector will be found, also, an efficient shade for the left eye likewise. The French are much in the habit of using direct illumination of the throat, and so of doing away with the reflector. But this apparent simplicity is really complex and troublesome. The lamp, provided with a lens, and having the side next the observer shaded, is placed on a small table between the observer and the patient. A good light is thrown into the throat, but the position of the physician is somewhat cramped by having an arm on each side of the lamp, and his face very near it. It is possible, indeed, to see the larynx with direct light not sufficiently powerful to be used with a reflector, but generally speaking the latter is preferable.

There is one mode of using it which has greater illuminating power than any other, and is admirably adapted for demonstrating the larynx. I refer to the oxy-hydrogen light, the use of which, by the courtesy of Dr. Mackenzie, I have had opportunities of seeing at the Hospital for Diseases of the Throat. As this, however, is only suited for special institutions, and not for private practice, we may pass on.

Assuming that you use the reflector, place the patient in a chair in front of you. The lamp must be on a table on one side. I prefer it on the left and near the patient's elbow, and I place the reflector in front of the right eye. The flame should be about the level of your eye, and the patient's head at the same height as your own. Now direct him to open his mouth, and so arrange the reflector as to throw a broad disk of light on the back of the fauces. You may find in your early trials that this brilliant light is a sort of will-o'-the-wisp, or *ignis fatuus*, and most apt to elude you when it seems securely fixed. The control of the light, indeed, is one of the most difficult of the preliminary acquirements necessary. A little practice, however, will enable you so to accommodate yourself to the slight movements of the patient, that you will soon be able to keep the light exactly where you wish. Now ask the patient to put out the tongue freely, but not uncomfortably, keeping the mouth well open. Then with the left hand,

guarded by a soft cloth, take good but gentle hold of a sufficient portion of the tip to have a firm grasp, and keep it steady in the protruded position. And here let me caution you as to a very obvious mode—but one at first apt to be forgotten—in which you may give pain to the patient and acquire a reputation for clumsiness. The attention being directed altogether to the obtaining a view of the larynx, you may not recollect the very sensitive member you are holding, and may pull it forward too forcibly, or press it down on the lower incisors. To avoid this, it is a safe habit to hold it between the first finger and thumb, using, of course, a small cloth, not only for the sake of delicacy, but because you would otherwise fail in securing it, and resting the back of the fingers against the chin. You can in this way not only avoid giving pain to the patient, but you have considerable control over the movements of the head.

You now come to the next step—the introduction of the laryngeal mirror. These mirrors are now generally circular, which is the most convenient form. Czermak used them square or lozenge-shaped, with rounded corners, at one of which the handle was fixed. They are of silvered glass, with the back and handles of German silver. The wire of which the latter consists should be strong enough to resist bending or pretty firm pressure. Wooden handles are provided into which the wire stem passes, and it can be fixed at various depths by means of a screw. The mirrors vary in size from a quarter of an inch to an inch and a quarter, but the most generally useful is one seven-eighths of an inch in diameter. The cases to which the various sizes are best adapted will readily suggest themselves. Large tonsils will, of course, prevent the use of a large mirror, and, as Dr. Mackenzie suggests, an oval one is most convenient. For purposes of demonstration, a large size is best suited, and, as you know, I frequently use in the hospital a handle which I have had made so curved as to prevent the hand from at all interfering with the view of those looking into the larynx from behind the observer.

The mirror of course needs warming, either with hot water or over the chimney of the lamp, in order that it may not be dimmed by the breath. It is, too, much more agreeable to have a warm than a cold mirror applied to the back of the throat. But you must never fail to test its warmth by applying it to the back of the hand or the cheek; for too hot a mirror is much more objectionable to the patient than one too cool.

Having, then, the mirror properly warmed, the lamp and reflector adjusted, the patient's mouth opened, and the tongue carefully held, pass the mirror to the back of the mouth. Now, much of your success will depend on the dexterity or clumsiness with which you perform this little manoeuvre. Take the handle as you would a pen, and pass it between the tongue and palate, with the reflecting surface to the former, so as to avoid touching either. On arriving at the soft palate, let the back of the mirror slide down till it covers the uvula, and gently press the soft palate and uvula upwards and backwards. This movement must not be made hurriedly, but so gently that you can at once stop when the larynx comes into view. It will at first, perhaps, be a little difficult to get the mirror at the proper angle for showing the larynx; but practice will soon enable you to accomplish this almost instinctively. As I said before, this proceeding must be managed without haste, but quietly and steadily, as if it were a matter of course. If so done, it will be quickly done. Nothing is so likely to disturb a nervous patient, and to render the examination difficult, as slowness and bungling on your part. There are all degrees of excellence, or the reverse, in the way in which a laryngoscopic examination is borne. You will not unfrequently find that the approach of the mirror to the mouth is a signal for the violent withdrawal of the tongue; or that, when you have succeeded in placing it at the back of the mouth, the patient seems determined to swallow it. Very often the fault will be in some hasty incautious movement of your own, by which the back of the pharynx is touched. Sometimes, however, it arises from the timidity of the patient. In this case, a word or two of encouragement, or a simple explanation of what you are going to do, will remove the difficulty; but now and then a firm direction to keep the tongue out will answer better. A little tact will soon enable you to distinguish the various temperaments with which you have to deal; and you will almost intuitively vary your proceedings accordingly.

The point incidentally mentioned—not to press the mirror against the back of the pharynx, either directly or with the uvula intervening—is important. If you do, spasm is almost sure to be excited, which not only renders your chance of seeing the larynx at that sitting more remote, but produces congestion of its lining membrane, and so a departure from its true condition at the time. In some patients, the throat is much more irritable than in others; and various plans have been tried for the purpose of lessening this irritability. Sir D. Gibb gives large doses of bromide of ammonium to lessen the spasmodic

condition of the muscles, and speaks well also of a gargle containing it as producing moderate anæsthesia. Dr. Mackenzie, speaking of the bromides of potassium and ammonium, says that his "experience has proved the total inutility of their employment". He recommends the sucking of ice for ten minutes before the mirror is to be introduced. Generally, however, care and patience will enable you to do without either of these aids. Do not keep the mirror too long in the mouth. Carry out all the necessary movements quietly and gently, but without hesitation; and do everything with a "light hand". Generally, you will have no difficulty in seeing the larynx at the first attempt; but, if the patient be nervous, pass the mirror to the back of the mouth for a moment, and withdraw it again, asking if you gave any pain. Although you may previously tell them that the proceeding is painless, patients will not always give you credence; but, if their fears are allayed, the difficulties of the examination are much lessened. In nervous persons, or where the throat is at all irritable, be sure to keep the mirror in the mouth as short a time as possible. Always withdraw it at once, if signs of approaching spasm show themselves. Some patients contract the fauces so much that it is almost impossible to see anything; perhaps the tip of the epiglottis may be visible. In this case, get them to breathe entirely through the mouth, and to take the breath in, so to speak, as far back as possible, so as to open the upper part of the pharynx.

Now and then you will be perplexed by a long uvula projecting forwards under the lower edge of the mirror, and showing its reflection there; but a larger mirror will often enable you to avoid this annoyance. A pendulous epiglottis is one of the most serious difficulties you will meet with, and it sometimes renders it impossible to get a satisfactory view of the larynx. You may try to put the mirror lower in the throat, but perhaps will only just see the arytenoid cartilages. Sir D. Gibb estimates that it occurs in 11 per cent. of people in health. Various attempts have been made to raise the epiglottis by forceps, etc.; but they are not of much practical utility. The most readily available plan, and one that succeeds sometimes fairly, is to take advantage of the physiological action which occurs in the production of the highest notes of the voice. In his able and interesting inaugural thesis on the Physiology of the Larynx, Dr. Wyllie describes what occurs as follows. "In the highest notes of the voice, the larynx is raised as in deglutition; but . . . the os hyoides is pulled further forwards by the genio-hyoid muscles, so that the point of the pomum Adami engages itself behind the hyoid bone, instead of merely impinging upon it. The hyo-epiglottic ligament is thus put upon the stretch. In like manner the glosso-epiglottic is pulled upon by the muscles of the tongue. . . . The epiglottis is drawn forwards upon the base of the tongue." Of course this description refers to the normal erect or nearly erect position of the epiglottis; and, when abnormally pendulous, it will not be drawn forwards so completely, but still in these cases it will often help you very considerably to get the patient to produce as high a note as he is capable of doing.

Supposing, however, that you have introduced the mirror, and succeeded in throwing the light into the mouth, you will at first perhaps see little but the back of the tongue; but, by slightly altering the angle of the mirror, the epiglottis will come into view. In favourable cases, you will see its laryngeal surface with a cushiony prominence at its base. At the opposite side of the picture, as it were, you will see the arytenoid cartilages, with the vocal cords passing forwards or apparently backwards; for, of course, in the mirror the position of the various parts is transposed antero-posteriorly. They are pale or pearly white in colour, with a glistening surface, vary slightly in width in different individuals and in different states of the larynx, and look like two whitish ribands limiting the glottis on either side. Their position varies according to the action going on in the larynx at the time. In quiet inspiration, the glottis is seen as a triangular opening, the anterior ends of the cords being approximated at their origin in the depression of the thyroid cartilage, and their posterior attachment to the processes at the base of the arytenoids being widely separated. During vocalisation, they approach each other very closely, and so become nearly parallel along the greater part of their length. But you will often see the glottis assuming an oval or lozenge shape, and varying rapidly in form during the examination.

The arytenoid cartilages are somewhat variable in size and distinctness, but are easily recognised. In the fold of mucous membrane passing from them to the epiglottis, the ary-epiglottidean folds, as Dr. Mackenzie abbreviates the term, and near the cartilages, you may sometimes see the small round cartilages of Wrisberg; but frequently they are not visible. Sir D. Gibb says that they are much more prominent in the negro than in the white. The sloping surface extending from the edges of these folds to the vocal cords forms the roof of the ventricle of the larynx; and the portion immediately above the slit-

like opening of the ventricle is called the false cord or ventricular band by Dr. Mackenzie, and the regulator of the glottis by Sir D. Gibb.

You should make yourselves familiar with the appearances of the healthy larynx, with its form and the movements of its various parts, and with the colour of its healthy mucous membrane. We will not to-day enter on the appearances produced by disease; but they consist of the changes of colour and form produced by congestion and inflammatory action and its results, and other causes; of loss of substance; of new growths; and of interference with the normal movements.

And rest assured, gentlemen, that you will not regret some time and attention devoted to the subject of laryngeal disease. It is too apt to be considered a specialism; but you will find abundant opportunities of proving it eminently useful in your daily practice.

TRUE AND FALSE ANEURISM OF THE ABDOMINAL AORTA; RUPTURE OF THE FALSE ANEURISM AND EFFUSION INTO THE SUBPERITONEAL SPACE; DEATH ON THE TWELFTH DAY.

By JAMES NEAL, M.D.,

Honorary Surgeon to the Lying-in-Charity, Birmingham.

J. G., aged 36, married, an electro-plater, came under my care Oct. 15, 1869. He had been ailing three or four years with severe pains in the back and left hip, and was treated for sciatica. When I saw him, he was much reduced and suffering from violent paroxysmal pains in the left hip, just above the sciatic notch, and affecting branches of the anterior crural nerve. There was also (at times) partial numbness of the left thigh. The attacks were worse about 8 P.M. and 4 A.M. He had a good deal of lumbar pain, and thought that his kidneys were affected. He had also internal pains of a cramping or spasmodic character, was anæmic and dyspeptic, and suffered much from palpitation. His urine was scanty and high coloured, and voided with difficulty. His bowels were costive, and great pain and prostration had lately followed defæcation; pulse 120, feeble. A careful examination detected no disease of the chest. I treated him for neuralgia, but without success. On Sunday, October 24th, I was hurriedly summoned to him at noon. He was said to be much worse. He had had an unusually severe attack the evening before, but had afterwards taken a morphia draught and slept well for three or four hours. About 4 A.M. another very severe attack came on, which he described as beginning at the heart with palpitation, and extending all down the left side; he spoke of it as a "tearing" or "burning" pain. It was followed by great faintness and prostration. When I saw him he was pale and anxious in appearance, and was just recovering from the attack. The pulse was 140, weak and fluttering. On examining his abdomen, I found that it was swollen and tense, with a distinct projection across the epigastric and hypochondriac regions. This swelling was dull on percussion, and pulsated vigorously—a violent heaving impulse—which spread all over the abdomen. All down the left side the abdomen was dull, both front and back, and tender to the touch; the tenderness being most marked just above the crest of the ilium. The dullness terminated by a distinct border in front, perceptible to the touch. Pulsation could be felt behind as well as in front. The front and right side of the abdomen below the liver were resonant on percussion. There was no bruit or *frémissement*; no sickness. I diagnosed an aneurism which had suddenly burst, so that a large quantity of blood was effused into or behind the peritoneal cavity. Dr. Russell saw him with me in about half-an-hour, and confirmed the diagnosis. He thought that the prominence across the epigastrium was the liver thrust forwards by an accumulation of blood behind it—in the subperitoneal space. The treatment was as follows. Perfect rest and quietude were enjoined; bladders filled with ice were ordered to be constantly applied; and a mixture of dilute sulphuric acid and tincture of opium in acid infusion of roses was prescribed.

On being questioned next day, the patient stated that he remembered straining his back badly about two years and a half previously, in lifting a heavy weight, since which time he had suffered a good deal in his back. Up till quite recently he had been in the habit of lifting heavy packages of goods, but a good deal of prostration always followed such exertions.

For the first two or three days there was great prostration, with tympanitis, local tenderness, and numbness of the left leg. He was kept well under the influence of opium, and, in the course of a few days, these symptoms subsided, and he appeared much better.

At 2 A.M., Nov. 4th, my partner, Mr. Garner, was hurriedly fetched

to him. He found him in a state of great prostration, with feeble fluttering pulse, and evidently sinking beyond hope of recovery. He had had an attack of severe pain the evening before similar to the one before Sunday the 24th of October. Stimulants were administered, but he gradually became weaker, and died at 11 o'clock the same morning, the twelfth day after the rupture of the aneurism.

Post-mortem examination.—On opening the abdomen, recent coagula were found loose in its cavity, to the amount of eight ounces. A large fibrinous clot formed a prominent tumour occupying the epigastric and left hypochondriac regions, and extending down the left side of the abdomen as far as the iliac fossa, where it seemed to terminate in a rounded border. It was entirely behind the peritoneum. It measured from above downwards eleven inches, its breadth at its upper and wider part was over seven inches; it had thrust up the liver to the right, folding up its left lobe. The stomach lay in front. The convex surface of the liver was pushed up to a level with the upper border of the fourth rib on the right, and the spleen to a level with the fifth rib on the left side. The pancreas crossed the tumour obliquely at its upper and anterior part, and the descending colon coursed along its surface, being flattened by it against the front wall of the abdomen. A coil of small intestine (probably the duodenum, where it merges into the jejunum) seemed to run into the centre of the clot. Where the tumour was rounded off at the iliac fossa, an appendage was found to extend beneath the iliac fascia, and was probably arrested only by the anatomical attachments of that fascia. The coagulum was firm, and of the consistence and aspect of the spleen, and so closely attached posteriorly, that it was difficult to remove it. The thorax having been opened, the aorta was dissected from the spine from above downwards, and thus the tumour was removed *en masse*. The attachments became very firm opposite the sixth dorsal vertebra, and here an opening was discovered leading into a large aneurismal sac. After removing the sac and clot together, the bodies of the last four dorsal and first lumbar vertebrae were found to be much eroded, especially the tenth and eleventh dorsal vertebrae—the bodies having suffered more than the intervertebral cartilages. Only a thin layer of bone intervened between the tumour and the spinal canal. The mass when separated weighed 8½ lbs. On laying open the aorta there was found (near the origin of the coeliac axis) a smooth and rounded aperture on its right side, three inches in diameter when closed, but which readily admitted four fingers. This aperture led to a large sac of a *true* aneurism, of capacity to admit a man's fist, with smooth walls, and quite empty. On the left side of the aorta, by the opening discovered on dissecting it from the spine, the hand was readily admitted into the sac of a large *false* aneurism of the size of a foetal head. It contained a loose dry mass of fibrine. It was formed in front by the surrounding tissues, behind by the eroded bodies of the vertebrae, and was evidently the source of the extravasated blood. The transverse diameter of these two aneurisms was seven inches; the vertical, four inches and a half. There was no degeneration of the arterial coats in the neighbourhood of the sacs. All the organs of the body were healthy, except the heart, which showed well marked concentric hypertrophy of the left ventricle, which was contracted and empty.

On dissection of the mass, the left kidney, surrounded by its serous envelope, was found embedded in the lower part of the clot, near the front. It was surrounded by a layer of coagulum an inch or more in thickness. The appearance of small intestine running into the centre of the tumour proved to be fallacious; it was bent upon itself, and coursed backwards and upwards on the surface of the tumour, and closely adherent to it, to join the pylorus. It was with difficulty dissected off, and was nearly or quite empty. The pancreas was firmly adherent to the mass. The bulk of the mass consisted of the walls of the aneurismal sacs. Those of the false aneurism were several inches thick, and composed of concentric layers of fibrine, and covered in front with peritoneum. The extravasation had evidently taken place by a ragged opening directly in front. The structure of the upper part of the sac was much firmer than where it had given way.

REMARKS.—The case is interesting as a well marked instance of true and false aneurism of the abdominal aorta in the same subject. I have Dr. Stokes's authority for the statement that "true aneurism of the abdominal aorta is of rare occurrence". When fresh, the specimen was much more illustrative.* The length of time the patient survived the rupture (twelve days) is worthy of note. Of fourteen cases mentioned by Dr. Stokes, only one exceeded this time. The history of this case (No. 78 of the series) presents many points of similarity with the one I have recorded. The first effusion appears to have occurred more gradually, and the patient died on the twentieth day after admis-

* The case was brought before the members of the Pathological Section of the Birmingham Branch of the Association, at the meeting held Nov. 26th, 1869.

sion into the Meath Hospital. In eight of the cases, death was sudden. The others varied from half an hour to three or four days. The largest definite quantity of blood mentioned is three pounds.

RECOLLECTIONS OF THE MEDICAL SCHOOL OF VIENNA.

By J. F. PAYNE, M.B.Oxon; late Radcliffe Travelling Fellow.

III.

THE arrangements for the study of anatomy and physiology at Vienna ought not to go unnoticed. These departments are by no means so well lodged as pathological anatomy; they are taught in a large building which was formerly an artillery factory, which has no conveniences or advantages beside its size. It is fair to say that these arrangements are regarded as temporary, and only intended to continue till the long-promised University buildings are ready. In this building are given the lectures of Professor Hyrtl, an unsurpassed teacher of anatomy, whose lectures have only to be heard to refute once for all the notion that anatomical lectures are useless. Hyrtl is a marvellous injector, and sent some remarkable preparations to the London and Paris exhibitions. Professor Brücke, the physiologist, is a Prussian by birth, and has, perhaps, the largest class and the most inconvenient lecture-room in Vienna. So inadequate is the latter, that there are more tickets issued than there are places for the hearers. Professor Brücke pays, perhaps, more attention to histology than to physiology proper, but the amount of lecturing he gets through would astonish a London or Oxford professor. Five lectures a week through the whole of the winter and the summer sessions are the regular amount, and there are often extra courses. In the same building is the histological laboratory of Professor Wedl, author of *Pathological Histology*, a most laborious and accurate observer, who is very cordial towards our countrymen. Histology is, in fact, very strongly represented in Vienna. There are other laboratories beside those which we have mentioned, where practical instruction is given; and, as several of the teachers speak English perfectly, want of acquaintance with the German language need be no bar to profiting by their instructions. Experimental physiology is less studied in Vienna since the departure of Ludwig, formerly professor at the Josephinum or Military Medical School, now head of the magnificent Physiological Institute at Leipzig; but the projected new University buildings will probably provide a suitable locality for this as for other now neglected studies.

As we said before, one of the main attractions of Vienna will always be the arrangements for the study of special branches of medicine and surgery; we may therefore run over the names of some of the more popular teachers of these branches. That for which Vienna has, perhaps, won the greatest reputation of late years, is the treatment of skin-diseases, especially as practised by the ingenious and humorous Professor Hebra. Originally a pupil of Skoda (and also of Bohemian birth), he was encouraged by his teacher to devote himself to the study of skin-diseases. How well he has justified the wisdom of this advice, is a matter of European notoriety; how amusing his lectures are, one must go to Vienna to know. In his most valuable clinique, there are few who do not learn, but perhaps fewer who do not laugh. The peculiarities of manner, costume, and character, of the Vienna patients, give endless opportunities for the humour of the professor; but, although he is certainly unflinching in the application of painful remedies, it cannot be said that he is really deficient in consideration for the poor and suffering. Some of his stories ought to be classical. A stalwart patient, who appeared in the middle of summer, once gave a remarkable extension to the phrase "out of work." Being asked how he could be out of work at this season of the year, when it was almost harvest-time, he replied that his only occupation was "snow-shovelling", or clearing the streets after a fall of snow, so that he really had very seldom anything to do! Professor Hebra is very severe on the French dermatologists, and fond of a little more good-natured chaff at the expense of the English. His favourite *mot* about the Skin-Hospital in Blackfriars Road, is that, though the name "Hospital" is put up in very large letters, it is really "no hospital at all, but only a *colossales ambulatorium*."*

Hebra's lecture-room is a kind of little amphitheatre, the patients being marched round the central area for inspection. The lecture lasts some two hours, and is quite distinct from the regular visit, or prescribing for out-patients, so that the whole time can be given to

demonstration. As is well known, the Vienna professor gives great prominence to local treatment, neglecting, comparatively, constitutional remedies; and for this reason it is absolutely necessary to see his practice, in order to pass any judgment upon it. For in these matters it is most emphatically true, "whatever's best administered is best", and the details of management are really the gist of the whole matter. To attempt to apply "Hebra's treatment" without the skilled assistance, or the baths and other appliances, which are at present almost entirely wanting in London, is really not to apply it at all. We must not call two things by the same name. To present an ignorant patient with a mass of ointment or a bottle of lotion, is one thing; to apply these remedies systematically and carefully, is something entirely different, and it is absurd to expect the same results from the two.

There are other cliniques for skin-diseases in Vienna beside that of Hebra; and the lectures of Dr. Neumann, Privat-docent in the University, should be especially mentioned. Dr. Neumann, in his excellent *Manual of Skin-Diseases*, has for the first time given a clear account of the anatomical changes in these diseases, on the basis of modern pathological histology. For those who are drawn to other specialities, there is no lack of material for observation, or of teachers. In ophthalmic surgery, the names of Arlt and Jäger; in aural surgery, of Gruber and Politzer, are well known. In syphilis and venereal diseases, there are two very highly esteemed teachers—Professor Sigmund, who has charge of this department in the General Hospital, and Professor Zeissl, the author of a manual well known in Germany. Both, we may say, are decided supporters of the "dualist" theory. For the diseases of children, there is a charming little hospital, the St. Anne, where clinical lectures are given by Dr. Widerhofer. The Foundling Hospital presents, also, an immense field for the observation of infantile maladies, and there, also, clinical instruction is given. In obstetrics, the Hospital at Vienna has achieved an undeniable reputation; and the large number of births constantly taking place supply opportunities for study and practice which cannot be got in our own country without a very great expenditure of time and trouble. Well qualified students, also, have the advantage of being often able to perform important obstetric operations themselves, under proper guidance. It would be tedious to go through the list of special teachers, which would be a very long one; but we must not omit to mention one special and very interesting department of study for which remarkable facilities exist—namely, morbid conditions of the brain. A lunatic asylum exists in close proximity to the General Hospital, and the autopsies of patients dying there are conducted in the Pathological Institute by Dr. Meynert, well known for his brilliant researches on the structure of the brain. Dr. Meynert occasionally gives a course of lectures and demonstrations on the morbid conditions of the nervous centres, of which it is not enough to say that it is unrivalled, since it is probably unique in Europe.

In conclusion, we must say a word in answer to an obvious question which will probably occur to many readers: Why should we go so far in search of instruction in these subjects, when so many specialists and special hospitals exist at home? Is not London a sufficiently large field? The answer to this objection is certainly not that there are more patients or more remarkable cases in Vienna, since a population of three millions must supply more medical curiosities than one of half a million; nor yet that our physicians and surgeons are inferior in skill, for many in London are acknowledged to stand in the first rank in their respective lines of practice; but the simple fact is, that in Vienna these subjects are *taught*; in London they are, comparatively, not taught. There is all the difference between assisted and unassisted study. A visitor to the special hospitals, or special departments of hospitals in London, may learn much by using his eyes, and occasionally pick up a hint or two from the medical officer; but the latter seldom has the time or opportunities for, and therefore never acquires the habit of, serious teaching. It is not primarily his own fault. In the first place, he has far too many patients, and the managers or governors are anxious rather to swell the total number of patients receiving relief, and thus make out a strong case to the public, than to show their staff much consideration in this particular. In the next place, he has generally other irons in the fire, and is due at some other hospital three or four miles off, the moment he can get away; and, finally, the custom of teaching never having been formed, there is no class of students desirous to learn. This last difficulty certainly strikes us as the most formidable, and were there any demand, probably the others might soon be overcome by assigning a special hour to instruction, as is done in Vienna; but why there is no demand, and whether this depends on the absence of a supply of instruction, we cannot now inquire. One thing only must, in fairness, be mentioned: that the special courses of instruction in Germany (and notably those very valuable courses given by assistants and demonstrators) are supported in great measure by foreigners, especially by Americans and Russians, though also by gradu-

* The Germans quaintly call out-patients "ambulants", as being able to walk; and an institution or department for out-patients, an ambulatorium. The name hospital resupposes in-patients.

ated students from other German Universities. The ordinary undergraduate student has, as with us, but little time for extra courses, so that the supply of more advanced special instruction is closely connected with the attractiveness of the school as a whole, which causes it to be visited by learners from a distance, who have already acquired their necessary qualifications. It would be impossible here to discuss the question how such an attractiveness is to be given to the schools of London.

LARGE FLUCTUATING ABDOMINAL SWELLING: RAPID DISAPPEARANCE, WITH EXCESSIVE URINARY DISCHARGE.

By WILLIAM R. LANE, Esq., Surgeon Second Battalion
Grenadier Guards.

CORPORAL —, of the Second Battalion Grenadier Guards, was brought to hospital in a cab on December 28th, 1869, at 11.30 P.M. He was on leave, and had fallen down a flight of stairs. On admission, he complained of pain over the crest of the ilium of the right side, the skin over which was slightly discoloured from bruising. There were also pain and tenderness over the region of the bladder. The tongue was white and loaded; the pulse full and rapid. The bowels were constipated. He was ordered to have three grains of calomel immediately, and a dose of castor-oil in four hours.

On December 31st, three days after admission, he was attacked with severe pain and tenderness in the region of the right kidney. He passed a large quantity of blood with the urine. The pulse was very small and rapid. He was ordered to have a grain of powdered opium three times a day. From this date to January 8th, eleven days after admission, the blood in the urine gradually diminished; but on the 10th he complained of a return of pain in the back; and, on examination, there was found enlargement with extensive dulness over the hepatic region. The enlargement gradually increased, distending the right hypochondriac, epigastric, right lumbar, and iliac regions; and, from the swelling pressing upwards on the lung, breathing was much impeded. Fluctuation was distinctly discovered at the back; there was every appearance of a large abscess forming and pointing posteriorly just below the floating rib, and the fluid felt very superficial. Matters remained very much in the same state up to March 1st, and it was then decided that on the following day an exploring needle should be used. On paying my visit to the hospital on the 2nd, the patient said that he felt very much better; and I was surprised to find that all the swelling had entirely disappeared, and that nothing but redness of the skin remained. He stated that the swelling gradually began to subside after I had seen him the day before, and that he passed during the day and night upwards of six quarts of urine. Convalescence was very rapid; and on March 18th he was discharged from hospital perfectly recovered, and has ever since done the whole of his duty.

What was the swelling? and how was it produced? At first it was taken for a large abscess of the liver; but, considering the rapidity with which it disappeared, and the absence of pus in the enormous quantity of urine which passed concurrently with its subsidence, this supposition must have been incorrect. It could not have been urine from rupture of the kidney, or there would have been the symptoms of extravasation of urine—viz., inflammation, suppuration, and sloughing. If it were serum, how did it find its way so rapidly into the bladder? The rupture of large cysts into the peritoneal cavity, and the passing off of their contents by the kidneys after absorption, are not very uncommon, especially in females from rupture of an ovarian cyst. Could this have been an urinary cyst, the urine being deprived of its irritating qualities by the cyst-wall while resident in it? If so, the rupture of the cyst into the peritoneal cavity will account for its disappearance and the enormous quantity of urine passed. The case is so obscure, that I scarcely like to venture a theory to account for it.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE IX.—Wednesday, March 8th.

THE Pinnipedia or Aquatic Carnivora are mainly distinguished by the characters of their limbs, which are organised for swimming. The incisors have not the ordinary formula $\frac{3}{3}$, but vary much. The canines are large and well developed. The molars differ from those of other

Carnivora, being very uniform in character, and never having more than two roots. Their crowns are always compressed and more or less pointed, and may have some little accessory tubercles. None of the teeth presents sectorial characters. There are usually five molar teeth above, and the same number below, on each side. The Pinnipedia are divided into several families; viz., Otariidæ, Phocidæ, and Trichechinæ.

The Otariidæ comprehend about twelve species, of which the Sea Lion or Sea Bear (Otaria) is an example. In this animal, the hind limbs are more adapted for walking than those of the Seal; and small external ears are present. There are three incisors in the upper jaw, and two in the lower, on each side. The middle incisors are the smallest; the upper outer ones are very large. Each upper central incisor is divided by a deep groove into an anterior and a posterior cusp. The two lower incisors do not differ much in size; in the young animal, they appear to be lobed in a different direction from the upper teeth. The canines are large and recurved. There are generally five teeth of the molar series, of which the second, third, and fourth are preceded by milk-teeth; the first has no predecessor, nor has the fifth (the true molar). The roots are simple, often connate. The milk-teeth appear at an early period, and are mostly shed before birth. The permanent teeth, in the Otaria and the true Seals, appear to come up at about the same time. In an Otaria about a fortnight old, the milk-canines only were present; a few months later, all traces of the milk-dentition were gone, and several crowns of the permanent teeth had appeared above the surface. In the old animal, the canines become greatly developed through the growth of the roots, and wear away. It is the Otaria that furnishes the article used for clothing known as "sealskin". In another form of Otaria from Behring's Straits, the last molar is separated from the others by an interval. Some Otariidæ have six molars on each side in the upper jaw.

The Phocidæ or true Seals comprehend three groups—Phocinæ, Stenorhynchinæ, and Cystophoridæ. In the Phocinæ, the dental formula is $i \frac{3}{2}, c \frac{1}{1}, p \frac{4}{4}, m \frac{1}{1}$. The upper incisors are sharp and curved backwards, the outer ones being the largest. The canine is large and curved backwards. The molars are all alike; each has a small cingulum, and, except the first, two roots. The crown has a main cusp, with small ones before and behind. The milk-dentition is perhaps even more rudimentary than in the Otaria. In a new-born Seal (Phoca) at the Zoological Gardens, the tops of the permanent teeth were all on a level with the alveolar ridge, and the milk-teeth were nearly absorbed. At an earlier stage, the milk-molars have two roots. In a Seal a week old, scarcely a trace of the milk-teeth was left. In the Phoca barbata, all the teeth become worn down to stumps, until not a fragment of tooth is left. In the Halichærus or Grey Seal, the teeth are very simple, and are single-rooted—except, perhaps, the posterior molars.

The Stenorhynchinæ are all—with the exception of the Mediterranean Seal—inhabitants of the Southern seas. There are two incisors above on each side, and two below. The molars are simple, and have two roots. In the large Seal of the Southern seas, the molars have a strong lobe, with accessories behind and before. In the Lobodon or saw-toothed Seal, the molar teeth have each a compressed cone with a number of accessory cusps.

The Cystophorinæ or hooded Seals have two incisors on each side in the upper jaw, and one in the lower. The molar teeth are very simple, and generally have each only one root; they have a slight tendency to the formation of a cone with accessory lobes. In the great Elephant Seal of the Southern seas (Macrorhinus), the canines are large and much furrowed on the side. The molars are single-rooted, and have simple slightly compressed crowns, almost like the homodont teeth of the Cetacea.

The Trichechus or Walrus, which is found in the Arctic seas only, has an enormous tooth projecting at each side from the upper jaw. These tusks are massive, and somewhat resemble those of the Machairodus, but have not sharp edges. They are the upper canines. In the lower jaw, the canines do not project; they are not in a line with the other teeth. The skull is specially modified for the attachment of the large tusks. The tusk is composed of true dentine about half an inch thick, covered with about one-tenth of an inch of cement; there is no enamel on the surface. The growth of the tooth is continuous; and, as it wears, the pulp-cavity becomes filled up with osteodentine. There are generally also four round massive teeth, with flat surfaces on each side above and below. They have single roots; the enamel covering the crowns soon wears off. In the upper jaw, the first of these molar-like teeth lies between the maxilla and præmaxilla, and is generally regarded as an incisor. In the lower jaw, the first of these teeth may be called a canine, the next three præmolars or molars. In the young Walrus there seem to be more teeth than in the adult. In a young animal, which

died, the upper canines were about an inch and a half long; there were a small incisor in front and another concealed by the gum; and beyond these, three molars, with a small one embedded in the gum. These small teeth may remain through life. The canines are preceded by milk-teeth. The first tooth of the molar series in the upper jaw, as in the Dog and other Carnivora, has no predecessor; but the second and third are preceded by milk-teeth. In the lower jaw, there are three milk-teeth. The ordinary dental formula of the adult Walrus is $i \frac{1}{6}$, $c \frac{1}{1}$, $p \frac{3}{3}$. The canines are almost equally developed in the male and in the female; they are said to be generally thicker in the male, and to diverge more. They are used in fighting, and, it is said, in climbing over the ice.

CLINICAL MEMORANDA.

FIBROUS DISEASE OF THE UTERUS.

IN the notes on the treatment of fibrous disease of the uterus beyond the reach of the knife, I observe that electricity is recommended by some. I have used with success in one case an application of electricity by means of rods of zinc and copper spliced together lengthwise. These rods are about ten inches long, and pointed at one end, so that they can be made to pierce a fibroid. The tumour is thus transfixed by several rods, around each of which currents are established, and chemical action set up, so as to "destroy the vitality" (?) or "rouse the absorbents" (?) of the neighbouring tissues. After remaining in the tumour for some time, they become, as is the case with Simpson's galvanic uterine stems, coated with oxide of zinc, and leave the tissues in a soft pulpy state. I have had one case in which a very large mass was considerably reduced in this way in less than a month. The amount of pain and inconvenience produced is very slight indeed.

Newcastle-on-Tyne.

W. MURRAY, M.D.

A CASE OF SCIRRHUS OF THE LIVER.

R. D., aged 51, a basket-maker, came under notice last Christmas for pain across the epigastric region. Up to that time he had always enjoyed excellent health. When visited at first by my partner, Mr. Wylls, it was found that his general state of health was good; he never had any particular illness; his habits were strictly temperate and regular; the digestive organs were in healthy condition, his appetite being good, and nothing disagreeing. The tongue was clean, the bowels regular, and the pulse natural. The body was well nourished. The family history was certainly good: as far as he knew there was no cancer. The only symptom complained of throughout the illness was pain at the scrobiculus cordis, greatly aggravated by pressure; no considerable enlargement could be detected. He never suffered from icterus, vomiting, or nausea, at any time. There was no œdema of the lower extremities. Mild aperients with tonics were administered, attention at the same time being directed to diet. The complexion was dark, but in no way sallow. The pain gradually increased, and opiates were given, the bowels being regulated by pills, consisting of podophyllin with extract of belladonna. A blister was applied to the epigastrium, and kept open, discharging for some days. After this, a circumscribed swelling was discernible, which, in combination with rigors, led me to suspect that the case was one of abscess. Hot linseed-meal poultices were now applied, in addition to the other treatment. After a while, however, the swelling diminished, but the pain was constant. A few weeks before death, symptoms of anasarca manifested themselves; the swelling, at first, showing itself in the left leg, and afterwards in the right. During the last forty-eight hours, sphacelus commenced in the right foot. He died on March 25th of the present year. The necropsy was made on the following day. The liver was of enormous size, occupying even the left hypochondrium. Its weight was upwards of 7 lbs. It was studded with distinct and well-defined patches of scirrhous deposit, in various shapes and sizes, the structure of the gland itself being in a state of disorganisation. The gall-bladder was flaccid, containing bile. A little bilious matter was discovered in the liver. The pancreas and hepatic vessels were matted together into a hard mass, which, upon being cut with the scalpel, presented all the appearances of true scirrhus, and, under the microscope, showed abundant cancer-cells. The heart was small and soft, easily torn through. The lungs, the spleen, and the kidneys, were healthy.

The case is remarkable in that there were too few symptoms detected during life (particularly at the onset of the illness) to lead one to suspect disease of such magnitude, although for some weeks past, from the character of the pain, my partner and myself had diagnosed the case to be one of malignancy. The appetite continued good throughout, the

function of digestion not being in the least degree impaired; even stout, latterly, was freely swallowed, without creating any unpleasantness or inconvenience. Morphia in third of a grain doses was frequently given, and materially relieved pain and procured sleep. There was only a trifling quantity of fluid discovered in the peritoneal cavity. No particular history was attached to the case. It was not under medical supervision more than three months, although it was stated the man had not been in his usual state of health for some time, occasionally suffering from spasmodic pain at the scrobiculus cordis. He was always enabled to follow his avocation until about three months since.

SPENCER T. SMYTH, M.D., F.R.C.S.

Great Yarmouth, March 27th, 1871.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

NOTES ON THE MEDICAL TREATMENT OF FIBROUS DISEASE OF THE UTERUS BEYOND SURGICAL INTERFERENCE.

[Continued from page 400 of last number.]

ADELAIDE HOSPITAL, DUBLIN.

THE cases of fibrous tumours of the uterus beyond surgical treatment which have come under Dr. LOMBE ATTHILL's observation admit of being divided into two great classes—namely, those in which, from the absence of any prominent symptom, no treatment whatever is called for, and is, therefore, in his opinion, injurious; and those in which the presence of hæmorrhage or symptoms arising from the size of the tumour imperatively demand interference. Of the former class he has met with several instances; one especially has been under his observation for two years, in which the tumour is larger than the foetal head at full term. This tumour does not give rise to any symptom, save the annoyance due to its weight. Such patients are often in feeble health, requiring the administration of tonics, iron, etc. Dr. Atthill believes that treatment directed to tumours of this class is often productive of positive injury. He has lost faith in the value of any drug administered with the view of causing absorption of fibrous tumours, and therefore he confines himself to treating such symptoms as may arise. Hæmorrhage is, of course, usually the most prominent one. To check this, when not very profuse, he relies on the administration of ergot and gallic acid, and sometimes of alum in powder; or, if the patient be anæmic, tincture of digitalis and the solution of the perchloride of iron in ten-drop doses. He thinks that digitalis is a very useful agent in menorrhagia depending on any cause. He mainly, however, relies on the plug for the arrest of hæmorrhage in these cases. He first introduces a strip of cotton-wadding soaked in saturated solution of perchloride of iron in glycerine, a string being attached to it to facilitate removal; and then fills up the vagina with dry wadding, removing the whole in twenty-four hours, and replacing it when necessary. At the same time he administers the ergot, or iron and digitalis, as already mentioned. The abdominal bandage certainly often does good where the size and weight of the tumour demand support, but as often fails to afford relief.

SHEFFIELD HOSPITAL FOR WOMEN.

Dr. J. H. AVELING believes that, by medical treatment, arrest of growth, atrophy, and displacement of fibro-muscular growth, may be effected; and that we should not too hastily use the more dangerous surgical means until the therapeutical have proved of no avail. The remedies by which he endeavours to produce these three results are ergot and bromide of potassium. The bromide diminishes the flow of blood in the uterus by subduing ovarian excitation. The ergot effects the same mechanically, and, besides this, extrudes the tumour towards the peritoneal or mucous surfaces of the uterus. Less blood means less nutrition; and as the interstitial situation of the morbid body is that in which most hæmorrhage and pain occur, its removal to either surface is very desirable. Hæmorrhage may be lessened by persistently administering small doses of arsenic, but the plug is the best and most neglected hæmostatic in these cases, for besides offering a material obstacle to the escape of the blood, it produces, by its presence, contraction of the uterus. Pain may be relieved by rest on the back, or on the side with the legs drawn up; and in the upright position, by an abdominal belt. He also uses pessaries and suppositories of morphia

and atropine, and orders the bowels to be kept free by means of copious cold water injections. Dr. Aveling thinks that the causes which determine atrophy demand further and more careful investigation. A very slight interference will sometimes produce it; *e.g.*, parturition, tents, exploring needles, the electro-magnetic current, and, in a case under his care, the inflammation set up by attempting to rectify the position of the uterus with a sound.

LADIES' CHARITY AND LYING-IN HOSPITAL, LIVERPOOL.

DR. THOMAS SKINNER has long ceased to have any faith in the absorption of tumours of a fibrous structure anywhere in the body, more especially when developed within the area of the genito-urinary region in the female. Among the many distinguished observers who sincerely believed in the possibility of such absorption, and where probably the wish was largely father to the thought, stands the honoured name of the late Sir James Simpson. Dr. Skinner has seen more than one of the cases which led him to this extraordinary conclusion, and from what he saw then, and from what he has seen since, he has no faith whatever in bromide of potassium or any medicinal agent, in small, heroic, or moderate doses, possessing the slightest power of absorbing or of causing in any way, directly or indirectly, the absorption of fibrous or fibroid tumours of the uterus. The most flattering view which he can take of the phenomena is, that the *post hoc* has been mistaken for the *propter hoc*. The cases are so very few, so doubtful as regards their real nature, and the results so questionable, that it is remarkable that medical men of known probity, of undoubted genius, and of the highest standing, should found on them a rule of practice. That these tumours have periods of growth and increase in bulk and in hardness, and have a tendency to degenerate into cartilaginous, calcareous, and osseous substance, there can be no doubt. This is the rule. It is also true that they at times diminish in bulk. Their fluid contents—for they are often more or less cystic—become absorbed, and the accompanying local engorgement and general *embonpoint* are frequently similarly influenced by the local and general condition of the system. Pregnancy considerably influences such tumours, causing—according to the stage, condition, and *locale* of their development—sometimes enucleation, and much more rarely their atrophy or absorption. These are the exceptions, and are a part of the natural history of such tumours in which medicine plays a most insignificant part. There is, Dr. Skinner believes, only one legitimate course, and that is to attend to and keep up the vitality of the patient as near as possible to the standard of health. Like all parasites and abnormal growths, uterine fibroids thrive upon and have their origin in weakness and decay. “The more sound the health, the slower will be the growth of the tumour”, was the rule of practice with Sir James Simpson; and it is, and has always been, that of Dr. Skinner. This can best be done, and can only be done, in the interval between the menstrual periods. Dr. Skinner cares not what the means are—their name is legion; and in a short account like this, it is impossible, he thinks, to point out even what is best, and the more so as every case must be taken upon its own merits, no two being the same as regards therapeutical indications. As regards pain and uneasiness from mechanical, vital, or inflammatory causes, they must be met by mechanical support, local and constitutional anodynes, regulation of the *prima via*, especially by salines, and by antiphlogistic treatment when necessary. Hæmorrhage or menorrhagia accompanied with clots is the *pons asinorum* of our present difficulty. Dr. Skinner holds that all attempts to check the accompanying menorrhagia are in general both futile and mischievous. The drain is almost always salutary, and rarely destructive or dangerous, if the patient be unimpregnated. Any woman, the subject of a large fibroid, if asked how she feels when much or little poorly, will never fail to answer—“I am best in my general health when most poorly.” Much more good, however, can be done, both locally and constitutionally, as prophylactic and curative of the accompanying symptoms in the interval, than can be done as curative or even palliative during the menstrual period—and, of a truth, much good can be done.

ABERDEEN DISPENSARY.

DR. ANDREW INGLIS has no faith in mercury, given either by the mouth or applied externally, nor in bromides or iodides, as remedies for fibroids of the uterus; ergot, however, produces good mechanical results, either by bringing on absorption in some rare cases, or in others by procuring enucleation and expulsion. The latter effect is more common; but this he considers merely mechanical, assisting surgical interference. He has a case just now of a large fibroid which eight or nine months ago suddenly began to shrink up, and has not produced any more unpleasant symptoms since; but this is not usual. The patient was given for several days large doses of ergot to stop severe bleeding.

He has also another patient under care with a small tumour hanging out of the uterus; the neck is daily becoming smaller under the same treatment.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.

DR. WYNN WILLIAMS states that he must honestly confess that he is not acquainted with any drug that will cause, or even hasten, the removal, either by disintegration or absorption, of fibroid tumours of the uterus. Having watched the long-continued use—some might even say abuse—of iodine and its salts, without ever having witnessed the wonderful effects said to have been produced on the testes and *mammæ*, he feels somewhat sceptical. On the other hand, he considers that we have it in our power to delay, if not even to prevent, the increase of these tumours. We may, he thinks, with certainty presume that when congestion and inflammation are set up, deposits of plastic or fibrinous matter take place in and around the tumour, which on becoming organised form part and parcel of it. To prevent this inflammation and subsequent deposit and organisation, should be our aim. Local abstraction of blood, by leeches or otherwise, is one of the speediest and most certain means by which to overcome the first condition. The latter conditions may be, and are, greatly influenced by the administration of iodine and its salts and the salts of bromine, or a combination of the two—the former in small doses, the latter in large. There is another drug on which he places much reliance as tending to prevent the increase of these tumours. Liquor potassæ in doses from thirty to sixty minims in a glass of water does undoubtedly act beneficially in delaying their growth. The growth of fibroid tumours is influenced by pregnancy. In more than one instance the growth has been stayed during pregnancy, and the size of the tumour even diminished, and for several years there has been no increase. Much may be done in the way of producing comfort by a well-adjusted belt, to prevent dragging or undue pressure on any particular part. To restrain flooding, we must have recourse to gallic acid in doses of not less than twenty grains, first dissolved in boiling-water, enough cold being added to enable the patient to swallow the draught without the deposition of the crystals of gallic acid. Gallic acid will not always have the desired effect: we must then have recourse to full doses—thirty to sixty minims—of tincture of the perchloride of iron, combined with twenty minims of liquid extract of ergot. At the same time it must not be forgotten that local remedies are often much more certain and speedy in their action in arresting these hæmorrhages than general ones, and whenever the latter fail we must not hesitate to have recourse to the former; and for this purpose two remedies may with almost a certainty be relied on. One is a strong solution composed of two drachms of tannic acid, three drachms of rectified spirits and six drachms of water, injected by means of an India-rubber bottle and flexible tube introduced as far as possible into the uterus itself. The other remedy is the perchloride of iron, either the tincture or liquor, with equal parts of water. Of necessity the action of the bowels has to be carefully regulated. These are the remedies to which he chiefly has recourse for the purpose of staving off the more serious symptoms until after the climacteric period has passed, when these tumours would appear, as does the uterus itself, to lessen with cessation of its functions; and when were it not for their often great inconvenience and interference with the performance of the functions of other organs, they might be considered harmless growths.

DR. BANTOCK'S experience leads him to the conclusion, at the outset, that there is no condition of the uterus which he is called upon to treat in which the results are so unsatisfactory as fibrous tumour, with the exception of cancer. It appears to him that the indications of treatment are three: *viz.*, (1) relief of the hæmorrhage which almost invariably accompanies this disease, whether in the form of excessive menstruation or irregular hæmorrhages; (2) the relief of symptoms arising from pressure on the rectum, bladder, and sciatic nerves; (3) the interruption of the growth of the tumour. As regards the relief of hæmorrhage, he relies for the most part on the ergot of rye, which he now prescribes in the form of the liquid extract, in ten-minim doses thrice daily. When the loss of blood has been such as to produce some amount of *anæmia*, he combines with it ten-minim doses of tincture of perchloride of iron. In other cases, he administers twenty grains of chloride of ammonium three times a day, or the biborate of soda in ten to twenty-grain doses, along with the ergot. Dr. Bantock has apparently been successful in some instances with these remedies. The second indication is fulfilled by mild aperient medicines which prevent *fecal* accumulation in the rectum, and, to the same extent, obviate pressure on the left sciatic (sacral) nerves. When there is frequent micturition and bladder-irritation, care is to be taken that the urine is maintained in as healthy a state as possible. The third indication is the most important, inasmuch as success in this will attain the ends in view in the other cases. But here Dr. Bantock believes we are well-nigh helpless. He cannot posi-

tively affirm that he has known a fibrous tumour to decrease in size permanently. It is well known that fibrous tumours of the hard variety are of very slow growth; and it requires a period of many years before they attain a great size; in a very large number of cases they involve no danger, especially if occurring near the climacteric period. The growths of, and symptoms produced by, the tumour, depend, however, in great measure on its position with reference to the substance and part of the uterus; thus a subperitoneal or extramural tumour often becomes pediculated, and tends to its own ultimate death by gradual contraction of the pedicle and consequent diminution of blood-supply. This result, Dr. Bantock believes, is most likely to arise when the tumour carries with it little or none of the uterine platysma or muscular structure of the body, and nature brings about that result which the physician tries to imitate. It is with the view of interrupting the blood-supply and nutrition of the tumour, that ergot is administered; the same with the biborate of soda. How the chloride of ammonium acts, he is not prepared to say. In the true intramural tumour, the case is worse, while in the submucous variety, the case, sooner or later, comes under the care of the surgeon. The fibro-cystic and fibro-cellular tumours are utterly beyond the physician's aid. Dr. Bantock has administered bromide of potassium in a large number, and he cannot affirm that diminution of the tumour has resulted. Certainly, in his experience, it has not lessened the hæmorrhage, the first indication which one would expect of any decrease.

LONDON HOSPITAL.

ERYSIPELAS DURING THE ADMINISTRATION OF IODIDE OF POTASSIUM.

(Under the care of Dr. LANGDON DOWN.)

THE following interesting notes have been communicated by Mr. Stephen Mackenzie, resident medical officer of the London Hospital.

CASE I.—Elizabeth N., aged 36, a tailoress, was admitted October 17th, 1870. She stated that she was an in-patient of the Hospital two years ago, with "rheumatics", and that she had never been really well since. She had not had scarlet fever. Three weeks before admission, her face began to swell, and shortly afterwards her legs and abdomen. She suffered much from headache and vertigo, and retched much in the early morning lately, but had not actually vomited. She was a married woman, but had had no family. She had not menstruated for the last four months, but did not believe herself to be pregnant. She now complained of anorexia, pains in the legs, and nocturnal micturition. Her face was puffy and her complexion sallow; the legs were oedematous. There was a faint systolic murmur heard at the apex of the heart. Her urine had a specific gravity of 1010, and was alkaline; there was no albumen, and no casts. She was ordered a fourth of a grain of hydrochlorate of morphia at bed-time, and quinine and iron mixture three times a day.

On October 20th she was ordered to take compound iron mixture and compound decoction of aloes, of each half an ounce, three times daily. October 25th. She continued to complain of pains in the legs, which were still somewhat oedematous.

November 10th. She complained of soreness of the throat, and on looking into the mouth there was observed some ulceration of the soft palate. The oedema had now disappeared from the legs, and there were painful nodes on the tibiae. Careful inquiry elicited a history of syphilis. She was ordered to take five grains of ammonio-citrate of iron, five grains of iodide of potassium, and an ounce of decoction of cinchona, three times a day; to suck chlorate of potash lozenges, and to gargle her throat with a hydrochloric acid gargle.

November 18th. She complained of headache, and running at the eyes and nose. The iodide of potassium was discontinued.

November 19th. There were redness, swelling, and oedema, of the right side of the face. The redness was circumscribed, and disappeared temporarily on pressure, and was accompanied by pain and pricking. Her skin was hot, and she had a quick pulse. She was ordered to take the ammonia effervescent mixture every four hours, and to apply an acetate of lead lotion to her face.

November 21st. The erysipelas had extended to the left side of the face, which was now greatly swollen. There was a good deal of fever, and her tongue was much furred.

November 25th. The erysipelas was subsiding. She complained of great weakness. She was ordered to have five grains of the ammonio-citrate of iron added to her mixture.

Her restoration to health was slow, and was retarded by an obstinate attack of diarrhoea, which much reduced her. Her hair came out in large quantities. On December 31st it was noted: "She feels quite well, and wishes to leave."

CASE II.—William W., aged 56, was admitted October 26th, 1870. The patient was a barber, and, like many of his occupation, a fussy, garrulous man, of not very temperate habits. He had rather a bloated appearance; his cheeks were congested, and both hands and tongue were tremulous. About thirty years ago he had a chancre, which was followed by secondary symptoms. Six years ago he had pains in his bones, especially the tibiae. For the last twenty years, he said, he had had occasionally a sore throat. During the last six months his tongue had been ulcerated, and it had gradually become worse. He now had an excavated ulcer with sharp edges on the right side of his tongue, and in the neighbourhood of it were some cicatrices. He was ordered a mixture containing ten grains of iodide of potassium and half a drachm of aromatic spirits of ammonia, to be taken three times a day; his tongue to be touched with solid nitrate of silver every other day.

October 31st. He had coryza and headache. The mixture was discontinued.

November 1st. A vesicular eruption had appeared on his upper lip. He was more tremulous, had lost his appetite, and did not feel well. He was ordered to take quinine mixture thrice daily, and to apply spermaceti ointment to the lip.

November 6th. He had a rigor, which lasted for some time.

November 10th. The side of his face had suddenly become red and swollen, and pitted on pressure. He was ordered to take saline mixture every four hours.

November 11th. The tongue was foul; the hands extremely tremulous; the face was very red and much swollen. The redness was circumscribed and disappeared on pressure, and there was a moist exudation on the skin affected. The erysipelas spread until the whole head and face was involved; he became rapidly weaker; was delirious; his tremor was converted into subsultus; and he finally sank comatose on November 14th, the fifth day of the disease.

At the necropsy, both lungs were found extremely congested, and in the left were scattered patches of broncho-pneumonia in a state of red hepatisation. There was a little recent pleurisy. The heart, liver, and spleen, were healthy, and the kidneys were wasted and contracted.

CASE III.—William P., aged 40, labourer, was admitted November 8th, 1870. The patient was a married man and the father of eight children, five of whom died in infancy. He acknowledged having had a chancre some years since, and he had not led a temperate life. Six years ago, whilst lying on his bed, he suddenly became unconscious, and on recovery he was told he had had a fit. He did not bite his tongue during the fit, but remained drowsy for some hours afterwards. He remained quite well for two years, and at the end of that time he had another fit. During the next three years he had three or four fits, in some of which he bit his tongue. During the last twelve months the fits had been more frequent; and about three months ago, whilst in one, he fell, striking the back part of his head on some stones. Since the fall the fits have occurred with still greater frequency, so that he now seldom passed a week without having one or two. The fits were preceded by a fluttering sensation at the epigastrium, and then he had a creeping which gradually approached his head, and when it arrived there he became unconscious. For the last two months he had lost all sexual desires. He had a dull, stupid look, and both pupils were extremely contracted. The pupils were dilatable by atropine, but soon became contracted again. He complained of pain, which he said was "very sharp" on the right side of his head. He said he had lost flesh, but his body was very well nourished. He felt weak, but his appetite was very good, and his bowels regular. He was ordered to take ten grains of iodide of potassium in an ounce of decoction of cinchona thrice daily.

November 22nd. During dinner-time he had a fit, which lasted between three and four minutes. He was quite unconscious, but did not bite his tongue. After the seizure there was noticed slight paralysis of the left side of the face, the mouth being drawn up a little to the right. The tongue protruded in the middle line. The pupils were equal.

November 25th. The facial paralysis had quite disappeared. He was ordered to take a teaspoonful of cod-liver oil twice a day.

December 6th. He had a seizure every few days, which was always preceded by a sinking feeling. The iodide of potassium was increased to fifteen grains.

December 17th. He had a seizure for the first time since the increase of the iodide; and another on the 18th.

December 19th. He had two fits this morning. There were redness and swelling, which pitted on pressure, on the right side of the face, about the infraorbital region. Pulse 104, respiration 26, temperature 103 deg. He was ordered to discontinue the iodide of potassium, and to take instead an ounce of saline mixture every four hours. There was no erysipelas in his ward, but he was sent to another.

December 25th. The erysipelas, after starting from the right infra-

orbital region, spread over the whole of the right side of the face. There were vesications on the surface of the inflamed skin; the redness was abruptly margined, and disappeared on pressure. The erysipelas had now almost wholly subsided.

The man is still in the hospital, but has had no return of the erysipelas.

On these cases, Mr. Mackenzie makes the following remarks.

In these three cases, erysipelas occurred in patients to whom iodide of potassium was being administered for constitutional syphilis. In two of the cases, the toxic effects of the iodide appeared to be the starting point of the erysipelas. In these two cases there were ulcerated mucous surfaces, but in the third there was no abraded mucous surface or open wound of any kind. In one case (Case II) the erysipelas seems to have spread by contagion, for there was a patient in the next bed with idiopathic erysipelas of the face, to whom he showed great attention. In the other two cases it appeared to arise without contagion or infection, for in the ward in which was Case I, there neither was nor had been any erysipelas; and in the other (Case III) there was no erysipelas at the time in the ward, which was, however, the same as that in which Case II had occurred some time previously.

Whether there be any connection between the administration of the iodide of potassium and the erysipelas, whether they be cause and effect, or whether it be merely coincidence, is of course open to speculation: but, occurring as they did near about the same period, the cases forcibly directed our attention to the subject, and have made us on the look-out for others.

Supposing the iodide of potassium to have acted either as the predisposing or the immediate cause of the erysipelas, it would be only right to endeavour to explain how this is brought about. Is it by merely vitiating the blood, and thus giving the individual a greater susceptibility to the influence of infection or contagion? or is it by setting up in the body a process closely resembling, if not identical with, what occurs in inflammation of the skin or erysipelas?

In favour of this latter supposition, we have the fact that in iodism the parts most affected are the eyes, the nose, and the mouth, and that it is in the same region that the erysipelas started. But against this it may be said that idiopathic erysipelas selects this same locality independently of any influence of iodide of potassium. The fact, however, remains, that the erysipelas appeared in the vicinity of parts which were already irritated if not inflamed.

Further; Dr. Sydney Ringer, in his *Handbook of Therapeutics*, states: "According to most authorities the iodide produces, probably after its absorption into the blood, decided changes in the mucous membrane of the mouth. It causes redness and injection of the lining of the cheek, the throat, the soft palate, and of the tongue, and an increased growth and separation of the cuticle covering these parts." Here is a process very closely allied to inflammation. Does this by extension from the mucous membrane to the skin of the face cause inflammation of the latter—in fact, erysipelas? And again, quoting the same authority: "The tissues most frequently and most severely influenced by this drug when iodism occurs are the mucous coverings of the eyes and lining of the nose, frontal sinus and mouth, with the skin of the face. . . . The loose tissues about the orbit become swollen, reddened, and œdematous. . . . The nose is sometimes reddened, especially at the tip, and is at the same time rather swollen." We all know that at the same time there are heat and pain, so that we have all the classical symptoms of inflammation of the skin. In the following cases the iodide was discontinued immediately on the first appearance of coryza. In spite of this, however, in Case I, on the day following the coryza, there appeared redness and œdema of the face, which spread from one part of it to another until the whole was involved, and with these there were grave constitutional symptoms. In Case II, on the day after the coryza, there appeared a vesicular eruption on the upper lip. Five days later the man had a rigor, and four days later still the face suddenly became red and swollen, and pitted on pressure. In Case III, the erysipelas started from the right infraorbital region without the patient having manifested any symptom of iodism.

There is one more possible explanation: iodide of potassium is known to influence the glandular and absorbent system. Mr. Campbell De Morgan, in the last edition of *Holmes's Surgery*, in speaking of the symptom pointed out by Frank as determining the advent of erysipelas of the head and face, namely, pain, tenderness, and swelling of the lymphatic glands of the neck, says: "Mr. Busk tells me . . . he believes that, although the blood becomes affected, the actual primary seat of the local inflammation is in the absorbent system." Does, then, the iodide of potassium so influence the absorbent system as to cause it to be ready for erysipelas to be set up by trifling causes, or actually to take on erysipelatous action?

That it was not in our cases a simple inflammation of the skin, but

really erysipelas, with which we had to deal, is, I think, sufficiently shown by the character of the local disease and its attendant constitutional disturbance—in one of the cases leading to the death of the patient.

BRITISH MEDICAL JOURNAL.

SATURDAY, APRIL 22ND, 1871.

PRESCRIBING AND DISPENSING.

IN an address on the Relations of Prescriber to Dispenser, Dr. Campbell Black of Glasgow returns to a subject of which he has already discussed some parts with considerable controversial vigour. Dr. Black holds very uncompromising views as to open surgeries. "If there is any one belief that I hold more strongly than another in medical matters, it is the principle that no medical practitioner should have a pecuniary interest in the drugging of his patients." He asserts that in Glasgow, out of a total of one hundred and ninety practising practitioners, not fewer than one hundred and twenty put themselves in open competition with druggists. He charges the shop-system with producing a slipshod method of dispensing, indiscriminate drugging, and a downward competition. Under this system, he says, no fee is asked in the back room, but the bottle is sure to be advised "to be got at the counter". This "bottle-system" has ingrained into the minds of many in the city that medical men should be paid only for their medicine. Under this system, it becomes necessary for the prescriber to obtain the medicine as cheaply as possible. Dr. Black quotes an instance of a surgeon requiring his purveyor to supply him with compound colocynth pills at three halfpence a dozen, at which price the pharmacopœial pills cannot be produced at first cost, and the scammony—the Hamlet of the play—has to be omitted. In a sentence full of bitter suggestion, he observes that, in the adulteration of medicine, the man who is both the prescriber and the dispenser has an obvious advantage over the simple compounder of medicine.

If it be asked why the shop-system is so much practised in Glasgow as Dr. Campbell Black complains that it is, the answer is not obvious. Glasgow citizens, as he observes, are not distinguished by any physiological peculiarity from Edinburgh citizens or those of Greenock. In Greenock there is one doctor's shop, and in Edinburgh but four. Greenock is full of artisans, however, and has a large poor population; but medical practice is successfully conducted on pure principles.

Dr. Campbell Black is a vigorous accuser, and he does not spare sharp phrases; but on the face of it he will probably carry with him the majority of the profession in and out of Glasgow, in general principles. The trade-interest in drugs prescribed is a drag on medical practice; and, wherever it can be dispensed with, the profession and the public must alike be benefited by the divorce. The application of absolute principles is often, however, beset with difficulties. The history of human society and of its mode of ordinance and government is a history of incessant compromises and gradual development. The medical profession has passed through many phases of relation to society; and they have varied in different places, according to the sparseness, poverty, prejudices, and social customs of the population. The "shop-system" in many places is the reaction against the unauthorised counter-practice of druggists; and there can be little doubt that, comparing the two, and supposing one or other to be essential, the public benefit enormously by a preference to the former. If it were possible entirely to abolish counter-practice amongst druggists, the shop-system would lose its *raison d'être* amongst the medical men practising in poor neighbourhoods. The union of dispensing with prescribing might still be necessary under some circumstances, especially in sparsely peopled and rural districts; but it would die out generally. As it is, it exists largely as the lesser of two evils, and, as such, is not, we apprehend, to be bitterly decried by those who stop short of providing the remedy, however much the causes which

give rise to it may be regretted. To the extent to which it is possible to reduce it, we believe that all will concur in desiring to see it reduced. Where it can be extinguished, we think there is an undoubted advantage in extinguishing it. It is hostile to a high professional tone; it tends to reduce the estimation of the profession in public opinion, and to defile with treasonable doubts and commercial suspicions a profession which claims an immunity from both. The skill of the man is sunk in the estimate of his wares. The consultation is little esteemed, consultants are few and badly paid, and the general standard of professional position is likely to be injuriously affected, where the shop-system generally prevails. Nor is the scale of professional remuneration likely to be less depressed. Every consideration, therefore, unites to condemn this system where it exists beyond the evident limits of strict necessity. In this opinion we have little doubt that our colleagues in Glasgow will for the most part readily concur. Old custom has great weight, and it is difficult for individuals to step out of the easy and beaten track; but it may be a question whether acquiescence in the existing state of things is not a deeper hardship than an united effort to get rid of them would prove. The profession in Glasgow must be strong enough to make such an effort with ease and the certainty of success. We do not apprehend that the existing system is really generally satisfactory either to the profession or to the public in Glasgow; and the citizens of Glasgow would, we believe, favourably receive a general effort to divorce prescribing from dispensing; to charge a fair fee for advice, as is now a general custom elsewhere; to limit open surgeries to the utmost; and to put medical treatment and consultations generally on a higher basis, and better considered scale of remuneration. All parties would gain by it.

SCIENTIFIC THERAPEUTICS.

WE commence this week a series of lectures on the Physiological Investigation of the Action of Medicines, by Dr. T. L. Brunton, Lecturer on Materia Medica at the Middlesex Hospital. These lectures will speak for themselves in the course of their publication. We may, however, at the outset, bespeak for them, in a very few words, the attention of our readers. The object is one of fundamental importance for the progress of medicine. It is, indeed, the practical application to therapeutics of our theoretic knowledge; it aims at testing our weapons and instructing us in the method of using them.

Men sometimes ask what is scientific medicine, as distinguished from empirical practice. Such researches as these are destined to furnish the answer. Recently a distinguished and highly accomplished correspondent declared in our columns that therapeutics were not taught at all in our medical schools; that lecturers on materia medica gave drug-lists and reputed actions and doses; but that practical therapeutics—the art of studying the action of medicines, and of investigating their action in disease by comparison with their physiological actions—the crowning point of therapeutical study, and the essential condition of the advance of scientific medicine—were ignored by all our teachers of materia medica. Somewhat to our surprise, the glove thrown down by “F.R.S.E.” remained in the lists; and none of the teachers of our schools sought to relieve themselves of the imputation which he strongly urged, that therapeutics are taught in our schools after an effete method, and that lecturers on materia medica perform their duties in an obsolete and perfunctory fashion. Dr. Brunton’s lectures will show that the teaching which he adopts offers a conspicuous exception to the application of such strictures. It is, however, beyond question that, however numerous may be the like exceptions, the instances in which therapeutics are taught upon a sound experimental basis in our schools are exceptional. The means of physiological investigation of the action of remedies need, in the present state of science, to be laid before the student. He should be instructed in their use, and familiarised with the manipulations, as well as with the sources of fallacy. The present state of knowledge of physiological actions of drugs needs to be summarised for his benefit, and the means of testing and applying the re-

sults of modern investigations to be brought under his eye and placed within his reach. This is what we hope to popularise in publishing Dr. Brunton’s lectures. They open a vein of work not much cultivated, but full of promise, and of essential importance. Inasmuch as all of our profession are, to the last, students of therapeutics, the lectures will, we apprehend, be found not less useful to practitioners—students in the hospital and sick-room—than to the younger students of the schools.

ARMY MEDICAL ESTABLISHMENTS AND SERVICES.

IT is satisfactory to learn from the remarks of the Surveyor-General of the Ordnance, Sir Henry Storks, in the House of Commons on Tuesday last, on the occasion of the vote for the Army Medical Establishments and Services being taken, that there is to be an improvement in the relations between the army medical officers and the men of the army hospital corps, who are provided to act under them as nurses in military hospitals. Hitherto, in accordance with army regulations, the medical officers have had no authority whatever over the men of the army hospital corps. The “entire control over all orderlies”, and the “entire distribution of the duties of male hospital attendants, and the responsibility for the manner in which the duties are performed”, etc., in general military hospitals, are vested in the “captain of orderlies” (see *Army Medical Register*, pp. 44 and 45), who again is responsible for the performance of his duties to the governor and commandant.

The medical officers might require the hospital attendants to do certain duties in the way of watching, dressing, or nursing patients, and the attendants might or might not do them according to the directions given. If they be not done, the plan laid down by the army regulations is for the medical officers to complain to the captain of orderlies, and he, or the commandant, will investigate the complaint, and dispose of it according to his own views and judgment. In all other branches of the military service—in the control as in the combatant branches—the officers intrusted with the responsibility of discharging certain duties have also authority over the subordinates, who are appointed to assist them in the discharge of those duties. The medical department of the army forms the only exception to this system. Sir H. Storks has now informed us that this anomalous want of conformity is to be discontinued. He declared that the Secretary of State for War has come to the conclusion “to have a hospital corps placed entirely at the disposal of the medical officers for the purposes of hospitals during time of peace, and in a time of war a corps for the assistance of the wounded after action”. This is as it should be. Indeed, without some such system it is impossible that the hospital corps can ever be in a satisfactory condition. So long as they serve two masters, looking to one for direction as to the special professional duties for which the corps has been constituted, and to the other for approval, for rewards, for promotion, and for everything ministering to their material welfare and comfort, at the same time that this other master is not in any way qualified to judge how their professional duties are performed, discipline among the men of the corps falls to the ground. The medical services of the corps give way to military services, and what are called “fatigue duties”, which any other men, quite untrained in hospital nursing, and less highly paid, would equally well, if not better, perform. Similar observations apply to the relations of the men of the army hospital corps to the medical officers of the army, when they are employed on active service in the field. There is no more responsible duty, none requiring more special training, than the duty of clearing fields of action of the wounded, of removing soldiers with torn frames and shattered bones from the places where they lie to the hospitals where they are to receive the necessary surgical attention. This in the English military service is put down as one of the duties of the men of the army hospital corps. But the superintendence of the men in the performance of this duty, and the general management of the duty itself, is vested by army regulations in the Quartermaster-General’s department. There is no department of the army which has a greater variety of military duties to perform on

active service, especially before and after engagements, than this very department. To add to its other duties that of managing the removal of the wounded, is very little better than leaving this duty to hap-hazard; and all accounts of the manner in which this really serious task has been performed when British armies have been engaged in action, show that it has been done "anyhow"—that is, without any definite arrangement or system.

In the latter part of the American civil war, when the army arrangements of the United States were on a far better footing than they were at the commencement of the war, the responsibility for the removal of the wounded was put into the hands of the Medical Director of each Corps d'Armée. At the same time, sufficient means and a sufficient authority were given to him to meet the responsibility. From that time, and from that time only, the duty was properly done. The American system has been copied in the Prussian army, though not to the full extent. Sir H. Storks declared to the House of Commons that the importance of the subject to which Dr. Brewer had called its attention, the necessity for having men carefully trained to discharge properly the work of an ambulance corps in time of war, could not be exaggerated. "Independently," he added, "of the desire which every one has to relieve the sufferings of those that are wounded in battle, it is important for the discipline of the army that the soldiers themselves on the day of battle should expect to be properly attended to in the event of their being wounded by the enemy." We thoroughly agree with this remark, and we hope that, when the day of battle does arrive, our soldiers will not only expect to be properly attended to, but will also find the means for such attendance at hand. Remarks to the same effect have been repeatedly made, but we know that in the opinions of some officers, both combatant and medical, who are very capable of forming a judgment on the question, the arrangements at present existing for giving aid to the wounded of our army, in case of this country going to war, are in anything but a satisfactory state. We trust they are now on the eve of improvement.

We reserve comments on some other remarks called forth in the course of the discussion on the vote for the army medical department, such as the subject of hospital stoppages, and the duties and emoluments of the Governor and Commandant and Assistant-Commandant at Netley, till a future opportunity.

COMPULSORY ISOLATION OF FEVER.

A CASE was brought to trial in Glasgow on the 12th instant, which is of interest as being the first instance in which a person has been prosecuted under the Public Health Act, (Scotland) for refusing to allow the removal of a person labouring under a contagious disease. By this Act, it is enacted that "where an hospital or place for the reception of the sick is provided or exists within the district of a local authority, the Sheriff, or any Magistrate or Justice, may, on the application of the local authority, with the consent of the superintending body of such hospital or place, by order, on a certificate signed by a legally qualified medical practitioner, direct the removal to such hospital or place, at the cost of the local authority, of any person suffering from any dangerous, contagious, or infectious disorder, and being without proper lodging and accommodation, or lodged in a room occupied by others besides those in attendance on such person, or being on board any ship or vessel, or may direct the removal from the room occupied by such person of all others not in attendance on him, the local authority providing suitable accommodation for such other persons." Persons obstructing this provision are liable to a penalty of five pounds.

Two large fever hospitals are now at the command of the city authorities, and they have been making strenuous efforts to isolate in these hospitals all cases of fever, and especially of small-pox. The authorities have been very unwilling to put in force the provisions for the compulsory separation of patients suffering from these diseases, but, having met in certain cases with considerable opposition to the removal to hospital, they determined to bring a case to trial. The case was one of small-

pox existing in a crowded part of the city; and, on information being received as to its existence, the officials of the hospital were instructed to have the patient removed. This, however, was opposed by two relatives of the patient, and the officials went away and procured a warrant, armed with which they returned. On returning, they found the patient alone, and he consented to be removed. While they were in the act of removing him his relatives returned, and, stating that the warrant was of no authority, they carried back the patient. On being brought up before the police court, the two relatives were fined each in the sum of £1:1. Although this is the first case of the kind, the authorities are determined to enforce their powers, should this not prove a sufficient warning.

No examinations for appointment to the Indian Medical Service will be held in August of this year.

MR. BRADY, M.P., has been confined to his room with severe bronchitis, but is about to resume his parliamentary duties.

FOUR medical men—Drs. Baxter, Boulter, Wilson, and Clarke—have obtained seats in the Parliament of the Dominion of Canada at the late elections.

SURGEON-MAJOR MOUAT, M.D., of the Bengal Army, will lecture to-day (Friday), at 3 o'clock, on a Visit to some of the Battle-fields and Ambulances of the North of France.

It will be observed that among the papers set down to be read at the Royal Medical and Chirurgical Society on Tuesday next, is one by Mr. Jonathan Hutchinson, on a Series of Cases in which Chancres have been caused by Vaccination.

Dr. CALEB WILLIAMS having resigned the office of Consulting Physician to the York Lunatic Asylum, the Governors, at their last meeting, passed the following resolution:—"That, whilst regretting the infirm health of Caleb Williams, Esq., M.D., has compelled him to withdraw from the office of Consulting Physician, the Governors desire to record their high appreciation of his services, and of the warm interest he has ever taken in the welfare of the institution."

THE record of operations at the Manchester Royal Eye Hospital for 1871, shows an extensive field of practice. It includes 113 cases of Weber's operation for lacrymal obstruction, 237 operations for strabismus, 181 iridectomies, 190 operations for cataract; altogether 996 operations. The number of patients attended to was 6,062. The number of accidents admitted was 1,121; the number of patients admitted indoors was 886. The expenditure for the year was £1,775.

THE metropolitan members of the Association should bear in mind the meeting of the Metropolitan Counties Branch which is to be held at the Charing Cross Hotel this (Friday) evening. The President, Mr. T. Heckstall Smith, will take the chair at 8 o'clock precisely. We understand that Dr. Seaton intends to read to the meeting a carefully prepared paper; and we hope that the members of the Branch will show by their numerous attendance their appreciation of the courtesy which he has shown and of the trouble which he has bestowed in complying with the solicitations of the Branch Council.

THERE were 265 deaths from small-pox registered in London last week, which was 138 above the estimated number. The Registrar-General points out that the number of fatal cases of small-pox reported last week is the highest weekly number that has occurred during the present epidemic. It is probable that part of this increase belonged to the preceding seven days, in which registration was somewhat interrupted by the occurrence of Good Friday. The highest weekly number of deaths from small-pox in London during the various epidemics which prevailed during the thirty-one years 1840-70 was 102 in the last week of 1840.

DR. FALCONER of Bath, Professor Humphry of Cambridge, and Professor Lister of Edinburgh, have been elected British Corresponding Members of the Harveian Society of London.

ANIMAL MECHANICS.

WE shall next month commence the publication of a short course of lectures by the Rev. Professor Haughton, M.D., F.R.S., of Trinity College, Dublin, on the Principle of Least Action in Nature, illustrated by Animal Mechanics. These lectures will be delivered at the Royal Institution; and in reproducing them we shall have the advantage of the author's collaboration, and of being enabled fully to illustrate the text with engravings.

CHARITY ORGANISATION SOCIETY.

THE Medical Subcommittee of the Charity Organisation Society are anxious to obtain information with regard to provident dispensaries and sick clubs; and, as they have reason to believe that there are many such scattered throughout the country which exist for the benefit of particular districts, classes, or trades, but which are not entered in the *Medical Directory*, they would be much obliged to any one who would kindly send them reports, rules, or other information on the subject. Communications should be addressed to the Secretary, Medical Subcommittee, Charity Organisation Society, 15, Buckingham Street, Adelphi, London, W.C.

DEATH UNDER THE INFLUENCE OF CHLOROFORM.

WE regret to announce two deaths which have recently occurred under the influence of chloroform. One was that of a male patient in the Swansea Hospital on the 10th instant. The man had been admitted for severe fracture and dislocation of the ankle-joint, which assumed unfavourable symptoms and ultimately greatly reduced the patient's health, and required amputation of the limb. While Dr. Sylvester, the resident medical officer, was administering chloroform with every care, prior to amputation, spasm and rigidity of the muscles took place, on which symptoms of syncope supervened. Energetic means, as galvanism and artificial respiration, were adopted to revive the patient, which were ultimately for a brief period of time successful, the man being able to reply to a question; but he very shortly afterwards died. The case, the notes of which have been kindly forwarded to us by Dr. Sylvester, presents many features of interest. We shall, therefore, give the details in our Hospital Reports, if space permit, next week. The second fatal case to which we allude is that of a gentleman at Wilmslow in Cheshire, who was about to undergo forcible extension of an ankylosed knee-joint. His surgeon, it is said, began to give him chloroform early in March, at first every day, and then at irregular intervals. On the 13th instant, a drachm and a half was administered before the intended operation; unconsciousness supervened, and the patient died in about three quarters of an hour.

THE NATIONAL AID SOCIETY AND THE BRIGHTON REVIEW.

THE circumstances of the recent offer of the National Society for the Relief of the Sick and Wounded in War to send an ambulance corps to the Brighton review, and the manner in which the offer was received by the War Office, deserve record. The following are the official facts. The Committee of the Society, having decided to offer the services of a complete ambulance corps at the Brighton review, directed the Secretary, Captain Burgess, to make the necessary arrangements. Application was made to the War Office for permission for the corps to appear at the review, as well as for horses and drivers to be furnished at the expense of the Society (not of the War Office as a contemporary states). In the meantime, a sufficient number of medical men who had served under the Society at the seat of the Franco-German war, placed themselves at the disposal of the Society at their own expense. The corps was told off in divisions of two wagons each; the divisions being under Surgeon Manley, V.C., Staff-Surgeon Wills, Assistant-Surgeon Moore, and Dr. Bennett. To each wagon were allotted a surgeon and three dressers, all of whom had seen actual field-service with the So-

ciety's ambulances; the proper complement of stretchers, appliances, instruments, and tents, was provided. Mr. Cordy Burrows, the Principal Volunteer Medical Officer in charge, wrote to the Society asking what it would furnish, in order to prevent the obtaining of a double supply. He was informed that the Society would supply everything which was required. Had the offer of the Society been accepted by the War Office, the very unpleasant event of a dead man having been left for two hours exposed on the field because there was no ambulance to remove him, could hardly have occurred. The War Office had attached to the general staff a surgeon wearing the Society's *brassard*, without authority from the Committee; but, having refused the offer of assistance, it must be responsible for the incident described. The question of the permanence of a National Aid Society in this country, such as exists in others, is raised indirectly. We have no hesitation in expressing the opinion that such a permanent skeleton organisation is highly desirable, as the events of the late and of previous wars have shown. It might most appropriately be adopted in connection with the volunteer force; and we doubt whether the War Office has done wisely to snub the offer of, a systematic assistance, which, when most urgently needed, could only be very imperfectly improvised. The formation of a volunteer ambulance corps is by no means a superfluous matter for the efficacy of a volunteer army; and it is necessary that the members of the corps should learn their duties and have occasional opportunities of acting together for the purpose of training. Training is not altogether so easy as may be supposed; but it is not necessary that, for the stretcher-bearers to learn their duty, volunteers should either be actually wounded in great numbers, or be "daubed with red paint".

PROTECTIVE EFFECTS OF VACCINATION.

FOR the following statement of the effects of vaccination we are indebted to the courtesy of the Vestry Clerk at Liverpool. Of 475 cases of variola in the Ashfield Street Hospital, 100 were unvaccinated, and of these 63 died; 339 were vaccinated, of whom 45 died; in 23, vaccination was doubtful, and of these 11 died. The 339 cases in which the number of cicatrices was noticed, give the following results.

	Cases.	Deaths.
One cicatrix.....	110.....	18
Two cicatrices.....	168.....	20
Three „.....	46.....	3
Four „.....	12.....	4
Five „.....	3.....	0

There were two cases where small-pox occurred for the second time in the same individuals, of which one was fatal. Only two cases occurred after revaccination; in neither case had the operation been performed in this country. It has also been stated, on the authority of the Workhouse Committee, that none of the medical attendants or nurses in the hospitals have taken small-pox, with the exception of one nurse who had not been revaccinated.

THE COTTON DISTRICTS RELIEF FUND.

OUR Manchester correspondent writes:—The balance of the Cotton Famine Relief Fund amounts at the present moment to £120,000, and at a recent meeting of the Executive Committee it was resolved to devote the entirety of this sum to the erection of convalescent hospitals for the benefit of the working classes generally throughout the cotton districts. Dr. John Watts of Manchester, in a very able letter, advocates the institution of self-supporting dispensaries; and urges that the whole of the money should be expended in the simple erection, apart from the cost of maintenance, of hospitals, both general, special, and convalescent. He adduces powerful arguments to show that this plan would work a double good, and would, like mercy, bless him that gives and him that takes; that the poor man would gain in the ready access which he would enjoy to the best medical aid, and not risk the loss of self-respect which the reception of purely gratuitous advice is apt to engender; and that the medical man would be the gainer too, in so far as he would receive a fair yearly stipend for his work, and yet without any of his patients feeling the heavy burden of a doctor's bill.

ARBITRATION IN RAILWAY COMPENSATION CASES.

IN a railway compensation case tried this week in the Birmingham County Court, in which the plaintiff claimed £50 compensation for injuries received, it was decided, after examination of the plaintiff, to leave the question of damages to the judge and Dr. Wade, who, after a short deliberation, agreed to award £21. This is a very simple and satisfactory form of arbitration, and may form an useful precedent.

MEDICAL REFORM.

WE recently denied, on Mr. Headlam's authority, the allegation that he had written any letter expressing a preference for any other measure of medical reform over the propositions of the British Medical Association; and we stated on the same authority, that the letter alleged to exist could only be one written last year, approving of principles which the Association has for several years put forward as the basis of reform—one portal; direct representation; and an effective penal clause. That letter is now produced; and it corresponds with our statement. Those who produce it are well aware that, while Mr. Headlam approves of the principles which they have adopted (we shall not say pirated), he considers as impracticable the provisions which they have tacked on to them for forcing the Corporations into impossible groups for the purpose of representation in the Medical Council, and for disusing their machinery for the purpose of examination, thus disfranchising, degrading, and thrusting them aside, in place of reforming and utilising them. We shall not say where, in our opinion, lies the "impudence" in the statements made concerning this letter: we are only concerned with the question of truthfulness. On this subject, there can now remain little doubt.

MEDICAL GUARDIANS.

WE are pleased to observe that, as a result of the recent contest in Paddington, two medical men have been returned as guardians—Dr. Felce and Dr. Holt Dunn. It is certainly a matter of great importance both to the poor and to the ratepayers that the medical element should be present at Boards where medical matters form a very important item of the business transacted; and we are sure that those of our associates who are Poor-law medical officers will hail with satisfaction the election of Dr. Felce, who was himself formerly one of their number, and is, therefore, not likely to be unmindful of their interests.—At Gateshead, also, we observe with pleasure that, in a sharply contested election of guardians, Dr. R. J. Banning heads the poll.

THE CONTAGIOUS DISEASES ACTS.

OUR Liverpool correspondent writes:—The mind of the public of this town, medical and general, has been much exercised of late with the discussion of the "Social Evil." In its medical aspect, the subject has presented itself mainly in reference to its physical evils; and great divergence of opinion has characterised the discussions, which have occupied the attention of the Medical Institution on two recent occasions. An attempt was first made to obtain the opinion of the members upon the merits of the Contagious Diseases Act, and the desirability, or otherwise, of its extension to the civil population. Here, as elsewhere, strong views were enunciated on each side, but no definite expression of collective opinion was elicited. Some members objected to the Acts on principle and *in toto*; others desired further opportunities of observation, and more definite information as to the actual results already obtained from legislative interference, before committing themselves to a definite conclusion; while a third party were sufficiently convinced of the necessity for some preventive measures, to induce them to advocate the application of the Government measures to the civil population of large towns. The question was revived at a recent meeting of the Institution by the reading of a paper by Dr. Carter, entitled the "Medical Control of Prostitution", in which the author brought out forcibly the weak points in the evidence, especially the statistics, upon which the advocates of the Acts and their extension have mainly supported their case. He did not, however, so far as we could judge,

suggest very definitely or distinctly in what direction medical influence could be brought to bear as a check to prostitution. The paper might be regarded as an expression of opinion against the principles and policy of the Contagious Diseases Acts, rather than an exposition of how prostitution can be controlled by the action or influence of the medical profession. In the discussion which followed, there appeared to be less uncompromising hostility to legislative interference than had found expression on the former occasion, and it seemed probable, from the general tenour of the debate, that if any well-devised and practicable measure could be proposed, which would afford a reasonable prospect of diminishing the spread of syphilis amongst the community, it would receive the support of at least a majority of the profession. The police authorities have recently adopted vigorous and stringent measures to check the growth of profligacy in Liverpool by inditing a batch of brothel keepers, a number of whom have been sentenced by the recorder to imprisonment and hard labour without the option of a fine.

DEATH OF PROFESSOR OPPOLZER.

THE readers of the JOURNAL will have noticed in Dr. J. F. Payne's interesting article on the Medical School of Vienna, in last week's number, some remarks on Professor Oppolzer, one of the most brilliant luminaries of that celebrated seat of medical teaching. We regret to hear that the distinguished physician and professor died on Sunday last, the 16th instant, at the age of about 63. Our correspondent in Vienna, in communicating this information, says that he was a Bohemian by birth. After teaching for some years in Leipzig, he was called to Vienna to fill the post of Professor of Clinical Medicine, the duties of which office he continued to discharge until a few days before his death. He was a most indefatigable teacher, and at the same time had an extensive practice as a consulting-physician in Vienna. Such was his love and zeal for imparting clinical knowledge to the students, that he daily spent two or three hours in his wards, after which he would adjourn to the *post mortem* room or to the chemical laboratory. As a practising physician, he was consulted by thousands of patients annually, not only from Austria, but also from Russia, Turkey, Greece, etc. The deceased professor had been in failing health for some time, although he continued to discharge his duties at the hospital. The cause of death is said to be marasmus senilis, upon which a severe attack of fever supervened. He leaves but one son, who is Professor of Astronomy in the Vienna University.

THE SANITARY CONDITION OF OXFORD.

THE exceptionally high mortality in Oxford during the year 1870 has formed the subject of investigation by Dr. Buchanan, of the Medical Department of the Privy Council; and the report bearing on his inspection has just been issued. It appears that measles, scarlet fever, enteric fever, and infantile diarrhoea, were seriously epidemic in Oxford last year. While endeavouring to arrive at the solution of the unusual occurrence of these diseases, Dr. Buchanan ascertained that in Oxford excrement is being continually washed into the soil, not only from the overflow of cesspools, but also through its reception into pent-up streams; that only about one-half of the streets are drained; and that many of the drains receive only rain-water, while others receive in addition the sewage of houses. As regards the water-supply, which is derived from public water-works and wells, the report affords evidence which tends to show that much of the epidemic disease of the town may be traced to this source. Dr. Buchanan describes the water derived from one of the wells as a mere filtrate of sewage from foul streams and cesspools. There appears to be no attempt to purify the sewage at its outfalls; and it results, as a consequence, that all the streams that pass through and below Oxford are themselves more or less in the condition of sewers. The free percolation of long pent-up and decomposed cesspool contents into the ground is quite the rule; and no better account is forthcoming in the case of out-door privies, which are not water-closets. The house-accommodation is bad, in respect of site and ventilation particularly, many of the poorest houses being as badly off as

those of any town in Dr. Buchanan's experience. The report states that the public arrangements for removing filth from houses are greatly wanting in system and completeness. Strange to say, Oxford has no medical officer of health; and, as one consequence, accommodation has not until quite recently been furnished for the reception of infectious diseases, and that afforded has been taken advantage of imperfectly. A medical officer has since, on the recommendation of Dr. Buchanan, been appointed, but only for a limited period. It is to be hoped that Oxford, jealous of its reputation, will seriously betake itself to carry out at once the numerous necessary sanitary requirements contained in the report. That the Local Board is at length aroused to a sense of its shortcomings, is to be presumed; for it is stated that certain plans of main sewerage have been adopted, to be submitted to the Secretary of State for his approval.

TRICHINA DISEASE IN ENGLAND.

DR. COBBOLD reports in our columns to-day the first instance in which the trichina or flesh-worm disease has been observed in living patients in this country. Since the trichina was first discovered by Mr. Paget and described by Professor Owen, frequent outbreaks of the fatal epidemics to which it gives rise have been observed abroad, and the symptoms have been described in British medical journals. Some thirty instances have been recorded, too, in which the presence of the trichina has been ascertained in the muscles of subjects examined after death. Mr. W. L. Dickinson of Workington has for the first time recognised the symptoms of the disease in this country, in a farmer's family whom he was called to treat. Suspecting the home-fed pork which they had been eating to be infected with trichina, he forwarded a specimen to Dr. Cobbold, who has found it to swarm with trichinæ, and has afforded us the opportunity of verifying that observation. Trichinous disease is extremely rare in British-fed pigs, and has hitherto only been observed in one or two instances. The subject of parasitic diseases of domestic animals is one of wide-spread and increasing interest; it is being treated in the Cantor Lectures, now in the course of delivery at the Society of Arts. It has an immediate relation to the irrigation of fields with sewage.

THE CLINICAL SOCIETY.

AT the last meeting of this Society, a paper on a case of Malignant Disease of the Femur was read, which, it was stated by one of the members, had been presented in different form to the Pathological Society in the early part of the session; and the question was put, whether it was not contrary to the rules of the Society to admit contributions which had already been brought forward at a sister Society. The paper under discussion will, it is understood, receive the attention of the Council; but it may be well to remark that, although the clinical and pathological features of a case may merit the consideration of both Societies, and be worthy of a place in both their *Transactions*, occasionally it does occur that the members of one Society have brought before them the details of one or more cases which have already received sufficient consideration elsewhere.

GUY'S HOSPITAL.

AT a Court of the Governors held on Wednesday, Mr. Bryant was appointed Surgeon, to fill the vacancy caused by the resignation of Mr. Cock; and Mr. Davies Colley, Assistant-Surgeon. At the same time, Mr. Cock was appointed Consulting-Surgeon, on the occasion of his retirement from the office of Surgeon and his more immediate connexion with the hospital, which has lasted over a period of nearly fifty years.

SCOTLAND.

A FEVER Hospital is about to be erected at Inverness, in connection with the Northern Infirmary.

DISPENSARY FOR SKIN-DISEASES AND THE NEW WESTERN INFIRMARY AT GLASGOW.

AT the annual general meeting held on the 12th inst., Dr. M'Call Anderson read the medical report. One thousand one hundred and one cases had been treated during the year, and fifty-four students had been enrolled. But the most important part of the proceedings was the announcement that the directors have come to an understanding with the University, by which accommodation for their in-patients will be provided in the Western Hospital in process of erection. The arrangement seems to be that the Skin Dispensary subscribes a certain sum to the building fund of the new hospital, in consideration of which special wards are to be furnished for the treatment of the diseases of the skin. The directors of the Skin Dispensary will have a right of admission for their patients into these wards, and also a voice in the election of the physician. The Dispensary which at present exists will continue in its present form for the treatment of the out-patients; only such as need in-door treatment are to be sent to the Western Hospital. We are glad that an opportunity will thus be given to the students attending Glasgow University of studying practically such an important class of diseases. We hope also that an agreement will soon be come to with those interested in the erection of a Children's Hospital, so that such an institution may be set up in the same grounds as the new hospital. It may be known to our readers that a fund is in existence for the erection of a children's hospital, and we may also state that in the ground acquired for the new general hospital there is sufficient room for another erection, and that the University authorities look with the greatest favour on the scheme. Should a few beds be put aside for diseases of the eye, Glasgow would then have in one place opportunities for clinical teaching such as few schools enjoy.

MEDICAL BURSARIES IN THE ABERDEEN UNIVERSITY.

WE are pleased to observe that Professor Struthers, who has taken the most active part in the matter, has received the support of the University Council in the appointment of a Committee to take steps to remedy the want of medical bursaries in the University. The glaring difference which has existed between the faculties of Arts and Medicine in the matter of bursaries has long been a matter of surprise, and it is the more marked when it is remembered that the Aberdeen University has gained no small share of its reputation from the high position which its medical school has occupied. The proposal of Dr. Struthers that the Committee should simply draw up a statement of the facts in the form of a report to the General Council, which should be printed, in order to attract public notice to this want of the University, and be put into the hands of every one desirous of founding medical bursaries for the University is, we think, the most feasible plan for bringing the matter before the earnest attention of the public.

THE INTERSESSIONAL PERIOD IN EDINBURGH.

THE usual lull in the interval between the winter and summer sessions is now being felt. Operations in the hospital are less frequent, and the students are in the agonies of their oral examinations for the degree. The programme for the summer session in the Extra-mural School is much the same as in former years. Dr. Angus Macdonald begins to lecture on Midwifery, Dr. Matthews Duncan having given up the summer course of lectures. Dr. Macdonald previously lectured on *Materia Medica* and *Therapeutics*; but now, occupying the important post of acting physician-accoucheur to the New Town Dispensary, he has the opportunity of giving his midwifery pupils both systematic and practical instruction. The friends of the female medical students have issued a protest against the conduct of the Managers of the Infirmary in refusing admission to clinical instruction to the female students, as proposed by their late scheme.

THE CURATORIAL COURT OF THE UNIVERSITY OF EDINBURGH.

IT will be gratifying to those who took an active interest in protesting against the constitution of the Court after the last election of a profes-

sor by that body, to learn that the Report of the Committee of Council appointed to consider the subject, and the substance of which we published last week, was approved of at the meeting of the General Council held on Tuesday, and that it was ordered to be sent to the University Court, with a request that the Court may take measures for obtaining the alteration in the constitution of the Curatorial body which the report recommends. The report is, we should think, not likely to meet with much opposition at the hands of the University Court; and, as the Town Council was consulted in the matter and offered no opposition to the scheme of the Committee, which, it will be recollected, recommends the addition of two members appointed by the University Council, we may hope that the suggested alteration in the constitution of the Court of Curators, although not so sweeping as we could have wished, may soon become law.

IRELAND.

DURING the last quarter only two persons were registered as dying from small-pox in Dublin. One came from London labouring under the disease, and *had not been vaccinated*; in the other case, *there was no vaccination mark*.

MEDICINAL APPLICATION OF WHISKEY.

We read in an Irish contemporary that, at a recent meeting of the guardians of the Banbridge Union, letters were read from three medical gentlemen who had been corresponded with on the whiskey question. Dr. Nicolls, of the Longford Workhouse, has not applied whiskey since the cholera visitation of 1848, and the change has tended to improve the sanitary and moral condition of the patients, nurses, and attendants: there are now no drunken nurses or attendants as formerly, and the mortality has decreased very considerably. Dr. Riggs, of the Armagh Workhouse, uses no whiskey, and is not aware of any influence on health arising from the disuse of alcohol. Dr. Davis, of Newry Workhouse, does not order whiskey medicinally for the sick, preferring beef-tea, sweet whey, and new milk, and the result is satisfactory. It was agreed that the medical officers of Belfast and Downpatrick Unions be requested to state the average consumption of whiskey, the number of patients, and the mortality.

SUPERANNUATION OF DR. BRADSHAW.

WE cannot but think that the Tipperary guardians lost sight of the principles of justice in discussing the superannuation allowance of Dr. Bradshaw. That medical officer has spent upwards of twenty-one years in their service, doing his duty in an exemplary manner, as they willingly acknowledge. In the arduous service of the State, he has lost his health, and retires broken in health. All that was said, therefore, of the temptations to retire on the magnificent allowance of £73, was beside the question, and raised a false issue. Age, long service, and broken health, are the plain answers to such insinuations; and, in awarding only £50 to Dr. Bradshaw, the guardians adopted a policy which, although superficially economical, is likely to prove dear in the end. It is the efficiency of the Poor-law Service of Ireland which prevents the sickness that lies at the root of the great mass of pauperism; and to have a contented and efficient staff of Poor-law medical officers is the most truly economical policy for Irish Poor-law guardians.

MEDICAL COMMISSION TO THE HEDJAZ.—The *Standard* states that the Ottoman government has sent, according to custom, a medical commission into the Hedjaz to superintend the execution of sanitary measures during the sojourn of the Mussulman pilgrims travelling to the holy cities. The body is to land at Djeddah and thence proceed to Mecca and Medina, to organise ambulances and hospitals. Vessels will also be stationed at that port, and also at Confounda and Suakim, to examine pilgrims on their return homewards, and to detain those affected by contagious diseases.

VACCINATION AND SMALL-POX.

SMALL-POX AT THE HARTLEPOOLS.

SMALL-POX has been very fatal here amongst the unvaccinated. Of 94 deaths reported to local board of health by Dr. George Moore, 86 were unvaccinated. Of the remaining eight it was "doubtful" whether vaccination had or had not ever been performed in four cases.

VACCINATION FROM SECONDARY LYMPH.

AT the last meeting of the Obstetrical Society, Dr. Brunton showed a wax model of a successful vaccination performed with the lymph from a secondary vaccination. Mr. Eastes remarked that, although occasionally lymph from a secondary vaccination might produce a good vesicle, still it could in general be by no means depended upon for that purpose. Mr. Wilkinson stated that he had on several occasions vaccinated with the lymph from a revaccination. Dr. Wynn Williams hoped that none of the Fellows of the Society would be tempted by the apparent success to follow the practice. It would be interesting to know whether vaccination performed from a secondary vaccination was any protection against small-pox. The President (Dr. Braxton Hicks) thought that, if anyone were exposed to the contagion suddenly, and only secondary lymph could be obtained, it should be used; but he held that the person should, as soon as convenient, be revaccinated with primary lymph. Mr. Scott had, from necessity, vaccinated a gentleman with secondary lymph, producing perfect vesicles. As he was much exposed to contagion, Mr. Scott revaccinated him in three weeks with primary lymph, and again vesication took place, but less perfectly.

REVACCINATION.

OUR Glasgow correspondent writes: In the Medico-Chirurgical Society on the 7th instant, Dr. Gairdner, as city medical officer, stated the arguments in favour of revaccination. One was that, in some cases, from imperfections in the first operation, the primary cicatrices are unsatisfactory; the other, that the protective power of vaccination probably undergoes impairment as years pass on. Considerable differences existed in the proportions of successful results obtained after revaccination by subsequent speakers. Some had been successful in almost every case; others had about fifty per cent. of failures; some only a very small proportion of success. By some, a typical vesicle was demanded as in primary vaccination; by others, anything like a vesicle, though it matured sooner than in primary vaccination. It seemed clear, and was explicitly stated with accompanying statistics by Dr. Perry, that in a large proportion of cases revaccination is so far successful as to produce a good vesicle, but that this matures about the fifth or sixth day, and so runs a much quicker course than in primary vaccination. On the other hand, in a small proportion of cases only is the whole course normal. This difference as to criteria did not, however, altogether account for the very various success of different practitioners; some even stated that, though they had revaccinated a great many persons, they had scarcely ever seen a decent vesicle. Several of the speakers also remarked the frequency with which enlargement of the axillary glands, and constitutional disturbance, occurred after revaccination.

A TEST OF SUCCESS IN REVACCINATION.

SIR,—It is many years since I had occasion to remark that, among other circumstances distinguishing primary vaccination from secondary or revaccination, there occurs in the latter a great variety in the effect produced by the insertion of the vaccine virus, both as to the amount of irritation, and as to the time elapsing between the operation and the commencement of its specific effect, as indicated by the appearance of the points of puncture. This specific irritation is occasionally so slight as to suggest to the mind, as well of the patient as of the surgeon, a doubt whether the operation may not have been a failure. It has been long my practice in performing revaccination, to make three punctures, or rather three small groups of punctures, one with a clean lancet, and two with a lancet charged with vaccine lymph. I thus secure a means of comparison entirely satisfactory to my own mind, as well as to that of my patient, as to the success or failure of the operation. Of this success I am only satisfied when there is a sensible difference in the progress and appearance of the three groups of punctures. Were there no apparent difference between them, I should call it a case of failure, and should certainly recommend a repetition of the operation, believing that, unless we have an evidence of the specific effect from the insertion of the specific virus, the patient has not had, either as a test or as a measure of protection, the benefit of revaccination. I am, etc.,
Peterborough, 15th April, 1871.

THOMAS WALKER.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A SPECIAL meeting of the Committee of Council will be held at the Freemasons' Tavern, Great Queen Street, Lincoln's Inn Fields, London, on Wednesday, the 3rd day of May, 1871, at 10 o'clock A.M. *precisely.*

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary.*
13, Newhall Street, Birmingham, April 10th, 1871.

YORKSHIRE BRANCH.

THE spring meeting of the above Branch will be held at the Queen Hotel, Harrogate, on Wednesday, April 26th, at 2 P.M.

The members will dine together at 4.30 P.M. Tickets (including dessert and coffee), 6s. 6d. each.

Gentlemen intending to join the dinner, or bring forward any communication, are requested at once to communicate with the Secretary.

W. PROCTER, M.D., *Honorary Secretary.*
York, April 14th, 1871.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL AND CLINICAL SECTION.

THE next meeting of the Section will be held on Friday, April 28th, at the Midland Institute, Birmingham. The Chair will be taken at 3 o'clock *precisely.*

BALTHAZAR W. FOSTER, M.D., } *Honorary Secretaries.*
T. VINCENT JACKSON, }
Birmingham, April 18th, 1871.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

THE next meeting will be held at the Union House, Dartford, on Tuesday, May 2nd, at 4 P.M. The President of the Branch will take the Chair.

Dinner will be provided at the Bull Hotel at 6.30.

Cases, papers, etc., on Puerperal Mania, Tumours of the Abdomen, and Life Assurance.

FREDERICK JAMES BROWN, M.D., *Honorary Secretary.*
Rochester, April 20th, 1871.

CUMBERLAND AND WESTMORLAND BRANCH.

THE spring meeting of the above Branch will be held at Kendal, on Wednesday, May 3rd, 1871; THOMAS F. L'ANSON, M.D., President, in the Chair.

Gentlemen intending to be present, or to read papers, are requested to communicate with the Secretary without delay.

HENRY BARNES, M.D., *Honorary Secretary.*
Carlisle, March 29th, 1871.

CAMBRIDGE AND HUNTINGDONSHIRE BRANCH.

A MEETING of the above Branch will be held at the County Hospital, Huntingdon, on Wednesday, May 3rd, at 2 P.M.; MICHAEL FOSTER, Esq., in the Chair.

Dinner at the George Hotel at 5 P.M. Tickets 13s. each.

Gentlemen intending to read papers, or to be present at the dinner, are requested to communicate with the Honorary Secretary.

J. B. BRADBURY, M.D., *Honorary Secretary.*
Corpus Buildings, Cambridge, April 1st, 1871.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT MEDICAL MEETINGS.

THE May meeting of members of the above District will be held on Wednesday, May 10th, at 3 P.M., at the Maiden's Head Hotel, Uckfield: HENRY HOLMAN, Esq. (East Hothly), in the Chair.

Gentlemen willing to contribute papers, etc., will greatly oblige by letting me know at their earliest convenience.

Dinner will be provided at 5.15 *precisely.* Charge 5s., exclusive of wine.

FREDK. CHAS. MUDD, *Honorary Secretary.*
Albion Villa, Uckfield, April 19th, 1871.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETINGS.

THE annual meeting of the members of the above District will be held at the Fountain Hotel, Canterbury, on Thursday, May 11th, 1871, at 3 o'clock: the President of the Canterbury Book Club in the Chair.

Dinner will be provided at 5 o'clock *precisely.* Charge, 5s., exclusive of wine.

All members of the South-Eastern Branch are entitled to attend, and to introduce friends.

Gentlemen who wish to make communications to the meeting, are requested to inform me *at once*, in order that a notice thereof may be included in the circular convening the meeting.

CHARLES PARSONS, M.D., *Honorary Secretary.*
2, St. James's Street, Dover, April 17th, 1871.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 11TH, 1871.

T. B. CURLING, ESQ., F.R.S., PRESIDENT, IN THE CHAIR.

ON A CASE OF RETROGRESSIVE LABIO-GLOSSO-LARYNGEAL PARALYSIS. BY ALEXANDER SILVER, M.D.

(Communicated by DR. HYDE SALTER, F.R.S.)

THE patient, W. G., was a man aged 53, a carriage-smith, twice married, and temperate. He had been generally healthy, but in his history there were certain facts pointing to syphilitic infection. He had been an in-patient at the Middlesex Hospital for incomplete right hemiplegia and left facial palsy, with difficulty and indistinctness of speech. He was gradually recovering, when he was again seized. On the morning of January 5th he was able to swallow his breakfast and to speak indistinctly. By noon on the same day he could neither speak nor swallow; the right corner of his mouth was drawn downwards, and an abundant tenacious saliva flowed from it. He was brought to Charing Cross Hospital, where he was seen by Dr. SILVER. When admitted, his right eyelid drooped, and his mouth was dragged over to the right side; his lips were thick and blubber-like; and from the depressed corner of his mouth flowed an abundance of thick viscid saliva. He could not close his mouth, even imperfectly; he could not protrude his tongue beyond his teeth. There was some paralysis of the soft palate, for his respiration was snorting; but food or drink did not regurgitate through his nose. His intelligence was perfect; but, when he attempted to speak, only the rush of air through the open powerless larynx could be heard. He had complete command over his limbs; he could lift both legs off the bed, and smartly withdrew either when its sole was tickled. His senses were perfect, but dull. His bowels were obstinately confined. His breathing was very imperfect and shallow; it was mostly abdominal, but there was slight action of the intercostal muscles. Expiratory power was most deficient. The respirations were 36 a minute; pulse 120, and very feeble. His appetite was unimpaired and his power of taste uninjured; for a time he was fed solely by the stomach-pump. Notwithstanding the quick pulse and rapid respiration, his temperature for long remained at 97 degs. in the axilla. From his admission up to the time of the report the patient improved. As to treatment, iodide of potassium was given in scruple doses three times a day. Occasional blisters were also applied to the back of his neck; and latterly localised electrification was employed to exercise the paralysed muscles, which responded to the stimulus with unusual facility. The case was called *retrogressive* to distinguish it from the *progressive* form of the malady, to which alone Duchenne de Boulogne would limit the name of *true* labio-glosso-laryngeal paralysis. This form tends to recovery, whilst that referred to by Duchenne ends invariably in death. (For a sample case of the latter, see the *Archives de Physiologie Normale et Pathologique* for July and August, 1870.) The name was the more appropriate, as the case in many respects closely resembled one of the progressive variety read backwards. The state of this patient at first seemed identical with that of one suffering from the progressive form of the disease just before its fatal termination; but, the tide once fairly turned, there was a chance of recovery, however gradual. These different morbid conditions evidently depended on lesions of certain nerve-trunks or roots. Thus the paralysis of the lips would imply paralysis of a portion of the facial on both sides, apparently more on the left side than on the right. Again, the paralysis of the muscles of mastication implied loss of power in the motor branch of the trigeminus; that of the tongue—inability to protrude it beyond the lips—paralysis of the hypoglossal. The inability to swallow, and the respiratory and cardiac complications, pointed to the

implication of the vagus; whilst the loss of voice was due to paralysis of the cerebral portion of the spinal accessory. One section of the medulla oblongata made and figured by Dr. Lockhart Clarke illustrated this. In it were displayed the hypoglossal and spinal accessory nerves springing from their nuclei, and lying between those and the central canal, the cut band of fibres constituting the long root of the facial. Injury to the medullary substance at this level would inevitably occasion more or less loss of voice, both as regarded articulation and phonation, with paralysis of the orbicularis oris. Higher up, where the hypoglossal nucleus had almost disappeared, there was another descending band, closely connected with the descending band of the facial, at this level greatly increased in bulk. This new band constituted the descending or motor root of the trigeminus, which was thus brought into exact accord with the facial and hypoglossal. At first the most dangerous symptoms were cardiac and respiratory, and this imperfect action of the heart and lungs was exactly what followed the section of the pneumogastriacs in one of the lower animals. Their inhibitory action on the heart was thus removed. Here, therefore, the nerve affected would seem to have been the vagus, at its nucleus rather than in its course. Finally, a partial paralysis of the chorda tympani, and a withdrawal of its influence from the sub-maxillary gland, might, by overturning the normal balance between it and the sympathetic, produce a flow of thick and tenacious, instead of normal, saliva, and so relegate the phenomenon to the same site as the others—that is to say, a minute space on the floor of the fourth ventricle and upper portion of the medulla oblongata.

Dr. DRYSDALE said that cases such as that described by Dr. Silver were met with as the result of syphilis. He had seen in the Metropolitan Free Hospital a patient suffering from roseola of the corona veneris, who was speechless; the case was, however, probably one of aphasia. In Paris, he had seen a case more similar to that described by Dr. Silver. He thought that the condition described by Dr. Silver was to be ascribed to a syphilitic deposit on the left side of the base of the brain.—Mr. BARWELL had seen, with M. Duchenne de Boulogne, four or five cases of glosso-labial paralysis. He asked whether Dr. Silver had made out that the muscles closing the jaw remained apparently active to the last in progressive paralysis, while those that draw the jaw from side to side were affected at an early stage of the disease. The external and internal pterygoids were both supplied by the same nerve; and M. Duchenne had tried to explain the phenomenon by the different heights at which were placed the ganglia of origin of the branches of nerves going to these muscles.—Dr. BROADBENT had from the first considered that Dr. Duchenne had put observers on a wrong track, by directing attention to a particular course of disease as a pathological entity. He had seen a case the symptoms of which agreed with those described by Duchenne and Trousseau; the disease, however, came on suddenly, with loss of power of the laryngeal muscles, and did not progress to worse, but remained stationary. Dr. Duchenne had stated that the expiratory movements were paralysed, as shown in the inability to cough or sneeze: the difficulty in performing these actions, however, lay in impaired inspiration, and in the imperfect closure of the larynx. There was, indeed, very little active muscular work in expiration; and the weakness of this process was due to the antecedent weakness of inspiration. As to the seat of the disease in his case, Dr. Silver would assign it to a very limited region in the medulla oblongata. Dr. Broadbent thought that the lesion was not limited to a transverse portion of the medulla, but lay rather in the middle line; and this had a bearing on the question of pathology. In Duchenne's disease, there was degeneration of the portion of nervous matter including the nuclei from which the affected nerves arose; but in Dr. Silver's case there was no evidence of this, only of some injury, which was followed by recovery. What was the nature of the injury? The idea of a syphilitic node was out of the question; for this must have involved other parts besides those evidently affected. It was not easy to understand the presence of any ordinary syphilitic disease of the brain, nor how a hæmorrhage could be so limited, although it might be supposed that there was a small clot of blood in the furrow of the fourth ventricle. In this part, too, there were no tissues liable to syphilitic changes. He had no doubt that Duchenne's explanation of the affection of the internal and external pterygoids was correct—that a part only of the elongated nucleus of the fifth nerve might be affected.—Dr. JOHN HARLEY suggested that, in the explanation of Dr. Silver's case, attention should be directed to general causes, perhaps specially affecting the centres in the fourth ventricle.—Dr. SILVER said that he had intended to bring the patient to the meeting, but had been prevented by the weather. The history of the case pointed to syphilis; but there was a doubt as to this, and the lesion might be hæmorrhagic. Dr. Silver referred to and explained some drawings copied from Dr. Lockhart Clarke, showing the nuclei in different sections made at different heights, with the

view of showing that the lesion could not depend altogether on height.

ON AMPUTATION OF THE CANCEROUS BREAST.

BY ROBERT LEE, M.D., F.R.S.

THE object of this communication was twofold—first, to describe a case in which a woman, from whom both mammae had been removed, was delivered of a child; and, secondly, to point out the different opinions of eminent surgeons and physicians as to the desirableness of amputating the breast in cancer, the danger of the operation, and the frequency with which it is needlessly performed.

Mr. SPENCER WELLS could not understand whether the disease in the last mentioned case was supposed to be cancer or not.—Dr. R. LEE said that in the first case the patient was operated on from fear of hereditary cancer; in the second, he did not believe that the disease was cancer at all. The operation for removal of cancer, according to modern surgeons, was always followed by return.—Dr. JOHN HARLEY did not know a single case of ultimate recovery after removal of a scirrhus breast; he did not know even that the operation prolonged life. As a physician, who was sometimes consulted as to the propriety of operating in cases of cancer, he would like to hear the opinion of surgeons as to the chances of success.—Mr. BARWELL said that statistics collected from various sources showed that, in properly chosen cases, the life of patients suffering from cancer was prolonged by operation. He had had two cases, in one of which seven years, and in the other ten years, had elapsed without a return of the disease.—Mr. HULKE would never hesitate to operate where the diseased breast and glands could be fairly removed. There was no doubt that operation tended to prolong life and to lessen the sufferings of the patient.—Mr. BIRKETT thought that no case of alleged cancer should be brought forward without a full history. He had refrained from publishing his own cases, because they were not complete. Dr. Lee's first case he believed not to have been one of cancer at all: perhaps the disease was a fibrous growth or a chronic abscess. It was well known that every woman with a tumour in the breast thought that she had cancer. As to the symptoms observed during pregnancy, they might be explained by supposing that the whole of the breast was not removed, but that the peripheral portion was left and underwent the usual changes—the milk, however, being of course unable to escape. The question of recovery after operation from cancer could only be worked out by statistics. In patients operated on under the age of thirty, and in whom the disease did not return, it was probably not cancer. After the age of forty, cancer returned after removal. He agreed that by operation in early stages life was prolonged and much suffering prevented; and this result might be produced by operation even when ulceration was commencing. He had known cases where the patients had lived as long as ten years without a return of the disease; their lives being thereby rendered happier. He regretted that Dr. Lee had brought forward such a paper as that which had been read.—Mr. J. D. HILL referred to a case where life had been prolonged thirteen or fourteen years by operation.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 5TH, 1871.

J. BRAXTON HICKS, M.D., F.R.S., President, in the Chair.

Dr. GRAILY HEWITT exhibited a child whose forearm had probably undergone Amputation *in Utero*.—Dr. WILTSHIRE said it would be interesting to know what became of the parts amputated.—Dr. BARNES observed it was not often strangulation by the umbilical cord, but by a string of false membrane, that caused amputation. He had a drawing of a case in which amputation was in progress. In the case exhibited, there was, as in most instances, a budding of a new limb from the stump, analogous to what was observed in some of the lower animals which had lost a limb. He regarded this budding, with the sign of cicatrix, as proof of amputation in the early stage of development.—Mr. SCOTT thought that, if such cases occurred, they were the exception. He knew a family in which the grandfather and the grandson had both forearms wanting.

Dr. WYNN WILLIAMS exhibited a Mole or blighted ovum passed by a lady supposed to have been three months pregnant. It had the appearance of a fleshy ball, and when cut into, was hollow, with veins or sinuses in its interior filled with blood.

Dr. WESTMACOTT related the history of a case of Miscarriage with Triplets at the third month, and exhibited the embryos.

Dr. BARNES exhibited two Instruments which he had found of great service. The first was a modification of Lallemand's *Porte-Cautique*, designed to carry into the uterus a stick of sulphite of zinc. The second was a Speculum for the purpose of facilitating the introduction of medicated pledgets of cotton-wool into the vagina.

Dr. WYNN WILLIAMS showed a patient, nearly the whole of whose lower lip had been removed for Epithelioma eighteen months previously. The disease shortly appearing in the cicatrix, the growth was successfully treated by two injections of bromine—twenty drops to a drachm of spirit. There was no appearance of disease at present.

Dr. PROTHEROE SMITH exhibited an Ovarian Tumour which he had removed on the preceding Saturday. The cyst was practically unilocular, but on its right side were three hard nodules, the microscopical examination of which led to the belief that they were of a malignant nature. The patient was doing well.

A resolution was then proposed by Mr. BARNES, seconded by Dr. G. C. MURRAY, and carried unanimously, expressing the regret felt by the Society at the loss of Professor Pietro Lazzati, a foreign Honorary Fellow, and its sympathy with the late Professor's relatives and friends in the great loss which they had sustained.

Dr. EDIS read the history and *post mortem* appearances of a case of Abscess of the Ovary and Tubercular Disease of the Fallopian Tubes.

Dr. MEADOWS communicated, for Mr. CRADOCK of Shepton Mallet, the particulars of a case of Occluded Vagina after delivery, with subsequent retention of menses, cured by operation.

A paper on the Sickness of Pregnancy, its Cause and Treatment, by Dr. GRAILY HEWITT, was read. The sickness observed in pregnancy had generally been accepted as an inevitable circumstance. The causes of its occasional inveteracy and even danger had never been satisfactorily made out; and the treatment had not been conducted on any one principle. Yet an analogous cause must be in operation in the slight cases and in the more severe forms. At present, the general professional opinion was, that it was due to the distending effect of the increasing contents of the uterus, exciting in a reflex manner the act of vomiting. The author, accepting this view, propounded the theory that the existence of flexions of the uterus was the prime causal factor to the vomiting of pregnancy in by far the majority of instances, inasmuch as it offered an additional hindrance to the proper expansion of the uterus, and, by mechanical pressure on the sensitive uterine tissue, produced in most cases reflex irritation. This theory would account for the mild and the severe forms of the symptoms. The author was led to this conclusion by observation of the close connexion between obstinate nausea and vomiting, and flexion associated with distension of the uterus in the non-gravid state, as in cases of dysmenorrhœa produced by flexion. Latterly he had applied this explanation to the gravid cases; and the clinical facts which he had accumulated appeared very completely to bear out the general truth of the theory. An anteflexed gravid uterus was most commonly the condition present, the anteflexion having existed before the pregnancy; retroflexion of the gravid uterus was much less common, because the retroflexed uterus was less liable to become impregnated. Very obstinate sickness occurred generally from the second to the fourth month, when the uterus was sometimes found tightly fixed in the pelvis. How far the explanation would apply to cases where the pregnancy was more advanced, the author could not say, not having had cases to test the matter. The slight cases, where the sickness was limited to the time of rising from bed, were explained by the action of gravity, the erect posture suddenly bending the uterus on itself to a slight extent. Undoubtedly, whatever tended to hinder the expansion of the uterus might equally induce sickness. The results of measures to restore the organ to its proper shape had been found very successful. Sometimes maintenance of the horizontal position alone was sufficient; in other cases, mechanical supports, elevating the fundus anteriorly or posteriorly according to circumstances, were used. —Dr. BARNES said that displacement of the uterus was an old theory as to the cause of vomiting in pregnancy. He could, however, state from many precise observations that flexions of the gravid uterus were often present without any unusual vomiting, and that most obstinate vomiting occurred where there was no flexion. The theory of the stretching of the uterine fibres out of proportion to their growth had been most distinctly set forth by Bretonneau of Tours. Many facts concurred in proving its truth. When vomiting had once become excessive, the defective nutrition was attended by impoverishment of the blood; and the blood was further degraded by the absorption of noxious material from the system. Concurrently with this, the habit of vomiting induced a morbidly irritable state of the spinal cord, so that it readily responded to the slightest peripheral or emotional excitation. —Dr. TILT denied that vomiting was any more caused by flexions of the gravid than by displacement of the unimpregnated uterus. Uncomplicated uterine malpositions had no symptoms. In the case referred to in the paper, the cure was attributed to rest in the horizontal posture—a remedy of general use. Dr. Tilt thought the proposed practice of restraining the sickness of pregnancy by the use of pessaries likely to lead to disastrous results.—Dr. WYNN WILLIAMS thought the sickness might be aggravated by the unequal distension resulting

from flexions of the uterus. In the later months of pregnancy, the sickness was generally due to pressure on the abdominal viscera, more especially the liver.—Dr. PLAYFAIR had heard Dr. Hewitt's proposal to apply mechanical supports to the gravid uterus with some alarm. He did not doubt that some degree of sickness was a perfectly healthy phenomenon in pregnancy. Sickness was much more severe, as a rule, in first pregnancies; flexions, on the other hand, were most common in multiparæ. Again, it was by no means rare for sickness to continue beyond the fourth month, and then flexions could but very rarely exist. —Dr. WILTSHIRE had been informed that the hypothesis brought forward by Dr. Hewitt had also been propounded by Professor Krasovsky of St. Petersburg.—Dr. SNOW BECK said that, in cases of pregnancy attended with anteversion and retroversion, sickness was not more frequent than where no deviation was present. Much stress had been laid on anteversion; but he was unable to see anything to prevent the uterus from rising in the usual way. He denied the existence of stretching and thinning of the uterine tissue at the seat of version, the constriction of the blood-vessels and consequent congestion, and the assumed pressure on the nerves. Further, the nerves at the seat of flexion were not those concerned in the production of sickness; for affections of the fundus of the uterus were those generally attended with sickness.—The PRESIDENT's experience did not coincide with Dr. Hewitt's. He believed that tension of the uterus was the chief cause, as shown by the immediate relief afforded in some cases when the membranes were ruptured; but he certainly thought with the author of the paper, that the retroflexion and anteflexion favoured the pressure. The act of vomiting probably tended to increase the displacement.—Mr. SCOTT said that, in the most severe case which he remembered, the sickness continued to between the sixth and seventh months, when flexion could not be a cause. He had frequently seen cases of retroflexion in pregnancy without sickness.—Dr. GRAILY HEWITT said that it must be evident that the uterus could not be acutely bent at the cervix without compression of its tissues on the concave side of the bend. He was not aware that the theory had been advanced in this shape by any previous author. With Dr. Barnes, he believed, and had stated, that the distension of the uterus was the cause; but whether it operated by compression of the nerves or by stretching of the muscular fibres, was a question. He himself believed the former to be the true explanation. He recommended caution in the use of pessaries. That best adapted for the anteflexed cases was the globular air-pessary. The fact that sickness was most common in primiparæ was quite in conformity with the theory advanced. It must, however, be recollected that he did not contend that every case of sickness would be found to be a case of flexion; nor would every case of flexion be attended with sickness.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 4TH, 1871.

J. HILTON, Esq., F.R.S., President, in the Chair.

A REPORT was read by Mr. HULKE from the Committee on Mr. Wagstaffe's specimen of Fibrous Tumour of the Heart. The report entirely agreed with Mr. Wagstaffe's description.

Mr. BALMANNO SQUIRE exhibited a living specimen of Elephantiasis Græcorum from Pondicherry, East Indies. The patient was twenty-four years of age, but looked fifty, and the disease was of seven years' standing. The history of the case supported the view that hereditary causation was not essential, if there was such a cause at all, the disease being due to climate.—Dr. TILBURY FOX thought that the disease was propagated by intermarriage. Many of the cases sent home were cases of syphilis and not of elephantiasis.

Mr. FREDERICK CHURCHILL exhibited two tumours of the nature of Mole Transformations, both limited to the cutis, and not associated, as far as could be ascertained, with similar growths elsewhere.—Mr. FRANCIS MASON referred to a warty growth removed by him, and recently described in the BRITISH MEDICAL JOURNAL.—Mr. CHURCHILL explained that the interest of the tumours consisted in their being both developed from moles, and not from warts.—Mr. HULKE mentioned a case of melanotic sarcoma which he had seen under the care of Sir William Fergusson, in which the normal pigment disappeared from several parts. He had noticed this in other cases.

Dr. WHIPHAM exhibited a Tumour of the Liver which, he thought, presented many of the microscopical characters of epithelioma. Both ovaries were diseased, but there was no recent malignant affection of their structure.—Mr. ARNOTT was unable, from the histological characters described, to agree with Dr. Whipple that the case was one of epithelioma. Referred to the Committee.

Mr. HULKE brought forward a large Medullary Tumour of the Belly

with a similar Tumour of the Orbit of doubtful duration, taken from the body of a child two and a half years of age. The child suddenly died. There was found after death also a white mass in the lung, which could be enucleated, and the mediastinal and abdominal glands were enlarged. There were numerous extravasations of blood into the tumours and into various parts of the body. The tumours were histologically seen to be composed chiefly of cells like white blood-corpuscles. Perhaps it was a glioma, arising from the semilunar ganglion.—Dr. HARE remarked that cancer in children was often of many years' duration.—Mr. HULKE, in answer to Mr. JOHN CROFT, said that there were present the slight elevations of the temperature showed in pyæmia; and replied to Mr. FAIRLIE CLARKE that the cause of death was probably due to hæmorrhage into the cavities. Referred to the Committee.

Mr. FREDERICK CHURCHILL brought forward a specimen showing the effects of Ether Spray on the skin in Addison's Disease. He had tried the experiment to ascertain if it was due to partial stasis of blood in the venous capillaries. The bronzed appearance disappeared while the skin was frozen, but returned when the circulation was restored. The same result was not obtained in the case of a negro. Two months afterwards, the frozen portion of the skin had desquamated, including the epidermis with its pigmentary layer, exposing a patch of blanched skin, which appeared to retain the usual elements, except the pigmentary layer.—Dr. GREENHOW asked if a cicatrix had formed, and observed that if so, the result would be explained, because the epidermis would be destroyed; if it were not destroyed, irritation had been observed to deepen the colour.—Mr. CHURCHILL replied that there was no cicatrix, and that the pigmented part faded into the blanched tissues.—Dr. MURCHISON suggested that the cold might have paralysed the nerves of the part, and prevented the deposit of fresh pigment.—Mr. CROFT observed that the effect of cold was to paralyse the superficial nerves of the epidermis, and render the colour lighter.—Mr. CHURCHILL, in answer to the PRESIDENT, replied that he could not say whether the temperature had been maintained.

Dr. MURCHISON brought forward a specimen of Typhoid Ulceration of the Intestine from the body of a man, who had died from fatal hæmorrhage into the intestine on the twenty-seventh day of the disease, and in whom there had been constipation. He brought forward the case—not a very unusual one—to disprove the common notion that continued fever with constipation is typhus, and with diarrhoea, typhoid fever. The case presented numerous other interesting clinical features.—Dr. DOUGLAS POWELL observed that the remarks of Dr. Murchison applied in many cases to ulceration of the intestines in phthisis, even when the ulcers are old.

Dr. MURCHISON also exhibited a specimen showing Perforation of the Appendix Vermiformis consequent on an accumulation of vegetable and faecal matter, taken from the body of a girl who died six days after symptoms of acute peritonitis commenced. It had been shown by Dr. Crisp that this occurrence was much more common in males than in females.—Dr. CRISP said that he thought it to be due to the fact that boys use the right leg, as in foot-ball, more than girls.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, MARCH 15TH, 1871.

J. H. BENNETT, M.D., F.R.S.E., in the Chair.

Dr. MUIRHEAD showed a portion of the Ileum of a woman who had died of Pyæmia. It was covered with a pseudo-membranous exudation of a croupous nature. In some parts it appeared to have assumed a diphtheritic character, particularly over some of Peyer's patches near the cæcum. Metastatic abscesses were found in the liver and lungs. The starting point of infection seemed to have been in the right ovary, in which an abscess was found which communicated through a large dilated Fallopian tube and with the uterus.

Dr. T. J. MACLAGAN, of Dundee, read a paper on the Nature of the Intestinal Lesion of Enteric Fever. The chief facts or propositions brought out he summarised as follows. 1. The intestinal lesion of enteric fever is specific in character. 2. It may terminate in resolution or ulceration. 3. When it goes on to ulceration there are two sets of lesions, primary and secondary. 4. The former are an essential part of the disease. 5. The latter are accidental, and the result of the inoculation of healthy glands by discharges coming from the former. 6. The recognition of these two forms of lesion is necessary to the explanation of the diverse phenomena of the disease. 7. Their relative frequency varies in different cases. 8. The extent of the primary lesion bears a direct relation to the severity of the attack. 9. That of the secondary bears no such relation, they being more likely to predominate in cases in which the general symptoms are mild, and the primary lesions few. 10. One primary lesion is sufficient to produce, directly

or indirectly, many secondary. 11. The higher up in the intestine the primary lesions are situated, the more numerous, *ceteris paribus*, will be the secondary. 12. Fatal abdominal symptoms are more often the result of secondary than of primary lesions. 13. Relapses are caused by a reabsorption of the poison into the system, probably by one or more absorbent glands which escaped during the primary attack. 14. Constipation is to be regarded as a source of ultimate danger. 15. No one suffering from enteric fever should go more than two days without a stool.—Dr. SANDERS, after complimenting the author on his paper, stated that the expressed view as to the inoculability of the fever did not altogether explain the predominance of lesions at the lower part of the small intestine, also the variety of the affection of the glands of the cæcum.—Dr. BENNETT referred to the researches of Mr. Goodsir in 1842, as shewing that the different morbid appearances observed were really different stages of the same lesion; also to the observations of Dr. William Budd of Bristol on the subject.—Dr. MATTHEWS DUNCAN and Dr. MACLAGAN also made observations.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, MARCH 18TH, 1871.

JAMES STANNUS HUGHES, M.D., President, in the Chair.

Mr. H. ROSBOROUGH SWANZY presented the drawing of a Dermoid Tumour of the Cornea, which he had observed at the clinique of the late Professor von Graefe. The swelling was congenital, and consisted of two segments connected by a narrow band. The anterior segment was about the size of a large cherry, and the posterior one less than half that size. This was probably the largest dermoid tumour of the cornea that had been described. It was likely that the peculiar shape of the growth had been determined by the constriction to which it must have been subjected by the eyelids *in utero*. The base of the posterior segment covered the whole cornea with the exception of a small portion, a line in width, at the inside. The tumour was removed by Professor von Graefe, and an aperture in the globe was left where the base of the tumour had been situated. Through this opening a considerable portion of the vitreous body escaped, but no crystalline lens could be found. The latter must, therefore, have been congenitally deficient. Microscopically, the tumour consisted of all the elements, more or less developed, of true skin—hair-follicles, papillæ, etc. Its main bulk was composed of adipose tissue corresponding to the usual subcutaneous fat. Mr. Swanzy suggested that this growth might perhaps have had its origin in an arrested, or diverted, development of the crystalline lens, which we know takes place by the inversion and invagination of a portion of the cuticle in a depression of the primary optic vesicle.

Mr. R. ADAMS exhibited a specimen of advanced Strumous Disease of the testicle, occurring in a man aged only 21, and running a course of twelve months. The patient's appearance was typical of the strumous diathesis, though he enjoyed good general health. The symptom of pain was almost absent, any uneasiness that was felt being due to the weight of the tumour, which was eight inches in its longitudinal diameter, and thirteen inches in circumference. Mr. Adams described the pain which often accompanies similar cases as being of a peculiar *darting* character, and lasting from ten to fifteen minutes, the paroxysm being followed by an interval of comparative ease.

Dr. QUINLAN showed a large Ovarian Cyst which he had removed a few days previously. In consequence of strong adhesions having been detected when the patient first came under notice, the palliative operation of tapping had been preferred to the removal of the cyst. However, the patient's strength was giving way, and it was determined at length to perform the radical operation. The usual steps were taken, and forty-one pints of a turbid brownish fluid were drawn off by Spencer Wells's trocar. The reaction of the contents of the cyst was alkaline, the specific gravity was 1023, and albumen was present in large quantities. The difficulties attending the operation were enhanced by the existence of numerous strong adhesions. The pedicle of the tumour was very long. Peritonitis unfortunately set in, and proved fatal in a short time.

Dr. F. CHURCHILL, jun., presented two Supplemental Fingers which he had removed by a ligature from the hands of an infant aged 8 months. At the top of both abnormal growths, rudimentary nails were observed.

Mr. JOHN MORGAN showed a Fractured Femur taken from the body of a man who had fallen twenty feet on the right side, and had received injuries of which he died. Enormous extravasation of blood had taken place into the soft parts surrounding the broken bone. Both trochanters were detached, and a tendency to impaction of the neck of the femur was remarked. The degree of shortening was very considerable, amounting to three inches and a quarter.

Dr. H. EAMES presented the lungs of a man who had died from Hæmoptysis in advanced Phthisis Pulmonalis. In the apices of both

lungs were extensive cavities, and throughout the pulmonary tissue isolated depositions of miliary tubercle were noticed. Hæmorrhage, which was the immediate cause of death, had proceeded from one of the nutrient arteries of the lung.

CORRESPONDENCE.

THE BEAUPERTHUY TREATMENT OF LEPROSY.

SIR,—Those of the profession who, like myself, are frequently brought into contact with the great exanthematous leprosy, the elephantiasis Græcorum, will be glad to hear from the address of Sir James Alderson, published in your column, that at the instance of the Colonial Secretary, Lord Kimberley, a medical commission is about to be sent out to the West Indies to investigate Dr. Beaupérthuy's treatment of that disease, and that the selection of a Commissioner for the purpose has resulted in the appointment of so trustworthy and experienced a physician as Dr. Milroy.

It will be in the remembrance of your readers that several years back, in a paper read at one of the Association meetings, I called the attention of the profession to the importance "of providing medical asylums for the lepers imported into this country from our colonies;" and I incurred the anger of a distant county by an inquiry as to the application of certain funds which many years ago had been dedicated to the support of such an asylum, one of the ancient leper institutions of Great Britain. I did not seriously expect that there were any such funds available at the present time; but it was not useless to set inquiry on foot in order to show that there existed a precedent for such institutions, and to suggest that sooner or later something of the kind might be wanted again.

Should Dr. Milroy, on his return to England, report favourably of Dr. Beaupérthuy's treatment, an institution of some kind, however humble, will be required to give effect to the method under consideration, inasmuch as daily inspection of the patient is called for, together with daily manipulation in some shape or another. It may be as well to remember that Dr. Beaupérthuy's is not the only "cure" of this terrible disease at present before us. More recently the "cure" of Dr. Bhau Daji of Bombay has been spoken of by the Indian journals; and I have myself challenged further information on the subject. It might possibly be desirable that, while a commission is being organised for the West to investigate the subject there, another commission should be appointed for the East with a similar purpose.

The case of the East is one of considerable urgency; instances of elephantiasis Græcorum from Hindostan are not unfrequently coming before European practitioners for treatment, in the persons of Europeans, some of whom have apparently received the disease by contagion, while in others the cause is very probably endemic. Of the contagion of elephantiasis under favouring circumstances I feel thoroughly convinced; and I make no doubt that this question, as well as the Beaupérthuy treatment, will receive the attentive consideration of Dr. Milroy.

Of the probable success of Dr. Beaupérthuy's treatment I expressed myself very doubtfully in a commentary on this and Dr. Bhau Daji's method, published nearly three years ago in the *Journal of Cutaneous Medicine*, vol. ii, p. 444. I have, however, recently, through the courtesy and liberality of Dr. Bakewell of Trinidad, had the opportunity of seeing the process in operation, and of watching its effects. For the results I am looking forward very anxiously, but at present an opinion would be premature. Dr. Bakewell acquired his knowledge of the treatment from Dr. Beaupérthuy himself, and is much impressed with its value; he states that he has seen patients restored to their family and society by the means employed. Dr. Bakewell published the details of the treatment about twelve months ago; the remedies chiefly used being the perchloride of mercury in small doses internally, with a nutritive and generous diet; and the local application of a powerfully stimulating oil, namely, that of the shell of the cashew-nut, the *anacardium occidentale*.

That we should be without a treatment or a remedy for such an ancient disease as the Greek leprosy is very remarkable, and particularly so when we recognise the ascendancy that we have obtained over its congeneric affection syphilis.—I am, etc.,

April 15th, 1871.

ERASMUS WILSON.

ON THE TEMPERATURE OF THE BODY IN TETANUS.

SIR,—When bringing before the Clinical Society, on the 14th October last, a case of recovery from tetanus (see the *BRITISH MEDICAL JOURNAL* for October 22nd), I drew attention to the fact that, during a

considerable period, and at a certain stage of the attacks, the temperature of the patient, in addition to being unusually high, was ascertained to be augmented in the evening. I was thus led to offer the suggestion that possibly this thermal variation of temperature in a case of true tetanus might be found to obtain generally or even universally. Since then I have had no opportunity of making further research as to temperature in this disease; but Dr. W. W. Keen of Philadelphia has sent me an account of a case of tetanus which was under his care in St. Mary's Hospital in that city (*Philadelphia Medical Times*, March 1st), in which for several days during a part of the illness the evening temperature was notably higher than in the morning. Dr. Keen gives a table showing the diurnal state of the pulse, respiration, and temperature, and observes that he does so in response to any suggestions above alluded to, and for comparison with other cases.

Encouraged by this timely contribution on the part of Dr. Keen, I am induced to ask such of the readers of your pages as may have to treat cases of tetanus, if they will have the goodness to note and record in your *JOURNAL*, or forward to myself, the morning and evening temperatures of such patients, with a view of testing the value of the suggestions. Especially, I suppose, might regularity of variation as to temperature be anticipated in those cases which, according to some observers, have more or less a periodic or intermittent character. If variations should be extensively observed, it may be that fluctuations may exist which are peculiar to one or other form of tetanus. It would be a point of much interest to inquire further upon what such variations depend; and a question to be asked whether they have any relation to such changes in the texture of the spinal cord as are found to have supervened during some attacks of fatal tetanus, by reason of the intimate connection between the so-called sympathetic system of the spinal cord.

I am, etc.,

JOHN W. OGLE, M.D.

THE TEACHING OF PSYCHOLOGY IN MEDICAL SCHOOLS.

SIR,—The tone of Dr. Laycock's letter of the 27th March serves well to establish my position, that the less the teacher of practice of physic has to do with metaphysics or psychology in relation to insanity, the better. Metaphysics and psychology (crocodile and alligator) are very pretty subjects for discussion after we have arrived at some definite conclusion as to the physical causes inductive of insanity, the proper system of treatment, and the probable prognosis. What matters it to the physician whether the consciousness be divided? whether the memory be conservative or reproductive? Does it assist him in the administration of medicine, or materially affect the course of treatment to be observed?

Dr. Laycock asks, Will it help towards the elimination of knowledge of mental diseases if superintendents of asylums exclude psychology from their investigations? I have no hesitation in answering in the affirmative. Practically they one and all do so, confining themselves entirely to the physical condition of the patient, regarding the mental symptoms as merely indicative of diseased organ or function. In so conducting their practice, they no more touch upon psychology proper than the physician, who, in lecturing on dropsies, treats of hydrostatics. It is quite open for the latter to do so; but he travels out of his proper sphere, as I humbly and respectfully submit Dr. Laycock does, when he enters upon occult disquisitions on the concrete *ego*. The thing of all others which has held the specialty back is the false theory that metaphysics and psychology supply the thread which leads into the labyrinth. If they be trusted to, the inquirer is seduced away from the truth, loses himself in a maze, and wanders in an endless circle.

Dr. Laycock must know that no small proportion of "the recent researches into the anatomy, physiology, and pathology, of the brain," have been conducted by physicians who make insanity their special study; that practical therapeutics meet with scientific recognition by members of the specialty, and that good honest work is being done in the departments furthest removed from metaphysics. The real workers amongst asylum physicians are content to make the psychical subservient to the physical.

It is not often that Dr. Laycock can be caught tripping in book-lore. He has done so, however, in his last letter. My quotation of Griesinger's words was not taken from his work on *Mental Diseases*, but from his introductory lecture at the opening of the *clinique* for Nervous and Mental Diseases, in the Royal Charité of Berlin, on the 1st May, 1866. In this lecture he resiled from the position which he had previously taken up, and enunciated the "grand words" quoted in my last letter.

Dr. Laycock says that if I had to teach I would painfully realise that metaphysics cannot be avoided when treating on insanity. Should it ever be my lot to publicly teach the subject, I shall most certainly follow the example of my esteemed master, David Skae. In his course

of lectures, a most sagacious avoidance of metaphysics was observed, and a most sagacious application of logic was inculcated. He taught us the varieties of insanity as Christison taught the varieties of dropsy or any other bodily disease; and his students acquired an useful knowledge of the subject sufficient to assist them materially in general practice.

In conclusion, I beg to endorse most fully the expression of Dr. Laycock, "What a grand school of psychiatry we should have, if J. B. T. and all superintendents of asylums were of the Griesinger stamp!"

I am, etc., J. B. T.

OUTBREAK OF TRICHINIASIS IN CUMBERLAND.

SIR,—Having been requested by Mr. William Lindow Dickinson of Workington to examine some specimens of pork, in view of verifying facts in relation to the existence of trichina, will you allow me to call attention to the interesting discovery which that gentleman has made?

Mr. Dickinson has at the present time under his care "a whole family" now suffering from the so-called flesh-worm disease, resulting from the consumption of ham prepared from pigs reared by the family themselves. The portions of this ham sent to me swarm with recently encapsuled trichinae. Mr. Dickinson being thus the first person who has diagnosed trichiniasis in the living subject in England, I hope he may be induced to publish his cases at his earliest convenience.

I am, etc., T. SPENCER COBBOLD, M.D., F.R.S.

Wimpole Street, April 1871.

MORTALITY OF CONVICT PRISONS.

SIR,—In his statistical communication "On the Mortality of the Government Convict Prisons," published in the BRITISH MEDICAL JOURNAL for April 8th, 1871, Dr. Rendle makes the following statement:—"By comparing the mean mortality of the first and second tables, we find that since the hulks were abolished there has been an annual decrease in the death-rate of 4.84 per 1000." This assertion surely conveys a totally different meaning from that which its writer intended; and I am sure that Dr. Rendle will pardon me for calling attention to an accidental mistake, and for venturing a few words of criticism. There has not been an *annual* decrease in the death-rate of 4.84 per 1000; but the tables show that, during the thirteen years following the abolition of the hulks, as compared with the five previous years, there has been a decrease in the mean annual death-rate of 4.84 per 1000.

The general idea to be gathered from this interpretation of the statistics is that, since the abolition of the hulks, the mortality among convicts has tended to decrease. It seems to me at least very unfortunate that the "abolition of the hulks" should have been taken as a turning-point upon which to institute comparisons as to mortality. The hulks, during the five years in Table 2, contained only about one-fourth of the body of male convicts, and more than one hulk was used as an invalid depôt; so that they could not have been looked upon as peculiarly unhealthy or fatal places of confinement. Whatever influence the abolition of the hulks had upon the death-rate, there were other conditions equally worthy of mention and of consideration as indicating an alteration in the circumstances of the convicts. If comparisons were to be drawn upon these two tables, they would be more legitimate, I think, if we took three periods, viz., the period when the hulks were in use, the period immediately following their abolition, and the period embracing the five years ending with 1869, the year last reported upon. This would give in the first two quinquennial periods, a comparison under the old *régime*, and bring us down to the end of 1861. Three years would then elapse and tide us over the opening of the new *régime*, which comprises the reduction of the number of men sent abroad, and the introduction of a reduced scale of diet, which latter took place in 1864. The third period would show the death-rate given in the most recent returns. The following is the mortality per 1000 male convicts for each of the three quinquennial periods: 1. Hulk period, 18.48; 2. Post-hulk period, 12.32; 3. Recent period, 15.26.

The decrease in the second period as compared with the first is certainly very striking; but a comparison of the third with the second period, shows an increase of almost 3 per 1000 upon the mean annual mortality, an increase whose proportion is augmented when we find that only an average of 427 men were sent abroad annually in the third period, as compared with 788 during the second or post-hulk period. It is to be remembered that the healthiest men, or those least likely to die, were selected for embarkation. Thus, in proportion as transportation is done away with by the detention at home of convicts least likely to die, so, *ceteris paribus*, ought the ratio of mortality to decrease. But the ratio in the case under consideration does not decrease, it

rather increases; consequently, some other and more powerful cause, or combination of causes, must be sought to account for this.

I am, etc., DAV. NICOLSON, M.B.

The Grove, Portland, April 17th, 1871.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

A GENERAL meeting of this Association will be held at the Freemasons' Tavern, Great Queen Street, Lincoln's Inn Fields, on Wednesday, May 3rd, at 7.30 P.M., precisely, when the President, Dr. Rogers, will give an exposition of the causes which led to the enactment of the Medical Charities Act (Ireland), comment on the clauses which particularly interest the profession, show the results, and offer some suggestions for the modification of poor-law medical relief in England and for the utilisation of Poor-law medical officers, as deputy health-officers, in their respective districts, as recommended in the report of the Royal Sanitary Commission. The sense of the meeting will be taken on the various questions raised in the President's address. We hope that there will be a good attendance of members of the Association and of the profession generally, as the questions to be discussed are of considerable interest.

PAYMENT OF POOR-LAW MEDICAL OFFICERS.

SIR,—Allow me to bring to notice another instance, showing how advisable it is that parish medical officers should be paid in proportion to the work done by them, so much a case, instead of a fixed sum.

X. Y. Z., a labourer's child, was lately brought to me with a "note for the doctor". He had a hernia, and I had a truss made for him to measure, and sent in the bill to the guardians. The parents tell me that the guardians have sent the bill to them, saying that they must pay it, although I had an order from their own officer. Another child of the same parents is lying ill; and, although the former note which I had was repudiated by the guardians, they give the parents another "note for the doctor". The reason is evident: ordinary attendance is not an *extra*, and so costs them nothing beyond the contract salary. I apprehend that, if this last case had involved an extra fee, the parents might have applied in vain for a "note".

Enclosing my card, I am, etc.,

FIAT JUSTITIA.

VACANCIES.

BRACADALE, Skye—Medical Officer and Public Vaccinator.
CRICKLADE and WOOTTON BASSETT UNION, Wilts—Medical Officer for District No. 3.
CUNNINGHAME COMBINATION POOR-HOUSE, Irvine, Ayrshire—Medical Officer.
GLENORCHY and INISHAIL, Argyleshire—Medical Officer and Public Vaccinator.
HALIFAX UNION, Yorkshire—Medical Officer for the Elland District.
HOLBEACH UNION, Lincolnshire—Medical Officer for the Tydd District.
KIRKMICHAEL, Dumfries-shire—Parochial Medical Officer.
NARBERTH UNION, Pembrokeshire—Medical Officer for District No. 3.
RERRICK, Kirkcudbrightshire—Medical Officer.
THINGOE UNION, Suffolk—Medical Officer and Public Vaccinator for the Brockley Reed District.
WESTRAY, Orkney—Parochial Medical Officer.
WISBEACH UNION, Cambridgeshire—Medical Officer for the No. 10(b) District.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

GRATUITOUS PSYCHOLOGY.

THE Poor-law Medical Officers' Association for Ireland have issued a circular, calling the attention of the dispensary medical officers to the hardship which Lord O'Hagan's Lunacy Regulation (Ireland) Bill is likely to inflict on them. We trust that those gentlemen, who cannot but feel sore at the onerous duty and pecuniary responsibility already imposed upon them in this respect, will now put their shoulders to the wheel in each county and borough, and place themselves in immediate communication with their parliamentary representatives, for the purpose of obtaining either a fee or fixed salary in each district for the committal of dangerous lunatics. The payment which they at present receive is

certainly not sufficient to cover the labours of "gratuitous psychology"; and the pecuniary risk that they run in each particular case is a matter for their serious individual consideration. The members for Dublin, the Poor-law Commissioners, and the English Poor-law Medical Association are all in their favour; and the influence of the British Medical Association may be successfully invoked. His Excellency the Lord-Lieutenant of Ireland has also been communicated with by the Irish Poor-law Medical Officers' Association. It therefore appears to us now to rest very much with the dispensary medical officers themselves to draw the attention of the parliamentary representatives of their respective counties and boroughs to this laborious, dangerous, and responsible duty, which is at present imposed upon them "without fee or reward", and with which Lord O'Hagan's Bill still further fetters them. Isolated action is rarely successful; and we would therefore counsel unanimity in this instance particularly. Every Poor-law medical officer in Ireland may not have to examine and certify two hundred dangerous lunatics in the year, as was the case in one union in 1869; but any of them may have one who may cost him a couple of years' salary. We need not dwell longer on this subject. The circular to which we allude is probably now in the hands of every Poor-law medical officer in Ireland. Those gentlemen have, it is proved, well performed their duties. We urge them in this instance to look to their own interest and put their own shoulders to the wheel. Let each man write to his own parliamentary representative. *Verbum sat.*

PAYMENTS UNDER THE VACCINATION ACT.

AFTER some discussion at the Sligo Board of Guardians this week, it was decided to pay Dr. Tucker a sum of twenty-one shillings, which he claimed for his services in attending to give evidence against persons prosecuted as defaulters under the Compulsory Vaccination Act. Other medical men, under similar circumstances, have not been able to obtain payment. Dr. Tucker had taken the precaution to obtain a certificate from the Chairman of the Petty Sessions, and the Board considered that they had no option but to make the required payment. The precedent is of importance to other medical officers.

SOLDIERS IN WORKHOUSE HOSPITALS.

THE Waterford Guardians have entered upon an interminable discussion whether they ought or ought not to admit soldiers on service with fever and small-pox to the workhouse hospital. Elastic as is the range of Poor-law relief in Ireland, it should not, we apprehend, admit of a moment's doubt that soldiers, for whom the State makes a special continuous provision have no claim upon the ratepayers. If they be admitted at all, therefore, it would be as a favour, to prevent the spread of contagion, and upon an adequate payment, and always provided that their admission does not prejudice the poor who have a claim upon the ratepayers.

POOR-LAW TENDERS FOR MEDICINE IN IRELAND.

AT a late meeting of the Guardians of the South Dublin Union, it was proposed to make the tenders for medicines like other contracts, but the motion was negatived. It is very doubtful what was intended by the motion, except preventing the present too glaring manipulation of prices, which under present circumstances will go on as usual. The following anomalies in the prices of tender of the North and South Dublin Unions will give some insight into the system.

	North.		South.	
Acidum aceticum fortius	26s.	8d. per gall. ...	3s.	6d. per gall.
Acidum sulphuricum aromaticum	2s.	od. per lb.	28s.	od. per lb.
Aloes hepatica	os.	4d. ,,	6s.	6d. ,,
Aloes Socotrina.....	1s.	9d. ,,	6s.	6d. ,,
Pilula aloes composita	4s.	od. ,,	10s.	od. ,,
Pilula colocynthidis composita..	6s.	od. ,,	2s.	6d. ,,
Pilula hydrargyri	1s.	od. ,,	4s.	6d. ,,
Pilula rhei composita	6s.	od. ,,	1s.	od. ,,
Pulvis scammonii	28s.	od. ,,	10s.	od. ,,
Potassii bromidum	6s.	6d. ,,	20s.	od. ,,
Iodum.....	16s.	od. ,,	44s.	od. ,,
Pulvis ipecacuanhæ	10s.	od. ,,	5s.	6d. ,,
Extractum belladonnæ.....	4s.	od. ,,	16s.	od. ,,
Extractum hyoscyami	1s.	6d. ,,	5s.	4d. ,,
Pulvis opii.....	50s.	od. ,,	22s.	od. ,,
Sulphas magnesiae.....	9s.	4d. per cwt.....	6s.	od. per cwt.
Sulphur sublimatum	4s.	8d. per stone ...	1s.	6d. per st.

We shall take an early opportunity of reverting to this subject.

VACANCIES.

BAILIEBOROUGH UNION, co. Cavan—Medical Officer and Public Vaccinator for the Shercock Dispensary District.
MITCHELSTOWN UNION, co. Cork—Medical Officer for the Workhouse.
WATERFORD UNION—Medical Officer and Public Vaccinator for the Ullid Dispensary District.
WEXFORD UNION—Medical Officer for the Crossabeg Dispensary District.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Monday, April 18th.

THE MEDICAL DEPARTMENT OF THE ARMY. — On a vote of £248,300 being proposed in Committee of Supply for medical establishments and services, Dr. Brewer asked the Government what steps they intended to undertake to increase the efficiency of the medical department of the army, particularly with regard to the ambulance department. It was impossible in a time of emergency to make proper provision, and it was not until the great American war that Europe and the world understood the loss of life and great amount of suffering that arose on the battle-field from want of due training of the ambulance department in time of peace. He knew from his own experience and observation in 1866 that soldiers remained on the battle-field for forty-eight hours after they had received their wounds, and that eleven days expired before they could be got into hospital at the base of operations; and Dr. Hammond, of the United States, mentioned the circumstance of two brothers who had been shot on the Potomac, remaining on the field from six o'clock in the evening until between eight and nine o'clock the following morning. That could not have happened if the ambulance department had been specially and properly trained. He hoped the Government would devise a scheme of ambulances, which might be developed and applied in time of war.—Sir H. Storks said the Secretary for War had not neglected the subject, which was important, not only on the ground of humanity, but of military discipline. A committee had inquired into the question of ambulances. It appeared that at the battle of Konigsgratz, the percentage of the wounded in the Prussian army was 4.90, and in the Austrian army 9.28; after the battle of Magenta, the percentage of French wounded was 6.7, and of Austrians 7.05. At Waterloo, the British soldiers wounded were 17.76 per cent. During the civil war in America, the number of wounded in the Federal army at Shiloh was 12.51; at Chattanooga, 18.22; at Gettysburg, 11.78; and at Wilderness, 19.29; while in the Confederate army there was a much higher proportion. The Committee thought they could not fix on a smaller percentage than sixteen as the probable number required to be provided for after a battle. In some of the engagements around Metz in August last, the proportion of wounded greatly exceeded that. It was the intention of the Government to train a certain number of men for hospital duties, and for assisting to look after the wounded in the field; and this, he thought, would remove the pretext for men to leave the ranks or skulk from their proper duty. In reply to questions from Mr. Alderman Lusk, Lord Bury, Mr. M. Chambers, and Colonel North, Sir H. Storks said that the inspectors-general had important duties to discharge, and all the medical arrangements of the various districts were under their control. The director-general of the Army Medical Department was specially charged with the duty of seeing that the medicines were of the best quality. All the drugs were procured from the Apothecaries' Hall. General Wilbraham, the late governor-commandant at Netley, had retired, and an officer of inferior rank, Colonel Gordon, succeeded at a lower salary.—In reply to a remark by Mr. Candlish, that an assistant-commandant had been appointed at a salary of £303, Mr. Cardwell explained that the Government had been obliged to restore a second officer, after finding that the work could not be well done by one officer only.—After some further remarks, the vote was agreed to.

THE ANATOMY ACT (1832) Amendment Bill and the Lunacy Regulation (Ireland) Bill were each read a second time.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

THE MUSEUM OF ZOOLOGY.—Mr. John W. Clark, M. A., offers himself as a candidate for the office of Superintendent of the Museums of Zoology and Comparative Anatomy. The office is tenable for five years: it is in the gift of the members of the electoral roll. The election will take place on Tuesday next, April 25th.

THE NATURAL SCIENCES TRIPOS.—The Board of Natural Science Studies have issued an amended report, recommending certain altera-

tions in the examination for the Natural Sciences Tripos. They propose to separate the examination into two parts, and to continue it during eight days instead of six as heretofore. They also introduce a *viva voce* examination in addition to that by printed papers. The subjects of examination will be: 1. Chemistry and certain other branches of Physics; 2. Botany, including Vegetable Anatomy and Physiology; 3. Geology and Palæontology; 4. Mineralogy; 5. Comparative Anatomy, Physiology, and Zoology. The questions, exclusive of those which relate to practical work, will be comprised in twelve papers, and be so distributed that each of the papers will contain one or more questions in each of the subjects above enumerated. Some of the questions will refer to objects exhibited at the examination. In the first six papers the questions will be of a more elementary character; and it will be open to the Board of Natural Sciences in any schedules which they may issue to indicate the subjects that shall be suitable for this part of the examination. In the last six papers the questions will take a wider range; but still, so far as regards those branches for which schedules are issued by the Board of Natural Science Studies, will be confined to subjects indicated in the schedule. The Board further recommend that the foregoing alterations come into operation at the examination to be held in December, 1872.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At an extraordinary meeting of the College, on Monday, April 17th, the following gentlemen, having conformed to the bye-laws and regulations, and passed the required examinations, were granted Licences to practise physic, including therein the practice of medicine, surgery, and midwifery.

Branfoot, Arthur Mudge, M.R.C.S., Guy's Hospital
Clayton, Robt. Palmer, M.R.C.S., Norton House, Broughton Lane, Manchester
Dayman, Barnfield, M.R.C.S., Jewin Crescent, Aldersgate
Garratt, William, M.R.C.S., Asylum Road, Old Kent Road
Gramshaw, Henry, M.R.C.S., Amptill
Hamilton, Andrew, L.S.A., Whitley, Reading
Hicks, John Sibley, L.F.P.S. Glasg., Erskine Street, Liverpool
Hood, Donald William Charles, M.R.C.S., Guy's Hospital
Jay, William Eugene, Willunga, South Australia
Lloyd, Thomas Llewellyn, M.R.C.S., The Infirmary, Burton-on-Trent
Lovell, Francis Otley, M.R.C.S., St. George's Hospital
Palmer, James Foster, M.R.C.S., Sloane Street
Pearce, Joseph Channing, M.R.C.S., London

The following candidates, having passed in Medicine and Midwifery, will receive the College License on their obtaining qualifications in Surgery recognised by the College.

Noad, Henry Carden, St. George's Hospital
Reston, Henry, Dorset Street, Stretford, Manchester

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on April 18th.

Addy, Boughton, Southport (St. Thomas's)
Batchelor, Ferdinand Campion, Brixton Hill (Guy's)
Bonser, John Hanbury, Sutton-in-Ashfield (St. Thomas's)
Boreham, William Todman, Cantley, Norfolk (Charing Cross)
Burroughs, George Edward Elton, Littlehampton, Sussex (Charing Cross)
Chislett, Francis Herbert Oakley, Kingsland Road (London)
Coomber, Francis, Enniskillen (Guy's)
Drew, William Thomas, Stow-in-the-Wold, Gloucestershire (St. Mary's)
Holmes, Robert Andrew King, Coagh, co. Tyrone (Dublin School)
Ker, Hugh Richard, Tipton, Staffordshire (Guy's)
Maybury, Horace Mansell, Frimley, Surrey (St. Thomas's)
Munro, David, Kingston, Canada (London)
Nicholl, David Charles, Carmarthen (Edinburgh School)
Parry, Thomas William, Carnarvon (Edinburgh School)
Pellereau, George Elie, Mauritius (University College)
Pritchard, Richard Henry, Treborough, Somerset (Guy's)
Reston, Henry, Stretford, Lancashire (Manchester School)
Rose, William, High Wycombe (King's College)
Smith, George John Malcolm, Edinburgh (Edinburgh School)
Stamford, William, Swindon, Wilts (Middlesex)
Stiles, Edward Marsh, Chippenham, Wilts (St. George's)
Strafford, Thomas, Ripley, near Derby (St. Bartholomew's)
Turner, William Mulholland, King's Road (Charing Cross)
Wharry, Charles John, Woolwich (St. Bartholomew's)

Four candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their hospital studies for six months.

Admitted members on April 19th.

Blyth, Louis Gwyn, Weston-super-Mare (St. Mary's)
Drew, Henry William, Cape of Good Hope (Edinburgh School)
Haines, Alfred Henry, Notting Hill (Guy's)
Lycett, John Allan, Scarborough (Middlesex)
Russell, William, Walworth (Guy's)

Three candidates having failed to acquit themselves to the satisfaction

of the Court of Examiners, were referred to their hospital studies for six months.

New Fellows.—The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such at a meeting of the Council, on April 14th.

Bradford, Edward, Deputy Inspector-General of Hospitals, and Honorary Surgeon to the Queen, Harrow, Middlesex; diploma of membership dated June 6, 1826

Brookes, William Penny, Much Wenlock, Salop: May 20, 1831

Keate, Henry, Shrewsbury: June 20, 1836

In the list of gentlemen who passed the primary examination on April 12th, the name of George Murphy, of the Birmingham School, was accidentally omitted.

The next primary or anatomical and physiological examination will take place this day (Saturday); and for it the usual number of 108 candidates have entered their names.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 13th, 1871.

Atthill, Robert Chapman, Stoke Newington

Bishop, William, Chipping Norton

Eager, Thomas Cawley, Ripley, Surrey

Head, William Cave, Lewes, Sussex

Healey, Thomas St. Clair, Hull

Latimer, Henry Arthur, Plymouth

The following gentleman also on the same day passed his first professional examination.

Chambers, Eber, St. Bartholomew's Hospital

As an Assistant in compounding and dispensing medicines.

Brunton, Lucius William, Clifton, Bristol

MEDICAL VACANCIES.

THE following vacancies are announced:—

ALNWICK INFIRMARY—Surgeon.

BIRMINGHAM DENTAL HOSPITAL—Consulting Physician; Consulting Surgeon; Extra Dental Officer; Chloroformist.

BRISTOL LUNATIC ASYLUM, Stapleton—Medical Superintendent.

EAST RIDING OF YORKSHIRE LUNATIC ASYLUM, Beverley—Medical Superintendent.

HALIFAX INFIRMARY and DISPENSARY—Physician.

H.M.'s NAVAL ESTABLISHMENTS—Five Assistant Dispensers.

LEEDS GENERAL INFIRMARY—Physician.

LONDON FEVER HOSPITAL—Assistant-Physician.

MANCHESTER ROYAL INFIRMARY—Junior House Surgeon.

NATIONAL ORTHOPÆDIC HOSPITAL, Great Portland Street—Surgeon.

NEWRY HOSPITAL—Medical Officer (Physician and Surgeon).

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road—Medical Officer for In-patients.

ROYAL SURREY COUNTY HOSPITAL, Guildford—Assistant Honorary Medical Officer.

ST. GEORGE (Hanover Square) DISPENSARY, Mount Street—Surgeon-Dentist.

SOUTH STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Physician; House-Surgeon; Dispenser.

SUNDERLAND DISPENSARY—Dispenser.

SWANSEA HOSPITAL—Medical Officer for Out-patients.

WESTMINSTER GENERAL DISPENSARY, Gerrard Street, Soho—Honorary Physician.

[For Poor-law Vacancies see Poor-law Department.]

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

MALE, H. D., Esq., appointed House-Surgeon to the Lincoln County Hospital, *vice* G. Hett, Esq., resigned.

MILLSON, George, Esq., appointed House-Surgeon and Secretary to the Scarborough Dispensary and Accident Hospital, *vice* Thomas J. Denton, M.D., resigned.

PARSONS, T. E., Esq., appointed Medical Officer and Public Vaccinator to the Haughton-le-Skerne District of the Darlington Union.

WILKINSON, T. M., Esq., appointed House-Surgeon to the Lincoln General Dispensary, *vice* H. D. Male, Esq., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

MANNING.—On April 5th, at Laverstock, near Salisbury, the wife of Henry J. Manning, Esq., Surgeon, of a daughter.

MURCHISON.—On April 11th, at 72, Wimpole Street, the wife of *Charles Murchison M.D., F.R.S., of a son.

HER MAJESTY THE QUEEN and Her Royal Highness Princess Louise have been pleased to convey their thanks to Dr. Evanson for his epithalamium, or wedding song, on the marriage of the Princess Louise with the Marquis of Lorne.

OPERATION DAYS AT THE HOSPITALS.

MONDAYMetropolitan Frce, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAYGuy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAYSt. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAYSt. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAYWestminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic Hospital, 2 P.M.

SATURDAYSt. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Dr. Douglas Powell, "On some Cases of Obstructive Mitral Disease"; Mr. C. F. Maunder will show patients having good use of Triceps Muscle after Excision of the Elbow; Mr. Wm. Adams, "On Subcutaneous Section of the Neck of the Femur."

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Jonathan Hutchinson, "On a Series of Cases in which Chancres have been caused by Vaccination"; Dr. Elam, "On Partial Acute Idiopathic Cerebritis."

WEDNESDAY.—Hunterian Society, 8 P.M.

THURSDAY.—Royal Society.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Greenhow, "On Diphtherial Paralysis treated by Galvanism"; Dr. Gull, "On a Case of accumulation of Hair in the Stomach"; Dr. Henry Thompson, "On a Case of Diabetes treated with Opium"; Mr. Cooper Forster, "Case of Naso-pharyngeal Polypus."

NOTICES TO CORRESPONDENTS.

ALL *Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.*

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with *halfpenny* stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

C. J. W. (Leeds) should address the Chairman of the Committee, Dr. Edward Waters, Chester.

AN UNIVERSITY MAN.—The Registrar of the College, Dr. Lombe Atthill, Dublin, will give the desired information.

M.D. asks whether there is not any means of preventing an unqualified practitioner from performing primary vaccination. [** The only penalties attach to false pretences or malpractice.]

SIR,—Will you permit me to state through the medium of your pages, that, having been requested to contribute a quarterly letter on the Progress of Psychological Medicine, Anthropology, and Medical Jurisprudence in this country, to the *New York Quarterly Journal of Psychological Medicine*, edited by Dr. Hammond, I shall esteem it a great favour if gentlemen writing on these subjects will kindly forward to the above address any memoirs, books, etc., that they may wish me to notice.

With regard to books, I must request it to be distinctly understood that they will be duly returned to their respective authors, and that they cannot be accepted as presentation copies. I am, etc., GEORGE E. DAY, M.D., F.R.C.P.,

Latc Professor of Medicine in the University of St. Andrew's.
Furzewell House, Torquay, April 14th, 1871.

FOREIGN DIPLOMAS.

SIR,—Your correspondent "Physician" desires to know my name. I shall be only too happy for you to supply him with it, and also to take any steps with himself or any other members of the profession, to abate the evil complained of in my former communication. I am, etc, MEMBER OF THE BRITISH MEDICAL ASSOCIATION.
London, April 1871.

DR. SEATON's letter has been forwarded to our Manchester correspondent.

DR. JOHN MILL.—The establishment of a National University for Industrial and Technical Training is an object with which we sympathise; but its advocacy lies beyond the sphere of discussion in this JOURNAL.

SANITARY RESULTS OF THE CONTAGIOUS DISEASES ACTS.

WE entirely agree with Dr. C. B. Taylor (Nottingham) that nothing but good can come from a fair discussion in the JOURNAL of the important subject to which his letter referred; and if he will forward his reply to our observations in time, and compress them within a moderate compass, we shall hope to be able to publish them without any delay.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. F. H. HEATHCOTE, not later than *Thursday*, twelve o'clock.

MR. JAMES (Bristol).—Hardly of sufficient interest.

THE WORCESTER UNION.

LOOKING attentively through the reports of the cases recently investigated by the Worcester Guardians, we are led to the conclusion that, if the Guardians wish to save themselves from severe public reproach, they will prevent the recurrence of such incidents as those which are the subject of testimony in the case of Spalding. This seems to us to have been a very bad case; and there is nothing to excuse the refusal of an order for her. Altogether, we hope that the lying-in patients of the Union will receive more consideration. Dr. Woodward seems to have very good ground for complaint on his own behalf, but especially on behalf of the poor patients, for whom, as is often the case with medical men, he is by far more concerned than for himself.

GERMAN DEGREES.

A. B. C. (Torquay) writes:—Will you kindly say in what opinion a gentleman with a German M.D. added to the M.R.C.S. Eng. is held by the profession, and whether such degree is legal in England? The subjects for these examinations are: anatomy and physiology, chemistry, materia medica, medicine, surgery, midwifery.

. The Medical Act (1858) recognises only those foreign and colonial degrees which were obtained before October 1st, 1858, by persons then in practice in the United Kingdom. For the registration of such degrees, the applicant must satisfy the Medical Council of his having taken the degree of Doctor of Medicine after regular examination, or must show sufficient reason for dispensing with this provision. As to the general professional opinion of a German degree, there are many differences in such degrees. Some imply a very high standard of education; while others may be purchased *in absentia*, or are presented on grounds practically frivolous, except that they afford a handsome fee to the officials of the University. Perhaps the best test of the worth of a foreign degree, is the fact that it has been at some time placed on the *Medical Register*.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, April 15th; The New York Medical Record, April 6th; The Boston Medical and Surgical Journal, April 6th; The Madras Mail, Feb. 6th; The Shield, April 15th; The Philadelphia Medical Times, March 29th; The Philadelphia Medical Independent, April 1st; The South Durham and Cleveland Mercury, April 15th; The Gateshead-on-Tyne Tribune and North Durham Gazette, April 15th; The Sligo Independent, April 14th; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Horace Dobell, London; Mr. R. S. Francis, Boughton, Faversham; Mr. W. Porter, Hayward's Heath; Dr. J. Crichton Browne, Wakefield; Miss Graham, London; Mr. C. D. Allen, Glenarm; Messrs. Robertson and Scott, Edinburgh; Mr. C. E. Hoar, Maidstone; Mr. S. J. Housley, London; Mr. T. Morgan, London; Mr. Francis Mason, London; The Secretary of the Royal Medical and Chirurgical Society; Dr. C. J. Wright, Leeds; The Secretary of the Clinical Society; Mr. Wanklyn, London; Mr. Pitman, Manchester; Dr. Nicolson, Portland; Dr. Cossar, King's Lynn; Mr. James, Bristol; M.D.; Dr. E. C. Seaton, London; A. B. C., Torquay; Dr. Day, Torquay; Mr. W. Anderson, London; Our Glasgow Correspondent; Mr. W. P. Nesbitt, Acton; Mr. G. Murphy, West Bromwich; Mr. H. R. Swanzy, Dublin; The Secretary of the Scarborough Dispensary; Dr. B. W. Foster, Birmingham; Mr. T. Ogden, Bishopwearmouth; Iota, Edinburgh; Mr. W. D. Husband, York; Dr. Cobbold, London; Rev. Dr. Haughton, Dublin; Dr. T. T. Maunsell, Dublin; Dr. J. W. Ogle, London; Dr. Felce, London; Dr. C. B. Taylor, Nottingham; Dr. Proctor, York; Dr. Hilton, Toronto; Dr. Lyell, Glasgow; Dr. Steele, London; etc.

LETTERS, ETC. (with enclosures), from:—

Dr. T. L. Brunton, London; Dr. Dickson, London; Dr. G. H. Philipson, Newcastle-upon-Tyne; Surgeon-Major Ross, Budleigh Salterton; Dr. Thomas Skinner, Liverpool; Mr. Stephen Mackenzie, London; An Associate; Dr. Wm. Murray, Newcastle-upon-Tyne; Our Liverpool Correspondent; The Secretary of the Society of Arts; Dr. Lewtas, Liverpool; Mr. G. F. Giles, St. Leonard's; Mr. T. Lees, Greenock; Mr. W. Hyslop, Church Stretton; Mr. Ninian Pinkney, Washington, D.C.; Dr. Woodward, Worcester; Dr. Chas. Parsons, Dover; The Secretary of the Obstetrical Society; Dr. C. Handfield Jones, London; The Secretary of the Harveian Society; M.D. Ed.; Dr. D. Campbell Black, Glasgow; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Mr. T. Watkin Williams, Birmingham; Our Dublin Correspondent; Dr. J. Frank Payne, London; Our Edinburgh Correspondent; Dr. Aveling, London; Mr. James Dixon, London; The Secretary of the Royal College of Physicians of London; Mr. G. C. Coles, London; Dr. Lombe Atthill, Dublin; Dr. Sansom, London; Dr. George Johnson, London; Mr. H. Arnott, London; Dr. H. T. Sylvester, Swansea; Mr. M. A. Wood, jun., Ledbury; Mr. Erasinus Wilson, London; Dr. Hardie, Manchester; Dr. Joseph Rogers, London; Dr. F. J. Brown, Rochester; Mr. H. C. Lawrence, London; Mr. F. C. Mudd, Uckfield; Mr. G. Gaskoin, London; etc.

BOOKS, ETC., RECEIVED.

Dynamics of Nerve and Muscle. By Charles Bland Radcliffe, M.D., F.R.C.P. London: 1871.

On a New Method of Treating Wounds (Gruby's System), and the Medical and Surgical Aspects of the Siege of Paris, etc. By Cameron J. F. Stuart Macdonald, M.D. London: 1871.

LECTURES

ON THE

EXPERIMENTAL INVESTIGATION OF THE ACTION OF MEDICINES.

BY T. L. BRUNTON, M.D., D.Sc.,

Lecturer on Materia Medica at the Middlesex Hospital.

I.—THE STANDARD OF HEALTH.—*Concluded.*

Modes of Investigation.—Pathology.—Pharmacology.—Life.—Conditions of Health and Disease.—Effect of Drugs.—Direct and Indirect Action.—Local and Remote Action.—Dose.—Modification of Dose.—Cumulative Action.—Effect of Habit, Climate, Fasting.—Form of Administration.—Effect of Large and Small Doses.—Homœopathy.—Constitution and Idiosyncrasy.—Explanation of these from Experiments on Animals.—Connection of Chemical Constitution and Physiological Action.

DIRECT AND INDIRECT ACTION.—When any drug is taken up by a structure and acts upon it as curare on the ends of motor nerves, we term this its *direct* action. But, as all parts of the body are dependent on one another, some other structure may be affected, not by the action of the drug upon it, but by that which it has exerted on the first part. This is its *indirect* action. Thus, when curare has been given to an animal, it occasionally happens that the nerves going to the respiratory muscles become paralysed before those which go to the extremities. The muscles of respiration then cease to act, the blood is no longer arterialised, carbonic acid accumulates, and, by irritating the nerve-centres, produce convulsions, which cease when the action of the poison extends to other nerves. In this case neither the muscles, the blood, nor the nerve-centres, are acted on directly by the curare. The muscles will contract if stimulated, and, if the lungs be artificially supplied with air, the blood will be arterialised as usual, the convulsions will cease, and life may be preserved. The non-arterialisation of the blood, the occurrence of asphyxial convulsions, and death, are thus due to the *indirect* action of curare.

LOCAL AND REMOTE ACTION.—Before curare could reach the nerves on which it acted directly, it was necessary for it to enter the circulation, but it had no marked action on the spot whence it was absorbed. Other substances, however, produce an effect on the spot to which they are applied, and this may be independent of any effect which they produce after absorption. This is termed their *local* action. Thus strong sulphuric acid taken into the stomach combines with its tissues and forms a slough: this is its *local* action. But besides this, the irritation in the stomach produces through the nervous system a weakening effect on the heart, the circulation stops, and the person dies. It is not the sulphuric acid which has found its way into the circulation and acted on the heart, but the irritation in the stomach conveyed to it through its nerves. This is the *remote* effect of the acid.

DOSE.—The effect produced by any remedy depends on several conditions. The first of these is the *amount existing in the blood* at any given time, which we may call the *actual dose*, to distinguish it from the usual dose administered by the stomach or otherwise, a part of which may not be absorbed, but remain inert at the point of introduction. The action which a drug has on the body is not dependent on its absolute amount, but on the proportion it bears to the body on which it is to act, so that an amount which is a small dose for one person is a very large one for another. Thus if a grain of some active substance be injected at the same time into the veins of a full-grown man and into those of a boy of only half his weight, it will be distributed through twice as much blood in the man as in the boy, and each tissue will only receive half so much of it. The dose of a drug must therefore be regulated by the weight of the patient; and thus women, being lighter, require a smaller amount than men, and children less than adults. Though it would be more exact, it is not always convenient, to weigh patients; but in experiments on animals the weight of the animal should always be carefully ascertained, as well as the amount of the drug administered. If a substance be injected into the veins, the whole of it mixes with the blood and becomes active immediately, and the maximum effect is thus at once obtained, and will again diminish as the substance is excreted. But the case is different if it be injected subcutaneously, and still more if it be given by the stomach or any other mucous cavity; for as soon as some of it is absorbed excretion begins, and thus part of the drug is passing out of the blood while another part is being taken in. The amount in the blood is, then, *only the difference between that absorbed*

and that excreted in a given time, and absorption may be so slow or excretion so quick that there is never a sufficient amount of the substance in the blood to produce any effect. Thus Bernard found that a dose of curare which would certainly paralyse an animal when injected into the veins or even subcutaneously, would have no effect when introduced into the stomach; and Hermann showed that this was due to the kidneys excreting the poison as fast as it was absorbed from the stomach, by tying the ureters, when the animal became paralysed as surely as if the poison had been introduced at once into the veins, though not so quickly. The more rapid the absorption, or the slower the excretion, of any drug, the greater will be its effect. Thus the effect produced by the same dose of a medicine will be in proportion to the rapidity of its absorption from the different parts to which it has been applied, unless the differences be so slight or the excretion so slow that there has not been sufficient time for the removal of any considerable quantity from the blood. On this account we must diminish the dose of a medicine in order to obtain the same effect, according to the rapidity of absorption from the place to which we apply it. Absorption is quickest from a serous membrane, then from intercellular tissue, and lastly from mucous membrane. The vascularity and rate of absorption from intercellular tissue is greater on the temples, breast, and inner side of the arms and legs, than their outer surfaces or back. It should not be forgotten that any drug introduced into the stomach but not absorbed into the blood is as much outside the body as if it were in the hand, for any effect it will have on the system, provided always it have no local effect on the gastric walls. By the differences between absorption and excretion under different circumstances or in different individuals, the cumulative action of drugs, the effect of idiosyncrasy, habit, climate, condition of body, as fasting, etc., disease, and form of administration, can to a great extent, though not entirely, be explained; but experiments on some of these points are deficient, and the explanations now given are to some extent theoretical.

CUMULATIVE ACTION.—If a substance be naturally so slowly excreted from the body that the whole of the dose in ordinary use is not excreted before another is given, the amount present in the body will gradually increase, just like the curare in Hermann's experiment, and will produce an increasing or cumulative effect. Examples of this are to be found in metallic preparations, such as those of mercury or lead, which are excreted very slowly, or in some of the organic alkaloids, such as digitaline, if given in sufficiently large and frequent doses. The size of the dose and the frequency with which it must be repeated in order to produce a cumulative effect will differ according to the rapidity with which the drug is excreted; for, if excretion be rapid, a larger dose, or more frequent repetition, will be required. The long time which elapses before a dose of opium takes effect on some individuals is probably due to its being very slowly absorbed; and the power of one man to take, without apparent effect, an amount of alcohol or opium which would intoxicate another, to its either being more slowly absorbed from the stomach or intestine, or more quickly excreted by the lungs, skin, or kidneys, so that the amount present in the blood at any one time is never sufficient to produce toxic effects. If excretion from the skin and lungs be stopped, as by going from a warm room into the cold air outside, while alcohol is still being absorbed from the stomach, the amount of it in the blood is increased just as with curare, and intoxication ensues.

EFFECT OF HABIT, CLIMATE, FASTING, AND FORM OF ADMINISTRATION.—The effect of habit in lessening the action of drugs may be due to increased power of excretion or diminished absorption; and that of a warm climate in increasing the action of narcotics, such as hyoscyamus, to their excretion being hindered by the diminution in the amount of urine consequent on the increased cutaneous transpiration. A medicine taken by a fasting person is generally more rapidly absorbed and has a greater effect than if the stomach be full, as is well known in the case of alcohol. The form of administration has also an effect on the rapidity of absorption. When a drug is given in a soluble form in small bulk it is more quickly absorbed, and will have greater effect than when given in an insoluble form or much diluted. So a glass of brandy will have a greater and more rapid effect if taken raw than if diluted with a large amount of water; for if three times its bulk of water have been added to it, the stomach must absorb four times as much fluid before the same amount of alcohol could enter the blood-circulation: at the same time the greater amount of water in the blood increases excretion by the kidneys, and thus we have the actual dose of alcohol diminished both by slower absorption and by quickened excretion. It must not, however, be forgotten that the action of alcohol in the blood is complicated by its local effect on the stomach, and this is greater when it is given undiluted.

LARGE AND SMALL DOSES.—The effect produced by a small dose of a drug is sometimes exactly the opposite of that produced by a large

one. We cannot say exactly why it is so; but we very generally find that any substance or any condition, whether it be acid or alkali, heat or electricity, of which a moderate amount increases the activity of cells, destroys it when excessive.

HOMŒOPATHY.—This opposite action of large and small doses seems to be the basis of truth on which the doctrine of homœopathy has been founded. The irrational practice of giving infinitesimal doses has of course nothing to do with the principle of homœopathy—*similia similibus curantur*: the only requisite is that mentioned by Hippocrates, when he recommended mandrake in mania; viz., that the dose be smaller than would be sufficient to produce in a healthy man symptoms similar to those of the disease. Now in the case of some drugs this may be exactly equivalent to giving a drug which produces symptoms opposite to those of the disease; and then we can readily see the possibility of the morbid changes being counteracted by the action of the drug and benefit resulting from the treatment. For example, large doses of digitalis render the pulse extremely rapid, but moderate ones slow it. In this instance its moderate administration when there is a rapid pulse is homœopathic treatment, and this has sometimes been beneficial. But it is not proved that all drugs have an opposite action in large or small doses, and homœopathy, therefore, cannot be accepted as an universal rule of practice.

CONSTITUTION AND IDIOSYNCRASY.—Variations in the action of a drug cannot be entirely explained, however, by the varying amount in which it may be actually present in the circulation and acting on the body. Another modifying element of great power is *constitution*. In animals generally, we have certain arrangements for producing motion, others for the regulation of these, and others, again, for supplying them with the material necessary for the performance of their functions. But the parts which enter into each of these are not equally developed in all animals; in some one part preponderates; in others, another. Even in animals of different species, and in individuals of the same species where the relative size of organs seems the same, differences nevertheless exist; and the presence of a few cells more or less in a ganglion, and a few fibres more or less in a nerve, may alter to a very great extent the action of any substance on the organism. When a medicine given to one person produces an effect slightly differing from that which it generally causes, the difference is said to be due to *constitution*; when its difference is great, it is said to be due to *idiosyncrasy*. Now, these effects may be merely due to differences in absorption and excretion, as has been already explained, or to the different *relative development* of other parts, especially parts of the nervous system. It is easy to understand the altered effect which may be thus produced, and to perceive the ambiguity of such terms as "nervous stimulant", when we recollect that different parts of the nervous system act exactly in the opposite way to others; and if anything should act on both of these, it will produce an opposite effect according as one or other part is more developed and more powerful. Thus the vagus nerve has the power of rendering the heart's action slow, and the sympathetic of quickening it; and any drug which irritates them both, will make the heart's action slow if the vagus be more developed, or quicken it if the sympathetic be stronger. Thus two horses of unequal strength, pulling in opposite directions, may counterbalance each other; but if both be struck with a whip at the same moment, the power of the stronger becomes evident, and he pulls the weaker after him.

A good example of this action is given by muscarin, an alkaloid obtained from a poisonous mushroom, *Agaricus muscarius*. Professor Schmiedeberg, of Dorpat, has shown that this alkaloid produces great irritation of the vagus nerve, so that in frogs the heart will stand still for hours together. When given to dogs, it sometimes makes the pulse slow, but sometimes it quickens it; and one might therefore be inclined to say that when it produces quickening it cannot be acting on the vagus. But the explanation of this phenomenon is, that muscarin does not act on the vagus alone, but has also an effect on the vaso-motor nerves, producing dilatation of the vessels and diminution of the blood-pressure in them. Now, lessened pressure acts as a stimulant to the sympathetic, and quickens the heart. In this way, muscarin stimulates both vagus and sympathetic, and the pulse is rendered quick or slow according as the power of the one or other is greater in the particular dog to which it is given. In frogs, the blood-pressure has no great action on the heart, and in them the effect of the vagus is not interfered with.

Another instance may be given where an apparent difference in the effect of a drug on two animals may be removed by reducing their organs to the same condition. In most animals, the slowing action of the vagus on the heart is constantly exerted during health; and when it is cut the heart beats much faster. But in the rabbit, its power is comparatively small, and the increased rapidity of the pulse after its division is but slight. In most dogs, on the contrary, its power

is great, and, if it be cut, the heart beats very much quicker, and sends more blood into the arteries, so as to raise the pressure in them. If we measure the pressure of the blood in the arteries of a rabbit and of a dog, and then cause them to inhale nitrite of amyl, we find that the small vessels have become widened and allow the blood to pass easily out of the arterial system into the veins, so that the pressure sinks considerably in the rabbit, but it sinks only slightly in the dog. The effect seems at first sight different; but when we examine it more closely, we find that the heart of the dog is no longer beating slowly, but very quickly, so as to keep up the pressure, notwithstanding the rapid flow of blood through the widened vessels, while the heart of the rabbit was going so fast before that it could not go much more quickly. If we cut the vagi in the dog, so that the heart goes as quickly as in the rabbit before it begins to inhale, the blood-pressure sinks during the inhalation, just as it does in the rabbit.

I have given these examples at length, because of their important bearing on the question how far conclusions as to the action of medicines on man may be drawn from those which they exert on the lower animals. Now, the action of curare in paralysing the ends of motor nerves is one of the simplest and least complicated examples that we can take, as the very nature of its action prevents disturbances in other systems from showing themselves; and we find that it is exactly the same in the Indian who accidentally wounds himself with his poisoned arrow, in the game which he shoots, or in the frog on which we experiment.

Motor nerves, the structure on which curare acts, are alike present in all, and in all are its results the same.

And as we have seen that, in the lower animals, differences in the action of drugs are produced by differences in the structure of the animal, and that the former disappear when the latter are removed, we are, I think, justified in concluding that, when the organs or structures on which a drug acts are similar in man and the lower animals, the action will be alike, and that variations will be observed just in proportion to the difference between his structure and theirs. But as it may be difficult or impossible to detect these differences except from their effects, we ought to test our conclusions as to the action of remedies by giving them to a healthy man, and observing whether their effects are such as we have been led, from our experiments on animals, to expect.

DISEASE.—The different effects of a medicine in disease from those produced by it in health may be partly due to differences in the dose actually present in the blood from altered absorption and excretion, and partly to the alterations produced by disease in other organs, which may interfere with their direct, and probably to a much greater extent with their indirect, action. But what the alterations in each disease, and the ways in which they will modify either the direct or indirect action of remedies, really are, can only be determined by an increased knowledge of pathology and by actual clinical observation.

CHEMICAL CONSTITUTION AND PHYSIOLOGICAL ACTION.—I have spoken thus far only of the changes in the body and the various effects which they produce; but I must not leave this subject without mentioning the wide field of research which has been opened up by the remarkable discovery made by Drs. Crum Brown and Fraser, of the relation which exists between chemical constitution and physiological action. It was known before that one drug would act only on one part of the body, another on another part; but they have shown that changes in the chemical composition of a drug may not only alter its action, but transfer it to a different structure: so the addition of sulphate of methyl to strychnia, brucia, or thebaia, causes them to act on the terminal branches of motor nerves instead of on the spinal cord, while a similar addition to other alkaloids removes some of their actions but leaves others unchanged. Further researches of this kind may enable us to determine what parts will be acted on by a drug after a definite change has been effected in its chemical constitution; and the progress of physiological chemistry in ascertaining the composition and properties of the tissues renders it not impossible that such knowledge may yet be acquired as that spoken of by Locke in the following words. "Did we know the (mechanical) affections of the particles of rhubarb, hemlock, opium, and a man, as a watchmaker does those of a watch, whereby it performs its operations, and of a file, which by rubbing on them will alter the figure of any of the wheels, we should be able to tell beforehand that rhubarb will purge, hemlock kill, and opium make a man sleep." And even though our knowledge should never reach this extent, the rapid advances which it has made of late years, the power of altering the chemical composition of the organic alkaloids, and along with it their physiological action, which we now possess, and the fact that one of them (conia) has already been made synthetically, incline us to believe that we may by and bye make substances which will produce the physiological effects which we desire, and that a future lies before therapeutics of which at present we can hardly dream.

CLINICAL LECTURES

ON

MENTAL AND CEREBRAL DISEASES.

By J. CRICHTON BROWNE, M.D., F.R.S.E.,

Medical Director, West Riding Asylum; Lecturer on Mental Diseases to the Leeds School of Medicine; etc.

I.—BRAIN-WASTING.

GENTLEMEN,—You are aware that if mechanical pressure is applied to a motor nerve in such a manner that, beginning with the slightest contact, it is gradually and steadily increased, even until the nerve is destroyed at the point of application, no convulsions or spasms, but only deadness and abolition of function are produced; but that, on the other hand, if even a less degree of pressure is suddenly exerted, violent convulsions and agitations inevitably ensue. Now, what I desire to bring before you in the first place, to-day, is that moral or mental pressure on the brain has two distinct sets of consequences according to the mode of its application, corresponding with the two sets of consequences of mechanical pressure on a motor nerve, to which we have referred. Having long felt the importance of arriving at something more definite and satisfactory than the hazy generalisations now in vogue as to the effects of intense emotion or excessive intellectual strain in the production of mental derangements, I have paid some attention to the subject, and have convinced myself on this point; that a sudden emotion—a flash of joy or a pang of grief for which there had been no preparation, and a hastily imposed intellectual burden—an arduous task undertaken by an untrained mind, are most likely to produce mania or some acute form of mental disorder; and that a gradual emotion—pleasurable excitement “long drawn out,” or a canker care quietly eating its way, and a slowly imposed intellectual burden—the cumulative weight of a course of study—are most likely to produce dementia or a progressive impairment of the faculties. I shall upon a future occasion describe to you several cases in which acute mania or melancholia of a very violent type has resulted from cataclysmic emotions—if I may be permitted the term—such as the transport of accession to unanticipated fortune, the terror of being shut up in a house on fire, the agony of an accidental bereavement, or from a hurriedly heaped up intellectual load, such as the rubbish gathered together in a spurt at cramming, or the weighty masses of unaccustomed responsibility. To-day, however, I shall call your attention to some other cases in which protracted emotional tension, due to a succession of deluding joys, or sobering sorrows, or sustained intellectual strain, springing out of growing business engagements and calculations, or other arduous pursuits, have brought on fatuity, premature decrepitude and brain-wasting, and degeneration.

Unfortunately such cases are always abundant in this asylum, which derives its population from a busy district, one of the chief centres of high pressure both for boilers and brains, so that I shall have no difficulty in presenting you with illustrations of the condition which we are to consider. A very apt example exists in No. 2 Ward, in the person of W. W., whose case I would request you to note. This man, who is 45 years of age, was, until eighteen months ago, an energetic and prosperous accountant in a neighbouring large town, and occupied himself in public affairs, as well as in his private business. He worked late and early, lived in a vortex of rivalry and controversy, and greatly overtaxed his strength. At the time mentioned, he began to reap the fruits of his rashness; he felt ill; he broke down in a speech which he was making, and he experienced a partial loss of power in his left arm and leg. He struggled on, however, as he could not afford even to pause in his career, and as he did so, his infirmities gained upon him. All mental processes became laborious, and many of them ended in confusion. His friends remarked that he was no longer the keen vigorous man that he had been, but dull and stupid, and at times depressed; that his voice had become shrill and tremulous, and his movements jerky and uncertain. Six months after the first indications of indisposition, his speech was almost lost, his left side was exceedingly weak, and his mind was reduced to a state of imbecility. In six months more, he was worse and pauperised, so that he had to be sent to this asylum, to which he was admitted on April 5th, 1870. Up to the present date, no improvement has taken place in his mental or bodily state; indeed, he has declined steadily, in spite of treatment, into almost the last stage of brain-wasting, in which you now see him. You observe that he is a man with a large head, who has been much stouter than he now is, and whose general appearance is that of utter

helplessness and second childishness. He cannot walk without assistance; he shuffles his feet along the ground, and droops to the left side. His face is expressionless; his complexion exceedingly pallid. His tongue points to the left when protruded, and the pupil of his left eye is much larger than that of the right. His hands shake so, that when he attempts to feed himself he scatters his food about; they are also very feeble, especially the left, with which he cannot grasp anything. His command over language is very limited. He can say “book” and “pencil” when these articles are shown to him, but cannot form a sentence or give expression to his ideas. When he wishes to say something, his face brightens for an instant, he moves his hand impatiently before him, and is obviously groping for appropriate words; but his efforts are vain, for he can only stutter out “fine day,” or some meaningless phrase. When spoken to slowly and distinctly, he understands what is said to him, and will put out his tongue, take off his cap, or raise his hand, in accordance with the directions given. His emotions are also to some extent active, as he weeps when I speak to him of his family, and ask him if he desires to return home. Now, this man is, as I have said, almost in the last stage of brain-wasting, and has but a short time to live. After years of sustained pressure, intellectual and emotional, his brain has become deadened and degenerated. An insidious weakness has invaded all his powers. Without any apoplectic seizure, he has become paralysed; without any paroxysm of excitement, he has grown fatuous. And when we come to examine his brain, we shall find that, without any traces of an inflammatory process, there is a distinct atrophy of that organ.

In order to exhibit to you the entire progress and results of brain-wasting, I shall refer to the case of S. T., female, aged 54, who died in this asylum on January 25th of the present year. She was brought hither from Selby on November 16th, 1868, and was stated to have been a domestic servant, a hard-working woman, who had suffered many misfortunes, but who had always been of temperate and steady habits. The mind had given way some months before her reception here, its failure being evidenced by forgetfulness, and a constant fear that the police were about to take her into custody for some imaginary crime. At the time of her admission, she is reported as a tall woman, much emaciated, with a pale, deeply furrowed countenance, and in a dull lethargic mood, out of which she could scarcely be roused. She gazed vacantly around her, paused a long time before answering a question, and gave inconsequent and sometimes unintelligible replies. No clear account could be elicited from her of her past history, except as to some incidents of her girlhood, which she kept repeating. There was a systolic *bruit* at the base of her heart, and a thick white fur on her tongue, which corresponded to capriciousness of appetite and constipation of the bowels. A fortnight after her admission, she was in a drowsy semi-comatose state, out of which she emerged with thickness of articulation, inequality of the pupils—the left being contracted and the right dilated, general impairment of sensibility and muscular power, the failure of the latter being most marked on the right side. From that period her mental capacity became gradually more and more restricted. In the spring of 1869 she used to talk incoherently, or to spend days without moving or speaking; sometimes requiring to be fed with the stomach-pump, as she was too stupid to partake voluntarily of food. In the autumn of the same year, she was, if anything, less fatuous, and could answer “Yes” or “No” to simple questions; but in the beginning of 1870 she sank into a stupor deeper than ever. She manifested no comprehension of what was said to her, and could only articulate a few monosyllables in a spluttering fashion. Her right hand was completely paralysed, and she could not totter along without being supported on both sides. Throughout the year she remained in the condition described, the prolongation of her life being solely attributable to the skilful nursing of which she had the benefit, and which actually carried her safely through a succession of carbuncles. In December 1870, she was in the habit of uttering low monotonous automatic cries. In January 1871, she was confined to bed altogether powerless, and demented. On the 25th of that month, she died after a few hours of coma. At the *post mortem* examination, which took place sixty hours after death, the skull was found generally thickened and eroded by deep, rough channels for the meningeal vessels. It was unsymmetrical, bulging posteriorly to the left, and presented a bluish tinge in its inner table. The brain weighed forty ounces, and five ounces of clear serous fluid escaped during its removal. The arachnoid was thickened, and had a milky aspect over the frontal and parietal lobes. The pia mater was normal, and stripped freely from the convolutions, which were greatly attenuated, especially in the frontal and parietal lobes. The sulci were unusually large, and filled with fluid. The grey matter was pale and of faded appearance, and the white of a dusky colour, with numerous puncta vasculosa. The minute vessels seemed stronger and tougher than they ought to be. The ventricles were of immense size, and full of clear fluid. The fornix

was softened, and the optic thalami were flattened and wasted. The pons Varolii, medulla oblongata, and cerebellum weighed five ounces. The thoracic and abdominal viscera were all more or less atrophied, but free from visible disease, except the liver, which was in a state of fatty degeneration.

In this description of the morbid appearances found in the body of S. T., you have a vindication of the designation which we have applied to the malady under which she perished. Brain-wasting was certainly the essential pathological change discovered, and the only explanation of the symptoms displayed during life. The same description is applicable, almost word for word, to many other brains which you have had opportunities of seeing in our *post mortem* room here, and which all belonged to two classes of patients: first, those whose history and derangement were analogous to those of S. T.; and second, those who died of senile decay, or of other bodily diseases at a very advanced age. The brains of the old are undoubtedly wasted, and those others who have wasted brains are prematurely old. The excessive emotional or intellectual pressure to which we have adverted as the great cause of brain-wasting, really dissipates the energies of life, and induces a precocious dotage. The riotous living of the mind squanders that portion of strength bestowed upon it, and there is no fatted calf in this case to which the spendthrift may return. Decrepitude is the inevitable consequence. The prodigal is old before his time, and hurries through the ages of the world-play into that mere oblivion which precedes the final exit. Hence the phenomena of his decline and fall are similar to those of old age, and the state of his brain after death is like that of the brain of an aged and infirm person. The brain of a man who has died in middle life from brain-wasting is not distinguishable from that of another man who has died of senile decay after a period of dotage. Both of them conform closely to the description given you of the brain of S. T.: diminished weight and bulk, general shrivelling, loss of the plumpness and roundness of the convolutions, expansion of the interspaces, and 'water, water everywhere' being the most important external characteristics. Having examined a large number of wasted brains, I am able to tell you that the wasting is never general and uniform throughout the brain, but seems to follow a definite course in all cases. It begins and is invariably most advanced in the marginal, the ascending frontal, and the ascending parietal gyri, from which it spreads to the superior frontal gyrus, and the postero-parietal and supramarginal lobules. After these it involves the middle or inferior frontal and the angular gyri. In severe and protracted cases, the gyri of the orbital lobule and of the tempero-sphenoidal lobe participate in the wasting, but those of the occipital lobe rarely, if ever, do so. You will frequently see the atrophy of the convolutions terminate abruptly at the external parieto-occipital fissure, the occipital lobe remaining plump, while the frontal and parietal are greatly attenuated. I cannot offer you any explanation of this partial distribution of the wasting, nor connect it in any way with the symptoms observed during life. I can only record its existence, as to which, indeed, you have frequent opportunities of satisfying yourselves. Along with the shrinking of the convolutions there is also wasting of the corpora striata, optic thalami, and corpora quadrigemina, which are flattened and altered in outline, the ventricles being unusually capacious. The wasting originates in the cortical substance of the hemispheres, but ultimately extends to the great ganglia at the base.

A state of brain-wasting very analogous to that which we are considering has been described by some as one result of alcoholism chronicus. I shall hereafter point out to you that the atrophy of chronic intemperance has some peculiarities which separate it from simple brain-wasting, both in the symptoms by which it is betrayed during life, and the appearances which it presents after death.

Having endeavoured to familiarise you with the essential nature and morbid anatomy of brain-wasting, I shall next direct your attention more particularly to its origin and development and symptoms, mental and bodily. As might have been expected, its presence is first announced by certain changes in mental processes. The cineritious substance is the first part of the cerebrum to undergo wasting, and suffers more seriously from atrophic changes than the encephalic ganglia. And hence mental precede motor symptoms. The intellect and emotions and appetites, which are dependant upon that cineritious substance for their manifestations, suffer decay earlier than the motor functions, which are dependent upon the encephalic ganglia. This fact, which I regard as certain, may not seem to you to be always borne out by the statements of the patients whom we examine, or of their relatives and friends. We are frequently told that the feebleness of the arm, the drawing of the mouth, or the thickness of speech, was the first sign of illness noticed, and that until the appearance of the paralytic phenomena no mental failure or perversion had existed. Well, statements of that kind are never reliable; and for this reason, that a man's mind may be very considerably weakened without his being at all alive to the fact, or without its

being discovered by those who are living with him in familiar intercourse. He performs his ordinary everyday duties with his usual punctuality and precision, and it is not until attention is specially directed to him, or until some extraordinary exertion is required of him, that his deterioration becomes apparent. It is astonishing how little real thinking will suffice to carry a well trained man through an average day or month of an average life. All sorts of subterfuges have been adopted to dispense with the trouble of original thinking. Counterfeits for thought have the freest circulation. Stock notions, habitual phrases, and second-hand maxims go a long way in place of thought, and entail no great exertion, as they depend upon familiar and almost automatic operations of the nervous centres. Even a damaged brain is equal to their evolution, and does not display its disability as long as it is called upon for no higher effort. The moment, however, that a greater or unaccustomed exercise is demanded, its prostration is rendered obvious. He who is labouring under a wasting bodily disease is seldom aware of his own degeneracy, until he endeavours to put forth his strength in some more than common effort; and so he who is labouring under brain-wasting may not detect the impairment of his mental powers, until he essays to employ his faculties in something beyond their routine occupation. Where we suspect brain-wasting, therefore, we must not be content when our patient assures us that his mind is sound, and his head as clear as ever. This may merely mean that he can eat his dinner with decency, remember the multiplication table, and wind up his watch. We must gauge his capacity in some less familiar field, put him through some mental gymnastics and exercises, and then determine, upon a consideration of his age, temperament, education, and position, whether his performance is as good as it ought to be. You must recollect the case of E. W. in which we had his own testimony and that of his relations at the time of his admission, that his intellect had retained its integrity for some months after muscular tremor had set in, and respecting whom we learnt from his employers afterwards that, for nearly two years prior to those tremors, he had been falling off from his usefulness as a clerk, and that, for three months before their occurrence, he had been committing preposterous blunders in his accounts.

As to the period of the recognition of those mental symptoms which mark the earliest stage of brain-wasting, a good deal depends upon the position of the sufferer. If that is such as to call for a display of mental power, then they will be early detected; if not, then they will not improbably be overlooked until paralytic symptoms supervene. In M. G. aged 38, a Jewish rabbi, who died here from brain-wasting, brought on by anxiety and over-work extending over many years spent in Austria and in this country, mental failure was revealed in his repeating himself in his sermons, and in errors and omissions in the services, fully four months before a convulsive fit ushered in the paralytic symptoms. But in G. W., aged 46, a labourer, broken down by domestic miseries, who also died here from brain-wasting, last year, no mental curtailment was noticed until paralysis affected his right side. In the upper ranks of society the mental symptoms will, as a rule, be more promptly appreciated both by the sufferer himself and by those around him, than amongst the lower classes. In the latter the tendency of life is to induce bluntness and insensibility, to limit the range of the senses and emotions, to place them beyond the reach of any but powerful stimulants, to shut out petty pains and annoyances, and at the same time small pleasures and beatitudes. The working man must not notice the cut finger, the broken nail, the pinching shoe, the drain-smell, the noise of adjoining machinery, the unmerited reproof; and, consequently, he is inaccessible to delicate sensations of bodily well-being or derangement, and to the finer indications of mental decay. He relishes no flavour milder than onions, and acknowledges no mental disorders short of complete anarchy. In the upper ranks, however, the tendency is to open the senses and mind to the most airy and evanescent impressions, to make them responsive to the slightest touch. Sheltered from rough usage or discordant accompaniments, and solicited by bland and delightful environments, the tenderly bred lady becomes exquisitely sensitive, and is quick to remark any deviation from health in her own mind or that of any one in whom she is interested. The brain-wasting of my lord, therefore, is recognised in its incipient mental manifestations, while that of Hodge has advanced far into paralysis before its presence is suspected.

[To be continued.]

OWENS COLLEGE EXTENSION.—We (*Manchester Guardian*) understand that Miss Brackenbury has signified her intention to give the magnificent sum of £10,000, for the establishment of a medical school in connection with the College, being £5,000 for the erection of suitable buildings, and £5,000 by way of endowment for the support of the department. We believe that the father of Miss Brackenbury was in the medical profession, and it would be a graceful recognition of the fact for the governors to endow a Brackenbury professor.

NOTES ON CLINICAL MEDICINE.

By ALEX. FLEMING, M.D., F.R.C.P.,
Senior Physician to the Queen's Hospital, Birmingham.

I.—ON THE ADMINISTRATION OF HEMLOCK AND ITS USE IN SCROFULA.

THE uncertainty and comparative inertness of the Pharmacopœial preparations of hemlock are generally acknowledged; and hence this valuable drug is less used than it would otherwise be, and its remedial powers in certain diseases are imperfectly known.

For nearly twenty years I have from time to time adopted the following mode of administration with good results. The fresh green fruit is mixed with its own weight of white sugar and reduced to a pulp. Five grains or more of this conserve, formed into a pill, are given three times in the day. Thus administered, the drug produces the usual physiological effects—slight dimness of sight, weakness and dragging of the lower limbs, and languor—with much certainty. This preparation retains its activity for three or four weeks only, and has therefore to be constantly renewed.

As a sedative in curing whooping-cough, and in abating the cough of consumption, I have found it very useful; but my attention has been especially attracted to its value in scrofula. Its effects are most marked in favouring the absorption and removal of enlarged glands, and in promoting the healing of scrofulous sores. In those cases, I give it in conjunction with the iodide or bromide of iron. The old writers on the materia medica were fully alive to the value of hemlock in scrofula; and more recently, Dr. Baudelocque of Paris obtained excellent results from its use in the treatment of children affected with enlarged and suppurating glands.

Hemlock is sometimes recommended as an addition to cataplasms and to the warm bath in the treatment of diseases of the skin; and I have myself often found it useful in allaying pain and itching; but it is well to know that its external use requires caution. In the case of a child under my care suffering from severe eczema, decided physiological effects ensued from its use in mixture with linseed-meal in the form of poultice, and caused some anxiety. It is here that we experience the disadvantage of the uncertainty in strength of the preparation. The powder is often powerless either for good or ill; but should the drug be fresh, its action may, when thus applied, give rise to alarming symptoms. The following case may be cited in illustration of the value of hemlock in scrofula.

CASE I.—I was summoned to see in consultation Agnes S., nine years of age, on account of convulsions caused by a gross error of diet. She had been always delicate, and presented the usual indications of the scrofulous habit. There were, besides, enlarged glands in the neck, and an extensive strumous ulcer on the left leg. The convulsions were speedily relieved. It then occurred to me to recommend for the scrofula a trial of the hemlock, especially as at the moment it could be obtained fresh and in good condition. The iodide of iron was given at the same time, and suitable local remedies were applied to the ulcer. The scrofulous symptoms in this child, in spite of treatment, had been steadily growing worse for several months, but soon after beginning the hemlock a decided change was manifested. The glands in the neck became smaller, and the ulcer, assuming a healthy aspect, gradually lessened. At the end of nine weeks the tumescence of the glands had disappeared, the sore had cicatrised, and the child was restored to fair health.

II.—TUBERCULAR MENINGITIS: USE OF THE IODIDE OF POTASSIUM: RECOVERY.

I have long been satisfied of the inutility of mercurials in the treatment of tubercular meningitis, and am inclined to rely on the use of the iodides of potassium and ammonium, as recommended by the greater number of those who have made this disease the subject of special study. The treatment which I pursue may be briefly summarised as follows. Milk and beef-tea are given alternately every three hours; and, according to age, from one to three grains each of the iodides of potassium and ammonium, either singly or combined, in half an ounce of water sweetened with a little sugar, an hour before each meal; aperients by the mouth and rectum, and blisters to the back of the neck and behind the ears. The following case illustrates the advantage of this mode of treatment in this almost universally fatal disease.

CASE II.—On November 26th, 1869, I was asked to see E. S., a girl aged 2½ years, in consultation with Mr. Thomas Swain of this town. The child was reported to have been for several weeks out of health; and, eight days before I saw her, there had been a slight discharge from the left ear, and some erythema of the same side of the face. These passed away, but the child gradually became insensible. When I saw

her, the little patient was quite unconscious, and could neither hear nor see. There was some twitching of the limbs; the pupils were equal and dilated; they responded to light, but very sluggishly. At first there had been vomiting and constipation; the bowels were afterwards opened by enemata. The child, when I saw it, was passing both urine and faeces unconsciously. The pulse was 140, small and weak; the respirations 35. There was a little bronchitis. The *tache meningitique* was well marked. The treatment as to diet, medicine, and counterirritation, indicated above was pursued.—November 27th. The child was in the same state, but weaker. On the 29th there was a slight return of consciousness; the bowels were relaxed.—December 2nd. The child was quite conscious, and the pupils were normal. She was taking food better. The improvement continued, and she made a good recovery.

I have no doubt this was a case of unequivocal tubercular meningitis; and, however difficult it may be to determine precisely how far the iodides contributed to recovery, it would be unwise to neglect their probable agency for good in this disease. If the line of argument so often used be permitted; viz., that because a cure was obtained the case was not an example of this generally fatal disorder, all chance of arriving at truth on the subject is at an end. This same vicious mode of reasoning was used a few years ago to explain away the undoubted recoveries from consumption, and presented for long a serious obstacle to the employment of improved methods of treatment in that disease. The fallacy of this view has now been exposed, greatly to the benefit of mankind and to the advantage of medical science. We should be on our guard against accepting too readily the hopelessness of treatment in any disease, lest we paralyse effort and cease our endeavour to secure the means of cure; for with such a conviction the mind refuses to avail itself of resources that might have the best effect in averting the dreaded danger. This unhappy kind of reasoning tends also to foster a sceptical mode of viewing all medical treatment, than which nothing can be more enfeebling or erroneous.

NOTES OF OPHTHALMIC CASES.

By JAMES DIXON, F.R.C.S.,

Consulting Surgeon to the Royal London Ophthalmic Hospital, Moorfields.

II.—CALCAREOUS FILM OF THE CORNEA.

THE curious affection which I have thus named is extremely rare, and in 1848, when I first met with an instance of it, I could find no record of its having been previously noticed. Since then, I have seen only two cases. Mr. Fairlie Clarke has lately published three which came under his observation, and he describes them as "Symmetrical Opacities of the Cornea." (BRITISH MEDICAL JOURNAL, October 8th, 1870; and *Transactions of Pathological Society* for 1870, p. 331.) I cannot accept this as a satisfactory term, for it does not imply the distinctive character of the disease, namely, the calcareous nature of the deposit; and, again, by Mr. Clarke's own showing, the opacities in his cases were not symmetrical. They occurred in both corneae at the same time, but not in the same form; and, indeed, Mr. Clarke specially points out the difference in shape which existed between the two opacities in each of his patients. I use the word "film" as best describing the extreme thinness of the calcareous layer.

In all the cases hitherto observed, the patients have been adults. They give no account of any inflammatory stage, but describe the affection as a cloud or haze slowly coming over the sight. The deposit appears always to extend across the middle of the cornea, leaving the upper and the lower portions perfectly clear; at least, I know of no case in which the whole cornea was involved.

The deposit is of a dirty grey or drab colour, almost brown when the iris is of that tint; its margin is not abrupt, but shaded off into the transparent tissue. When closely examined, the layer has a minutely granular appearance, and here and there little cracks run across it, such as one sees in a coat of old varnish. In a well-marked case, the opacity is so dense as completely to hide the pupil when the eye is viewed directly in front. The epithelium covering the opacity seems to remain unaffected. In the case on which I operated in 1848, the deposit consisted of lime, either in the state of phosphate or of sulphate; some phosphate of magnesia and a considerable proportion of carbonate of lime were found, along with the phosphate of lime, in the case reported by Mr. Bowman.

The cases hitherto examined are too few to allow our determining the origin of the deposit. The fact of its being limited to that part of the cornea which is habitually uncovered by the lids, made me at first suppose that some external agency was the cause. My first case was that of a cabinet-maker; a patient who shortly afterwards came under Mr. Bowman's care was a house-painter; Mr. Clarke's cases

comprise a barometer-frame maker, a water-gilder, and a commercial traveller; and a particularly well-marked case which I saw a few years ago, was that of a clerk in a public office. In patients of such diverse occupations, one cannot recognise any common external agency.

I do not know any medical treatment likely to remove the deposit. The only method seems to be by operation, but this requires extreme care and delicacy of hand. The very thin earthy film adheres to the anterior elastic lamina of the cornea, and to cut or scratch the latter would frustrate the object of the operation. No lancet or fine-pointed instrument should be employed. The minute spatula, which is so useful in tilting out small bodies from the cornea (figured in the first and second editions of my *Guide to the Practical Study of Diseases of the Eye*) is the safest and most suitable instrument. First, the epithelium is to be scraped off from the centre of the cornea, to an extent sufficient for exposing the area of the pupil. This lays bare the hard, brittle surface of the earthy deposit, which is to be chipped off bit by bit to the desired extent, care being taken to avoid, as much as possible, any scratching of the cornea itself. This operation, trifling as it seems, causes severe pain, such as generally attends accidental abrasion of the corneal epithelium. A drop or two of oil upon the part, and the closure of the lids for a day or two, will prevent further suffering. Whether the clear space of cornea thus obtained will remain clear, or whether a fresh film of calcareous material will by degrees become deposited, I have not had the opportunity of determining; but in the case which I treated in 1848, there was no trace of fresh deposit a year after the operation.

CLINICAL MEMORANDA.

EXAGGERATED IRRITABILITY OF MUSCULAR STRUCTURES OF THE SKIN.

A MAN, aged 39, an out-patient of St. Mary's Hospital, was stripped for the purpose of examining the chest, when an eruption was observed on the right side of the neck, which in character, grouping, and situation, exactly resembled commencing herpes zoster of the region of the cervical plexus. On one patch, however, larger than the rest, a small wheal of urticaria was present. This led to experiment being made for the production of artificial urticaria. The back of the finger-nail was drawn sharply across the front of the chest, on both sides, several times. There was produced immediately a broad line of elevated hair-follicles, as in goose-skin; this subsided, and in two minutes was succeeded by a similar line of elevated hair-roots, but this time of bright red colour, which in four minutes and a half or five minutes had developed itself into a long, smooth, elevated wheal of urticaria, pale, with red margins. In ten or twelve minutes, the mark had almost faded again.

The patient was a strong well-built man, thirty-nine inches round the chest, turning grey, a good example of the nervous temperament. The circumstances under which the condition described had come on were as follows. He was a porter in the goods department of the Great Western Railway, and just before Christmas had been at work for three days and three nights consecutively, passing constantly from a heated office into the cold air. He took cold, and ever since had had cough in the morning, expectorating a little blood at times. He felt weak and nervous; had pain in the epigastrium after food; the bowels were relaxed.

The simulation of incipient zoster in the area of distribution of the cervical plexus, may possibly have been accidental, but it was most striking, both as regards the size, shape, appearance, and situation of the patches. It is more probable that the seat and character of the eruption were determined by the nerves, perhaps under the influence of irritation by the clothes. On this supposition, the association of a bastard zoster and urticaria—two nervous affections of the skin—would be interesting.

It is interesting, again, to compare the phenomena observed in this case with what occurs on similar irritation of the skin when not unduly sensitive. There is first produced a pale line, which disappears immediately and completely. At a variable interval (from fifteen to thirty seconds) it is replaced by a red line in a broader pale tract, the red line gradually fading out of the pale tract, which itself lasts from two to five minutes. Or the red line may not appear at all. This succession of changes, more particularly the recurrent and persistent pale tract, has been attributed to the contractile element in the capillary walls, and has been used as an illustration of its action; but it is really due to the organic muscular fibres of the skin itself, which compress the capillaries and exclude the blood, and is rendered obvious by the fact that their contraction carried farther raises the wheal seen in this patient.

W. H. BROADBENT, M.D., F.R.C.P.

ON THE TREATMENT OF STRICTURE OF THE URETHRA.

By W. P. SWAIN, F.R.C.S.,

Surgeon to the Royal Albert Hospital, Devonport.

THE admirable paper read by Mr. Teevan at the Medical Society of London, and the discussion which took place at a later date at the Clinical Society on the Treatment of Stricture of the Urethra, both tend to bring this subject prominently under the notice of the profession, and to provoke discussion on the various modes of treatment propounded. Perhaps the best evidence which we can have of the advance that surgeons have made in the treatment of stricture of the urethra is the fact that so many methods—I was about to write of *cure*, but I would rather use the term *alleviation*—exist. We can as yet lay no claim to cure this disease, but we can justly promise to our patients in by far the majority of cases considerable mitigation of their sufferings, if only they will abide by our advice and permanently follow the directions given them. The misfortune is, that patients will seldom do this, and the result is sure and certain relapse.

Whilst it is a matter of congratulation that the surgeon has the choice of many procedures in order to restore the urethra to its natural calibre, it is unfortunate that not a few, and amongst them some of our most eminent surgeons, espouse but one method, to the emphatic condemnation of all others. Thus one surgeon will always cut from without, another from within, and a third will, at the slightest provocation, tap *per rectum*. One will gradually dilate with metal instruments; another will use none but flexible bougies. Forcible rupture is the cure for all strictures in the hands of one; rapid dilatation and over-distention finds favour with another. Now, to those who are unbiassed, it will probably appear that each one of the above-mentioned modes of relief has its advantage, and that one is eminently applicable to a certain case, but exceedingly inappropriate to the next one that turns up. Take an example from actual practice. A man has a so-called impermeable stricture; he is in the utmost suffering, worn down to the last extremity. A surgeon comes to his relief who does not believe in the impermeability of stricture, and who, after a very prolonged trial, succeeds in passing an infinitesimally small catheter into his bladder, and ties it in. The man dies in a few hours. Suppose that in this case the bladder had been tapped through the rectum, would it not be reasonable to suppose that the stricture would have given way, and that in the course of a short time a fair-sized instrument might have been introduced? I venture to think it might; but then, how about the theory of the non-impermeability of strictures?

Then, as to the use of flexible or metallic instruments:—we are told upon the highest authorities that there is nothing like the flexible French bougie, and that all metallic bougies are to be cast aside. Now, I am ready to admit the very great advantages possessed by the French flexible probe-pointed bougies and catheters. They are wonderfully painless in their use; and I have frequently succeeded in passing one when all other instruments have failed: but they have their drawbacks. In the first place, they are *very* perishable, and after a few usings become dangerous. I have known the catheter break off at the eye in the urethra, and that, too, in the hands of a careful and skilful surgeon. Then in old, long, grisly strictures, they double up and refuse to pass onwards; and even if we succeed in passing one of a small size, it is very difficult to continue the dilatation with them. I have every reason to speak well of Sir Henry Thompson's silver probe-pointed catheter. It is a dangerous instrument in a rough hand, but with light handling and patience it is most useful in retention from old tight stricture. I have frequently succeeded in passing it after having failed with other instruments, and, having once got it in, I have taken good care to *keep* it in for the next eight-and-forty hours, and have thus been able effectually to relieve the stricture.

With regard to gradual dilatation, Thompson's conical bougies of solid steel are most useful instruments. I have a set made running up to No. 16, and with them I seldom fail to make most satisfactory progress. Here is a case in point at this moment under my care. An old gentleman, aged 80, has a tight subpubic stricture, and some very slight prostatic complication. His micturition is very frequent, night and day, and the urine is loaded with mucus. I run him up to No. 8 with the French elastic bougie, and beyond that there is no progress. I then attack him with the steel-sounds; and at three sittings I pass 7-9, 8-10, 9-11, 10-12, and that with very little distress. His urine is now perfectly clear, and he does not micturate oftener than once in four or five hours.

Of forcible rupture by Holt's dilator, I have now had some experience, ranging over about fifty cases, and I have never yet had an un-

toward accident, The last case but one in which I used it was that of a gentleman 62 years of age, who had suffered from stricture for twenty years. No instrument had ever been introduced into his bladder for five years. The stricture was a very long and grisly one. After repeated trials we managed to introduce Thompson's probe-pointed catheter, and that was kept in for forty-eight hours, after which I had not the least difficulty in passing Holt's dilator and splitting the stricture. The force required to push home the rod was greater than I had ever experienced. He recovered without a single bad symptom. After the use of Holt's dilator, I still further stretch the stricture with the conical sounds up to No. 16. The patient is then provided with a couple of sounds—8-10, 9-11—with instructions to pass them at stated intervals.

I have every reason to be satisfied with this plan of treatment. The fatality following on Holt's operation must, I fear, be explained by its having been used in cases where renal disease, or some other unhappy complication, rendered any treatment perilous. In the hands of Mr. Holt himself, no plan of treatment can have been more successful. In the last edition of his work on *Stricture of the Urethra*, he states that 670 cases had been operated on by him with good results, except in two cases. I am therefore somewhat surprised to find Mr. Teevan stating that forcible dilatation was being discontinued by many eminent surgeons. With regard to the relapse after this operation, my own experience leads me to think that it is as frequent and as rapid as after any other method of treatment. I think, however, that the plan of over-dilatation which I have adopted is a great means of obviating this: it is, in fact, to some extent a combination of Holt's method and Sir Henry Thompson's. I cannot understand how external urethrotomy can be advocated in preference to any other plan of curing stricture. One may be driven by dire necessity to employ it; but I have seen enough of its difficulties, dangers, and fatalities, to prevent my ever having recourse to such an operation, provided the patient can be relieved by any other means.

ON THE DIET OF PARTURIENT WOMEN.*

By HUGH MILLER, M.D., Glasgow.

OF late years, more attention has been paid by the profession to the therapeutic value of diet in disease than formerly, and with the happiest results. Although this may be claimed justly in the treatment of diseases in general, it cannot be said with equal correctness of our management of women during the parturient period. Since the days of Dr. Burns, obstetric authorities have not only given very general directions, of a meagre description, but have shown a tendency to enforce a low dieting system of treatment. Dr. Burns recommended that the diet for "the first two days should consist of tea and cold toast for breakfast; beef, or chicken-soup for dinner", and so on. More modern writers, such as Dr. Rigby, advise "her food should be entirely farinaceous for the first three or four days, using gruel, tapioca, etc., with a due admixture of milk"; and Dr. Ramsbotham, while admitting that a plan of diet must be laid down for some days to come, says "nothing should be allowed but tea, toast, or farinaceous food". In these instructions the plan of dieting is to reduce the nutritive supply to the minimum, yet they assign no reason for doing so. From our advanced knowledge of the functions of the body, and the necessity for sustaining healthy action, we would naturally expect that these functions would best maintain their vigour through receiving the aid of a nourishing diet. I propose to inquire into the value of paying attention to the parturient woman's diet as a means of aiding her during her labour, and in her recovery from it; and endeavour to discover principles (if any) that may guide us to a proper course of treatment.

I have been led to direct attention to this subject in consequence of the following case occurring in my practice.

An English lady, slender, and of fair complexion, married about seven years, and the mother of four children, engaged me to attend her in her third confinement, which took place in December 1868. Her labour proved a tedious one, lasting over twenty-four hours. This was due to her pains being neither strong nor regular; and had it not been for the aid she received from beef-tea, brandy, and ultimately ergot, she would have required active assistance to effect delivery. When the placenta was removed, the womb contracted, but not firmly; it had a soft, flabby feeling, though reduced to the normal size. There was no extra discharge, but, about two hours after delivery, when her weakness and faintishness caused me to be recalled, I discovered she had lost a considerable quantity of blood, that it was still oozing from her, and on examination I found a clot in the vagina, which I removed.

Along with renewed doses of ergot and brandy, I began the application of cold, and had to continue this at intervals for some hours before I was satisfied I could leave her with safety. Afterwards, I learned that this lady's experience in her previous confinements had been very much like this one. Inquiring into her habits of life during the period of utero-gestation, I was told that her diet consisted chiefly of light soups, puddings, and pastry. When she was about six months "gone" with her next child, I advised her to adopt a diet having in it a daily quantity of animal food, and restricted her tastes for farinaceous stuffs considerably. In May last, at full term, her baby was born. She completed her labour in about an hour. The uterus contracted firmly. She made an excellent recovery. The baby was healthy, and the mother for the first time was able to wet-nurse her offspring.

This case is at least valuable in directing our attention to an error found in some popular books written for the assistance of our patients during this interesting period. For instance, Dr. Bull, in his *Hints to Mothers*, says "she requires a less amount of food, and that which is more simple in quality" during the latter months of utero-gestation. Now, my patient's protracted labours were evidently due to her following this instruction. Instead of being well prepared to maintain continued exertion, and to encounter shock, this low dieting, through producing a defective condition of the vital powers, not only retarded the parturient act, but prevented the due development of the milk-giving glands. There are no means so powerful to cause uterine contraction as keeping the muscular system in a healthy condition, and there is no better way of avoiding uterine inertia than having the muscles toned by nourishing diet and exercise. Were utero-gestation a diseased state, it might be necessary to reduce the system. During that period, however, we have the patient passing through a natural and a healthy process, including, in most cases, several hours of suffering, and the subsequent loss by the discharges; and it seems contrary to all known laws to reduce the amount or quality of her nutriment, and thus take from her the best safeguard which she has against many of the complications incident to this critical period. This case shows the necessity of attending to our patient's habits before labour, and of insisting that she takes a sufficiently nourishing diet.

While attention to the state of our patients before childbirth may not be always practicable, our being daily in attendance afterwards will enable us to bestow proper care upon the quantity and quality of the food to be given. This will not be always necessary; with some ladies, the question of a few days' spare dieting is a matter of no importance. Amongst the savages, where the stamina of the constitution is normal, no directions will be needed. With the working classes, it is even extraordinary how women rally; I have seen them going about and doing the household duties three days after delivery without suffering any ill effects. But with a large number, such as we find frequently in a city practice, nervous, and more or less anæmic, where the tendency is to succumb readily to any derangement, and where the slightest irregularity is an almost certain precursor of a troublesome, if not a dangerous illness, it becomes of importance to investigate into any means whereby such dangers may be avoided. Following out this inquiry, I will briefly describe the changes which take place in the female after childbirth, and then state some reasons based upon these changes which should guide us in our treatment.

With the birth of the child and the expulsion of the placenta, the uterus generally contracts, and the orifices of the blood-vessels close, preventing any further great discharge of blood through the sinuses. In a short time, a new sero-sanguineous discharge is poured out, carrying with it shreds of membrane and other waste products. The organ itself begins to undergo a process of change. This muscular body becomes disintegrated; its tissues, having served their purpose in the economy, are prepared for removal by being changed into fat-globules. In this form, the uterus is absorbed by the blood, and carried into the circulation. Meanwhile, important changes are taking place in the mammae. These glands become gradually filled with a thin serous-looking fluid, yellowish in colour, denser than the normal milk, and rich in albumen, through the small fat-globules being imbedded in an albuminous substance. This colostrum has been produced anterior to, and cotemporary with, the child's birth. In a few hours, if not withdrawn by the child, at most by the third or fourth day it disappears, and these molecules only reappear when the mother is attacked by an acute disease, supervening soon after delivery. In a state of health, these are replaced by a milk actively secreted by the mammary glands, and having new constituents, which make it, according to Dr. Rigby, "a more perfect milk." Considerable doubt appears still to be entertained as to the source of this superadded product, which gives to the milk a more plentiful supply of fat. The coincidence of disintegration of the uterus and the secretion of fat-cells in the mammae, is very striking. When we consider, too, the intimate sympathy existing between

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the uterus and the breast, we may safely conclude that the source of supply to the milk is in the newly acquired elective power by the mammae for the fat-cells derived from the uterus, and now existing in the circulation. According to Dr. Carpenter, in his *Principles of Physiology*, the quantity of colostric cells on the fourth day after delivery was nearly 42 per cent., and 24 per cent. of fat. Only two days afterwards, the colostric cells were reduced to 20 per cent., and the fat-cells increased to 31 per cent.; showing that, when once the constituents of the milk began to alter, the changes proceeded very rapidly. These colostric cells are supposed to be the epithelial cells of the mammary duct, which have undergone fatty degeneration. They soon quite disappear from the milk, because when actively secreting they exist in too small a quantity to be easily detected; the increased quantity of fat-cells remains a constituent of it for a much longer, though for a varying period. It has been observed, too, that on the onset of inflammatory action in the womb, the mammary glands cease to secrete; but when the changes in the uterus have been completed, a diseased inflammatory action may arise in it without affecting the mammary secretion. The proportion of fat-cells varies considerably; for whereas on the sixth day after delivery nearly 32 per cent. of fat-cells existed, according to Dr. Carpenter, by the thirty-sixth day only 17 per cent. was detected. Also, the secretion of milk is not affected by the renewed functional activity of the uterus when a new conception has taken place; showing that, although the condition of the womb for some time after delivery exercises considerable control over the supply of milk, ultimately the secretion is quite independent of uterine influence.

The practical value of these results will be at once apparent. Knowing that we have to contend with a living healthy condition, we aim at allowing it unfettered action. We allow nature to carry out its various phenomena, and especially with reference to diet, we so arrange it that it may neither obstruct nor retard the vital processes. In the disintegrating uterus there is an abundance of heat-giving material to the blood. It is sufficient to support heat and supply the mammae. The greater the demand, a more plentiful supply will be produced. The sooner, too, the changes in the uterus are completed, the earlier will the patient be tided over a period peculiarly liable to congestion and suppuration of the breast. Then there is no therapeutic reason for retarding uterine metamorphosis. Now, with such an abundant supply within the body, what special reason can exist for enjoining an exclusive farinaceous diet for some days? It appears to me to be not only unnecessary, but may in some cases be positively injurious. When we supply this exclusive heat-giving diet, may we not diminish the craving—weaken the demand on the circulation for the supply of carbonaceous material, and keep back the very substance nature seeks to eliminate? In a woman exhausted by her labour, and fed on starchy material, the changes in her womb will go on slowly; or, if she be vigorous, with such a diet, the breast will be irritated by having more forced upon it than it can secrete. Even the non-nourishing sloppy diet must prove injurious by supplying to the blood an extra amount of fluid, which will seek the breasts as well as the other emunctories for elimination. The aim of our treatment should be the giving of a sufficient nitrogenous diet to keep the uterus in a healthy condition, thereby facilitating the normal changes which take place during its breaking up into fat-cells, their absorption by the blood, and their selection by the milk-forming glands. For some time, I have, according to my patient's strength, and in proportion to the exhaustion in the vital powers following the fatigue of child-bearing and the loss of the discharges, given her from the first day a nourishing flesh-forming diet, with the view of maintaining her strength, of enabling her to make up the waste of muscle during labour, as well as of giving her proper support while these important changes are going on in the uterus and breast. It is not advisable, neither is it necessary, to adopt an exclusively nitrogenous diet. I believe that the correct course will be to select her diet as near as possible to the kind of food which she is in the daily habit of consuming; only let it be chiefly in a liquid form, and in diminished quantity. The advantages gained by adopting this form of nourishment may be briefly stated to be these:—

1. Maintaining the mother's strength.
2. Preventing injury through defective action during the remaining changes in the involved structures.
3. Enabling her to suckle sooner.
4. Securing a quicker and more lasting recovery.

Since allowing a liberal diet to my patients, I am certain I have seen fewer excoriated nipples after childbirth, fewer suppurating breasts, and those which I have met with were more amenable to treatment than formerly. After enumerating the usual diet which he prescribes, Dr. Rigby adds—"When she is naturally delicate, or has been weakened by a sickly pregnancy, it will be advisable to allow her chicken-broth and weak beef-tea from an earlier period." Whatever is essential to assist

a delicate person through a healthy natural function, can hardly be injurious to any one when fatigued.

Under careful management, a liberal diet may do much towards avoiding complications due to protracted labours, and in saving our patient from the long-continued debility occasionally met with after parturition.

THREE CASES OF TRICHINIASIS AFTER EATING HOME-FED PORK.

By W. L. DICKINSON, M.R.C.S., L.R.C.P., Workington, Cumberland.

A MONTH ago I was requested to visit the widow of a farmer, aged 40, and her daughter, aged 12. I found them sitting by the fire with a hot and moist skin, swollen face, oedematous legs and feet, arms and hands, difficult breathing (almost entirely thoracic), no cough, oedema of the uvula and soft palate, great prostration, and weak and quick pulse. Their chief complaint, however, was intense pain in the legs and arms, and occasionally cramps. They had no headache. The tongue was brown and dry; there was great thirst, and the appetite was voracious. The urine was copious and pale in colour. The bowels had been relieved with castor-oil. Their nights were restless, with *profuse perspiration*, which was very offensive. They had been ill three days. Two days after my first visit the servant-man, aged 26, began to have the same symptoms, only in a more aggravated form. The mother and daughter are rapidly approaching convalescence; the man is still confined to bed, and suffering considerably from great oedema of the legs and arms, and slightly of the face. To-day he was streaming with perspiration of the most offensive character. He tells me that his appetite was never better than now. Although his tongue is brown and dry, he can eat whatever is brought to him. I have examined the urine and found it acid, natural in colour and specific gravity, and free from albumen.

On my first visit I suspected that these were cases of scarlatinal dropsy, but soon discovered my mistake. I then imagined that the symptoms resembled some cases of trichinous disease of which I had read; and, upon questioning my patients, I found that they had for two or three weeks before my visit been almost daily eating sausages and roasted and boiled pork from one of their own home-fed pigs (an old sow). I brought some pieces of the lean flesh taken from the ham and shoulder for examination with the microscope. After some hours' examination, I discovered what I believed to be a trichina; but, on comparing it with some specimens of German trichinae, I was in doubt, as it was very much larger. I therefore sent portions of the same flesh to Dr. T. S. Cobbold, and he has confirmed my discovery, and will shortly publish some remarks of his own. The treatment adopted was chlorate of potash with muriatic acid, and occasional purgatives, mild diet, and afterwards iron.

SKIN-GRAFTING UNDER THE ETHER-SPRAY.

By M. A. WOOD, JUN., F.R.C.S. Eng., Ledbury.

THE subject of skin-grafting is most interesting and important; and it acquires additional interest and practical value by the fact that it may be performed under the anæsthetic influence of the ether-spray. When I adopted this plan, I doubted whether the freezing process would not so far lower the vitality of the portion of skin removed, that, being cut off at the same time from its natural source of nourishment, it would die; but, happily, a successful result has attended the experiment. The use of the ether-spray not only has the advantage of removing all the pain of cutting, but it greatly facilitates the operation, as there is no difficulty in making a most delicate slice of the frozen skin.

Before applying the transplanted skin to its new locality, I take care to thoroughly cleanse the granulations, so that no pus-globule shall act as an irritating body between the granulations and it. I find it also better to place the pieces of skin on the higher portions of the granulating surface, and not in the depressions, for in the former case the cicatrising process seems to go on more rapidly.

The only case in which I have used the ether-spray was in a lad who had all the skin on the back of the right fore-arm destroyed by a machine. As the surface for cicatrization was very large, I determined to transplant some skin. Accordingly, when the granulations became healthy, I applied the ether-spray to the skin of the upper arm and removed, with great ease, a thin and even slice about the size of a sixpence, apparently including but very little of the corium. This I divided into six pieces, and laid them on the granulations, retaining them there by strips of adhesive plaster. On removing the dressing on the third

day, I found that three of the pieces had not united in consequence of a severe bruising of the granulations from a blow; the remainder, however, were adherent, and had each shed a thin layer of cuticle. Two days afterwards they assumed a red appearance, and in five days following a pellicle of cicatrisation was seen, which rapidly extended; and thus the healing of the wound was much expedited.

GONORRHŒA AND PERITONITIS.

By GEORGE FREDERICK GILES, Esq., St. Leonard's, Hastings.

In a conversation a few years ago with the late Dr. Brinton, during an attendance on a case of tubercular peritonitis, he said that he divided peritonitis into three classes: 1, Tubercular; 2, Traumatic; 3, The Peritonitis of Prostitution (he omitted to classify the puerperal form, as being out of the range of his observation). Of the cause of the last form he was unable to arrive at any satisfactory conclusion. The frequency of the disease in prostitutes induced him to think that there must be a special cause, but no satisfactory explanation had presented itself to him. I ventured to suggest gonorrhœa. This he considered sufficiently satisfactory, and said that he should for the future accept it as a cause. Not very long after this he died, and I never had any opportunity of knowing to what extent he carried out the suggestion; but since then I have frequently mentioned the same view to hospital physicians, and they have universally considered it sufficiently important to advise me to place it before the profession for extended observation.

The Fallopian tubes opening into the cavity of the peritoneum at their fimbriated extremities, gonorrhœal matter may readily come into direct contact with the membrane. After childbirth or miscarriage this occurs with greater freedom; and in prostitutes, neglected gonorrhœa, though with less facility, may in the same manner lead to peritonitis. I was first led to this conclusion whilst attending a married lady in her confinement, whose husband had contracted gonorrhœa. He left home at the commencement of the attack, and only returned when he believed himself quite well. He shortly afterwards applied to me, saying that the disease had returned, and he very much feared that he had infected his wife. I soon felt convinced she had taken the disease, though in so mild a form that she quite believed the discharge arose from her condition, and was a natural result. She was confined, and in a few days peritonitis set in, which, without the previous history of gonorrhœa, would have been supposed to be the ordinary puerperal form.

The next case was that of a married lady who was aware that her husband had given her gonorrhœa. He himself was then suffering from it in a bad form. She miscarried at about the seventh or eighth week of gestation, and shortly afterwards had a severe attack of peritonitis. Several cases followed where the cause was strongly suspected; and on questioning the husbands, some admitted they had suffered from gonorrhœa.

In my experience, the disease differs from puerperal peritonitis in being less severe and of shorter duration, and in manifesting improvement by removal of as much of the cause as is practicable by frequent injections of warm water, and by treating the inflammation by ordinary means. No case has ever proved fatal in my practice. In one case, which struck me as being particularly characteristic, the disease was unhesitatingly acknowledged: the mother had severe peritonitis, and the child the worst form of gonorrhœal ophthalmia.

I am anxious to place these views before the profession through the medium of the JOURNAL. Medical men are frequently consulted about discharges in parturient women, and they may be induced to extend their inquiries sufficiently far to establish the existence of the disease when it may be present, and, if sufficient time remain before the confinement, to cure it. A most troublesome, and perhaps under some circumstances a dangerous, sequence may be avoided by so doing.

I have searched all the books at my command to find any expressions or opinions on the subject. Many speak of the diseases of the ovaries and uterus as causing peritonitis; but in Hodgkin's *Lectures on the Morbid Anatomy of the Serous and Mucous Membranes*, this passage occurs in the sixth lecture on peritonitis. "The peritoneal adhesions in the neighbourhood of the appendages of the uterus appear in most cases, like those occurring in the neighbourhood of the spleen, to be not accompanied by any marked or serious symptoms. From the character of the individuals in whom they are most frequently found, it is rendered extremely probable that they are induced by the inordinate exercise of the parts which they implicate." And again: "The third and perhaps the most important circumstance is, that inflammation may be communicated to this part from the uterus itself." It is obvious the author, in speaking of the "character of the individuals," alludes to prostitutes;

and it is also probable that gonorrhœa was a cause of the peritoneal inflammation, especially during the menstrual period; and it is equally clear that both Drs. Hodgkin and Brinton, and no doubt many other physicians, knew prostitutes to be frequently attacked with peritonitis.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE X.—Friday, March 10th.

Insectivora.—This term is applied to a group of animals whose food mainly consists of insects. Some of them, however, are very omnivorous; and it must be remembered that there are animals in other orders which feed on insects. The existing *Insectivora* are all small, and there is no large extinct species known. The *Galeopithecus*, the largest in the order, scarcely exceeds a cat in size; and the order includes some of the smallest animals to be found among *Mammalia*. Many are burrowing animals; a few are aquatic. They have short limbs, and nearly always five toes with sharp claws.

With regard to their teeth, the *Insectivora* are heterodont, and, as far as is at present known, diphyodont, although in many the first set is very rudimentary. There are no teeth with very defined characters, as in the *Carnivora*. The incisors and canines vary much in size in the different animals of the order; the molars are always tolerably numerous, and have more or less sharp pointed cusps. The teeth are generally simple, with a covering of enamel, and having no foldings. A few *Insectivora* have forty-four teeth; the common number is forty; in some *Shrews* there are only twenty-six.

In describing the teeth of the several families of *Insectivora*, Mr. Flower adopted the classification of Mr. Mivart. The lowest and highest forms present great differences; and there are many extinct forms. It is probable that many of the intermediate forms have gradually disappeared.

The first family of the *Insectivora* to be considered is that of the *Erinaceidæ*, of which the Hedgehog (*Erinaceus*) is the type. These are both insectivorous and omnivorous. The dental formula of the Hedgehog is $i \frac{3}{2}, c \frac{1}{1}, p \frac{3}{2}, m \frac{3}{3}$. (The molar formula in nearly all *insectivora* is $\frac{3}{3}$.) In the upper jaw, the middle incisors are very large, almost resembling the canines in *Carnivora*; they are separated in the middle line. The next two incisors are small. The canine is small, and can only be recognised by its position; sometimes it has two roots. The three præmolars increase gradually from before backwards. The last præmolar presents a slight approach to the sectorial type in having a large outer cusp and a small one behind it; this resemblance to the *Carnivora* is lost in other *Insectivora*. The first molar is the largest of the three, and the last the smallest. The molars have four cusps, one at each corner, with sometimes a trace of an oblique ridge, as if the tooth approached the type met with in *Monkeys*. In the lower jaw, the middle incisor is large, and projects forwards; this is followed by a small second incisor and a small canine. Of the two præmolars, the second is well developed, and has two large cusps. The first molar has five cusps, two behind, one in front, and two in the line between these; they may be described as lying in two pairs with a single one anteriorly, or as being two on the outer and three on the inner side. This arrangement of the cusps may be supposed to represent the sectorial tooth. The next molar presents similar characters; and the last is almost rudimentary. Such teeth are not so well adapted as those of *Carnivora* for seizing large prey, but are very efficient for seizing and breaking up insects. The milk-dentition in the Hedgehog is complete and functional.

In the *Gymnura* of Malacca, an animal evidently allied to the Hedgehog, the typical number of teeth (forty-four) is present. The snout is longer, and the canines are more developed, than in the Hedgehog. The two præmolars in the lower jaw are large. The molars are very square, having cusps at regular intervals.

In the *Talpidae*, represented by the Mole (*Talpa*), there is a difficulty in establishing a dental formula. There are apparently large canines and small and delicate incisors—the central ones, however, being rather larger than the others. Beyond these teeth is a large one with two roots; then come four præmolars and three true molars, making the total number of teeth forty-four. The dental formula of the Mole has been written in various ways. The line of junction of the præmaxilla passes in young Moles behind the fourth tooth; hence some call it

an incisor, and some a canine. The presence of four incisors on each side, however, would be an exception; perhaps it may be regarded as an approach to the Marsupial type. The question must be regarded as undecided; but it may be most convenient to regard the tooth as a canine. The præmolars are compressed and mostly conical; the last one is large. The molars present an arrangement which is very common in the Insectivora, there being three cusps on the outer side and two on the inner, connected by ridges so as to give the surface of the tooth the form of a **W**. Both the upper and the lower molars present the **W**-pattern; but in the lower there are two cusps on the outer and three on the inner side; so that the surfaces of the teeth above and below work on each other like a series of knives. The last upper molar is smaller than the others, and does not present the complete **W**-pattern, a cusp being absent. The milk-teeth are not functional, and are shed soon after birth. According to Mr. Spence Bate, who has specially examined the milk-dentition of the Mole, there is a little simple tooth with long roots; the next is more developed, and has two roots, and a somewhat wider crown.

In the North American Mole (*Condylura*), the middle incisors are larger than the others. In Scalops, they are very large. In the Mygale, an aquatic insectivorous animal frequenting the streams of the north bank of the Pyrenees, and in a larger similar animal found in South Russia, the central upper incisors are triangular and axe-shaped; those in the lower jaw are not large. The molars have four cusps on the outer side, but still present the **W**-pattern.

The Cape Golden Mole, called *Chrysochlore* from its iridescent fur, differs from the ordinary Mole in the structure of the fore limbs. The upper central incisor is large; the lower one is small. Next, in each jaw, come five teeth resembling each other, except that the hinder one is smaller. They are much compressed, are long, and are placed apart from each other, especially in the lower jaw. The molars present a **V**-pattern, and have a large inner lobe.

The Shrews, of which there are many species, have fewer teeth; but they are all sharply pointed. The central upper incisor is very large and hooked, and has a large cusp behind. After this come a varying number of small teeth, beyond which are three molars with the **W**-pattern. In the lower jaw, the central incisor on each side is large and projecting, and is provided with a variable number of pointed cusps along the upper edge. There are a small canine and præmolar; and three true molars, with the **W**-pattern. Of the milk-teeth in the Shrews, very little is known; they appear to be shed before birth. The teeth in the Shrews have nearly always a reddish-brown colour at their tips.

In the Centetes of Madagascar, there are in the upper jaw two incisors, a large canine, three præmolars, and three true molars. The latter are compressed and wide, and have three cusps and a long inner lobe. In the *Solenodon*, which much resembles the Centetes, the upper middle incisors are very large, and have cusps on the inner edge; the middle incisors of the lower jaw are small, and the next are very large. In the African *Potamogale*, an animal much resembling a smaller Otter, and feeding on fish and water-insects, the molar teeth are very like those of Centetes; the middle incisors are large in the upper jaw; in the lower, the middle incisors are small, and the outer ones large.

REPORTS AND ANALYSES

IN

MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

PATENT LATTICE CLOTH.

WE would direct the attention of those of our surgical readers who desire to employ a light and pervious tissue for surgical dressings, to the Patent Lattice Cloth introduced by Messrs. Maw, Son, and Thompson. It has an open texture, which many surgeons desiderate, and, from its lightness, cleanliness, and absence of fluff, will find great favour. It has all the advantages and none of the disadvantages of charpie.

PURVIS'S QUININE BISCUITS.

MR. PURVIS, of 87, High Street, Marylebone, has introduced a dietetic novelty in the shape of quinine biscuits. These little biscuits are extremely well made, and have a pleasant and delicate bitter flavour, not too strongly pronounced, which is exactly what a club-

man seeks in his "sherry and bitters". Each biscuit is estimated to contain a quarter of a grain of quinine; and, for delicate stomachs, or where it is desirable to disguise medicine as much as possible, or to combine food with medicine in a perfectly agreeable form, these biscuits are likely to become very popular. The uses of quinine are legion; and these quinine biscuits will easily recommend themselves to a large number of consumers, as a luxury as well as a medicine.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 25TH, 1871.

T. B. CURLING, ESQ., F.R.S., PRESIDENT, IN THE CHAIR.

ON A SERIES OF CASES IN WHICH CHANCRES HAVE BEEN CAUSED BY VACCINATION. BY JONATHAN HUTCHINSON, F.R.C.S.

THE cases to which Mr. HUTCHINSON referred had recently occurred to a practitioner in the neighbourhood of London, whose name, for obvious reasons, it was desirable not to make known, but who had expressed a desire that the unfortunate event which had taken place should be made known to the profession without delay. In February of this year, the gentleman referred to vaccinated thirteen adults from the arm of an infant four months old. The child at the time was apparently quite healthy. The vaccinated persons did not present themselves for inspection; but, so far as could be ascertained, the vesicles ran the usual course, and the scabs had fallen off at the end of three weeks. About a fortnight afterwards—that is to say, five weeks after the vaccination, sores appeared in the vaccinated parts in most of the persons. The circumstances came under the notice of Dr. Seaton, the Inspector of Vaccination; and he requested Mr. Hutchinson to investigate them, which was accordingly done during the present month. As to the infant vaccinifer, when Mr. Hutchinson first saw it, it appeared to be healthy; but, on a close examination, he found four or five condylomata about the anus. No indications of syphilis were present in the mother. The father, a Parisian National Guard, Mr. Hutchinson had been unable to see; the woman would not give his address, and he believed that the man was unwilling to submit to an examination. There could be no doubt that the child itself had not been rendered syphilitic by vaccination; its cicatrices were quite healthy, whereas, if syphilis had been introduced into it at the time of vaccination, they would have presented some of the appearances met with in the persons vaccinated from it. Subsequently to the time when the child was first seen by Mr. Hutchinson, it had fallen into a state of marasmus, with commencing hydrocephalus. Mr. Hutchinson believed that the poison was conveyed by means of blood. Of the thirteen persons vaccinated, two, to whom the lymph taken from the child was first applied, had no syphilitic symptoms. The remaining eleven, when examined about two months after the vaccination, presented indurated sores on the sites of some—not all—the cicatrices; this partial immunity Mr. Hutchinson regarded as evidence that the syphilitic virus was contained in the effused blood, and not in the proper vaccine lymph—the difference arising from the accidental separate transmission of the two fluids. He had treated all the patients with mercury internally and the application of black wash; the induration in all had now disappeared, and the sores in most were now healed. None of them had presented any of the permanent syphilitic disorders of the skin, nor had their tonsils been affected; some of them had had transient roseola, and a few some lichenous spots. Perhaps, in course of time, further evidence of syphilitic infection might appear. Mr. Hutchinson believed that the cases showed that it was possible to vaccinate from a syphilitic subject without transmitting the disease, provided that the blood of the vaccinifer were not mixed with the lymph. The transmission of syphilis by vaccination was an extremely rare event in this country; so rare, that its occurrence could form no argument against the practice of vaccination.

Dr. BAKEWELL thought that the mixture of blood with the vaccine lymph was not the only way in which disease might be communicated by vaccination. The epidermic scales which were removed in the operation on the point of the lancet might introduce syphilis. Infection might also take place in the reverse direction to that under consideration; if the person about to be vaccinated were already syphilitic, the lancet used in making the punctures or scratches on his arm might, when applied to the vaccine vesicle, introduce the syphilitic virus; so that the vaccinifer might be, though healthy, made the medium of communicating the disease.

Mr. HENRY LEE said that the idea of the conveyance of syphilis by the epithelial scales was novel, but well deserving of attention. He

had no doubt that the epidermis used in the process of skin-grafting might convey disease. He congratulated Mr. Hutchinson on the courage which he had shown in bringing forward his cases. There was in this country a great difference of opinion as to whether vaccination caused disease. Most professed to disbelieve the transmission of syphilis by vaccine matter; and the official reports countenanced this idea. Many medical men, however, and a large proportion of the public, believe that "impure blood" was sometimes communicated by vaccination. This objection to vaccination could only be met by stating openly the circumstances in which the transmission of disease might take place; and if this were done, the medical man in whose practice such transmission might seem to occur, would be protected from much obloquy. Mr. Hutchinson had said that, if vaccine lymph only were taken from the arm of a syphilitic child, cow-pox alone would be communicated to the vaccinated person. He (Mr. Lee) would go further, and say that, if a child after being vaccinated contracted small-pox, and care were taken in vaccinating from it to use the lymph of the vaccine vesicle only, cow-pox and not small-pox would be communicated. It was well known that vaccination would develop diseases already existing in a latent form in the body, such as syphilis; and if this were generally known, many medical men would be exonerated from the charge of having conveyed disease to the persons vaccinated by them. He had seen only three cases where syphilis was supposed to have been communicated by vaccination. With regard to the local symptoms of vaccino-syphilis, he thought that the matter was sometimes exuded on the surface instead of being deposited in such a way as to constitute induration. The induration of the glands was a point of great interest; it was unusual for it to occur in the axillary glands. In Mr. Hutchinson's cases, the enlargement of the axillary glands might be accounted for by the vaccination having been done at different points of the arm. Generally, where the vaccination was done at the insertion of the deltoid muscle, the glands under the clavicle became enlarged.

Mr. DE MÉRIC congratulated Mr. Hutchinson on the boldness with which he brought forward his cases. It was well known that in this country the idea of the communicability of syphilis by vaccination was generally treated with contempt; he had been often told that the occurrence could not take place. The paper which had been read, however, would change the opinions of many incredulous persons. He thought that it would have been better if the communication had been delayed six weeks or two months, so as to give time to see whether any symptoms of constitutional syphilis appeared in the persons whose cases were described. A vaccine vesicle, without any apparent cause, might show all kinds of changes; he did not, however, question the fact of the conveyance of syphilis in the instance described, but thought that it would have been better to wait for secondary symptoms. He did not agree with the statement that, if pure lymph only were taken from the arm of a syphilitic child, syphilis would not be conveyed. It must be remembered that the vaccine lymph itself was formed from the blood; and therefore it might be the means of conveying disease, though in many instances it did not do this. Systematic incredulity as to the transmission of syphilis by vaccination ought to be avoided; at the same time, the vaccine vesicle sometimes assumed an alarming appearance, which could not be attributed to the transmission of disease. He had seen cases where the vaccinated parts, without any obvious cause, assumed an appearance very like mucous tubercles. We ought, therefore, to be very careful in inferring that, in a person whose arm after vaccination presented such appearances, they were really due to syphilis. That syphilis could be communicated by vaccination, had been proved on the continent. In one instance, in Brittany, thirty or forty children had contracted syphilis in consequence of being vaccinated from a syphilitic child. The occurrence had been investigated by a Commission of the Academy of Medicine in Paris, who had ascertained beyond doubt that the transmission took place as described.

Mr. R. B. CARTER thought that syphilis might be communicated without the obvious introduction of blood. It was a common practice in taking lymph from children's arms to wait for some minutes until the vesicles became refilled; the matter then consisted of exudation, which might be capable of transmitting disease. When tubes were charged, they were sometimes partly filled, and contained clear vaccine lymph; in other instances, they contained a greater quantity, and their contents were turbid. In one instance in which he had applied to the National Vaccine Establishment for lymph, he had found the fluid in the tubes inert; and, on examination, had been led to the conclusion that it was saliva. The value of vaccination would be increased by looking its dangers fairly in the face, and not joining in the cry that we have never seen them.

Dr. DRYSDALE had vaccinated a child suffering from syphilis, and at the same time warned the parents against having other children vaccinated from it. He learned, however, that at one of the large

hospitals the child was afterwards used for the purpose of vaccinating others.

Mr. SIMON protested against Mr. Carter's remarks on the character of the lymph supplied from the Vaccine Institution. He concurred with previous speakers in thanking Mr. Hutchinson for his paper. Mr. de Méric's criticism was no doubt correct; in a hypercritical sense, it was true, the paper considered historically could not be regarded as quite conclusive, inasmuch as there was no record of secondary symptoms. Still, Mr. Hutchinson's care and accuracy were so well known that his diagnosis might be provisionally accepted as correct. He had heard comments on the general incredulity as to the transmission of syphilis by vaccination. No doubt there was a great deal of hesitation in believing this occurrence to be possible. In 1857, he had addressed a circular letter on this question to all the leading public practitioners; and, almost without exception, the answers were, that they had not seen anything which supported the idea that vaccination propagated syphilis. Among the exceptions was Mr. Hutchinson, who said that he had seen cases where he believed that syphilis had been conveyed by vaccination. Some years afterwards, in the course of inquiry, he had asked Dr. Balfour, of the Army Medical Department, whether instances of the communication of syphilis by vaccination had come under his notice among soldiers. The answer was, no. He had also again referred to Mr. Hutchinson on the subject, who said that, if he had again before him the cases which he at first believed to indicate transmission, he might now arrive at a different opinion. He was glad that the name of the practitioner under whose care the cases occurred was not made known. From all that he had heard of him, he believed him to be a man who did not deserve such a misfortune as had occurred, and one who deserved sympathy. Still, a vaccinator ought to satisfy himself that the child from whom he took the vaccine matter was healthy. Was this done in the present instance? Were the condylomata present when the child was used for vaccinating? It was quite certain that blood became mixed with the lymph; and the blood of syphilitic persons conveyed syphilis. A person, then, who in vaccination conveyed the blood of one person to another, ought to be able to warrant the freedom of the transmitted blood from syphilis. The admixture of blood was not necessary to the performance of the operation of vaccination; and this being the case, and blood being capable of transmitting syphilis, it should be considered bad practice to take blood in vaccinating. There was also another question. The syphilitic material, in all probability, existed in particles contained in the blood. The corpuscles of the blood, it was now well known, passed out of the vessels; and they might thus become important agents in the conveyance of such particles. If this were the case, inflammatory effusions would be a source of danger; and the vaccinator should be very chary of drawing lymph from a vesicle after the formation of an areola. The formation of the areola indicated a process accompanied by a migration of white corpuscles; and if these conveyed particles of syphilitic contagion, then these particles would be contained in the fluid which was used. In England, the instances in which there had been even an imputation of the transmission of syphilis by vaccination were too rare to be analysed; but several undoubted instances had occurred in Italy, France, and Germany. This difference, Mr. Simon believed, was to be explained by the fact that in England the lymph was taken on the eighth day, when the areola was scarcely formed; while on the continent vesicles ten days old were often used for the supply. In the Rivalta case, and in one which occurred in Naples, the lymph was taken on the tenth day. At this period, the lymph had become mixed with migrated white corpuscles and other products of inflammation. He would suggest that the Society should express an opinion as to what was good or bad practice in vaccination. It might greatly help the Government by showing what were the real dangers arising from vaccination, and how they might be avoided. It would be advantageous to refer the paper to a Committee, who should report on it and show how the evil might be avoided in future. Vaccination afforded the safeguard against what must be regarded as the most terrible pestilence of our times; but there was among the public an exaggerated idea that it caused all kinds of evils; and what if the general confidence in vaccination should be seriously shaken? There was a compulsory vaccination law; but if every parent were to think that syphilis was likely to be given to his child when vaccinated, such an idea would, if anything could, justify a rebellion against the law. The profession must examine into all the sources of danger, and relieve the public from apprehensions which would be justified as long as the matter remained unsettled.

Mr. HENRY LEE proposed the adjournment of the discussion to the next meeting of the Society. Mr. R. B. CARTER seconded the motion, which was carried.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 18TH, 1871.

J. COOPER FORSTER, Esq., Vice-President, in the Chair.

MR. ARNOTT exhibited a specimen of Soft Cancer of the Breast removed by Mr. Nunn at the Middlesex Hospital, with a drawing of its microscopic structure. It occupied the whole of the breast, and had been first observed by the patient ten months previously. The case was peculiar from its diagnostic difficulties, it being thought by all who examined it to be a cystic sarcoma. Histologically, it was an example of cancer occupying a mid-position between scirrhus and medullary, serving to prove the real identity of these two forms of disease, the hardness or softness of individual cases probably depending mainly upon rapidity of growth. Mr. Arnott therefore considered that by the terms scirrhus and medullary merely a difference in consistence should be understood.

Dr. MURCHISON brought forward a specimen showing a Fistulous Communication between the Gall-Bladder and Colon, taken from the body of an old woman who died with epithelioma uteri. The cystic duct was not patent, and there was chronic thickening of the gall-bladder. A gall-stone had at some previous time passed.—In answer to Dr. CRISP, he replied that, although almost all fistulous openings were between the fundus of the gall-bladder and the bowel, still he had seen cases between the common duct and the bowel.

Dr. DUCKWORTH exhibited a Gall-Stone which had passed by the Umbilicus. There was no previous history of gall-stone. The stone was composed mainly of cholesterine.

Dr. MURCHISON exhibited a specimen of Incipient Acute Atrophy of the Liver which had supervened upon the passage of a gall-stone. It was taken from the body of a man, aged 66, admitted into the Middlesex Hospital on October 11th, after seven weeks' illness from acute biliary symptoms, which now disappeared, with the exception of the jaundice. The urine was found to contain tyrosine, and the cerebral symptoms which had supervened steadily increased. There was still a considerable quantity of urea present in the urine. Albumen appeared latterly in the urine. For several days before death the temperature was normal. Many of the symptoms rendered it somewhat difficult at first to decide whether the case was one of pyæmia or acute atrophy of the liver. After death, the bile-ducts were found greatly dilated, and the liver in the early stage of acute atrophy; and crystals were found in the organ after steeping in spirit. Pus was also scattered in the liver and in the cortical substance of both kidneys.—Dr. PYE SMITH alluded to a case at Guy's Hospital in which there was no albumen, and the temperature fell two days before death.—Dr. DICKINSON said that in so-called spontaneous pyæmia there had generally been some internal cause, such as biliary calculus. Such cases had been related by Dr. Murchison himself. He had, however, also seen pyæmia result from renal calculus, and related a case in illustration.—Dr. MURCHISON remarked that, in addition to cases of pyæmia resulting from gall-stone, he had seen two cases following simple ulcer of the stomach.

Dr. CRISP brought forward a specimen of Aneurism of the Coronary Artery affecting the first branch given off between the aorta and auricle, which ruptured into the pericardium, causing sudden death. The man brought up a large quantity of blood, but the source could not be discovered. Dr. Crisp replied to Dr. Powell that the heart's action during life was very feeble and irregular when excited. He replied to a question of Dr. Wiltshire's respecting the cause of the bringing up of blood, that there was no liver-disease present.—Dr. CHURCH referred to a case of a child eleven years of age, who died of aneurism, in whom there was no history of violence.

Mr. GEORGE LAWSON exhibited a Hand which he had Amputated at the Middlesex Hospital on account of the following extraordinary Injury which it had received from Machinery. The boy was engaged feeding a paper-machine, when his hand was caught between the rollers, which were sufficiently close to grip the skin without seizing fast hold of the hand. Instead of the hand and arm being drawn in between the rollers and crushed, the skin was torn as if by a clean cut just above the wrist, and drawn from the hands and fingers as far as the last phalanges, to which it remained attached, and from which it hung like an inverted glove. Several of the phalanges were considerably crushed.—Dr. EDIS asked if the skin could not have been again engrafted.—Mr. LAWSON replied that, as the phalanges were crushed and all vitality probably gone, he thought not.—Mr. HULKE, who had seen the hand before operation, agreed in this opinion.—The PRESIDENT thought it judicious in severe injuries in children, such as that described, to operate at once.

Mr. THOMAS SMITH shewed a remarkable specimen of Cystic Disease of the Breast in connection with Calcareous Degeneration of Scir-

rhous Cancer, taken from an old woman of a thoroughly cancerous family. Mr. Smith, in reply to Mr. Hulke, stated that the microscopic characters were those of cancer.—Referred to Committee.

Mr. HENRY MORRIS exhibited a Medullary Sarcoma of the Fibula of three months' duration, which entirely surrounded the fibula, and infected all the tissues of the leg. It was limited to the shaft of the bone, and was separated from the epiphysis of the cartilage. The microscopic characters were more those of sarcoma, while the naked eye appearances were more those of medullary cancer.—Referred.

Mr. MORRIS exhibited a Venous Tumour of the Cerebrum taken from the body of a man aged 38, who, with a marked personal and family history of drunkenness, had been knocked down when nineteen years of age, and had, off and on, since suffered from epilepsy. He had also been insane for several months. He ultimately died of bronchitis and pneumonia. The disease was situated at the left side of the posterior angle of the right cerebral hemisphere, and was composed apparently of dilated veins containing yellow coloured material. There was no brain-tissue between the vessels. Mr. Morris, in answer to the President, replied that the tumour was nævoid, but formed of large veins.

Dr. MURCHISON brought forward a specimen of Diphtheritic Inflammation of the Trachea from a man aged 24, in whom there was no laryngeal symptoms for a month, and no albumen in the urine until the disease was far advanced. The membrane was entirely cellular, as had been previously demonstrated often at the Pathological Society.

MEDICAL SOCIETY OF LONDON.

MONDAY, MARCH 27TH, 1871.

ANDREW CLARK, M.D., President, in the Chair.

THE PRESIDENT narrated the following cases to illustrate some points in the treatment of Perityphlitis. CASE I was given to show the baleful influence of purgatives. The patient was a young lady aged 24, who three nights before Dr. Clark saw her had been seized with pain in the right side, vomiting, and general disturbance. Powerful purgatives had been given. Dr. Clark recommended that the bowels should be locked with opium, the patient kept quiet, and local sedatives applied freely. The medical man who had been in attendance on the case took a different view, thinking that the symptoms were still due to an accumulation of fæces. Dr. Clark retired from the case, and another medical man was called in, who agreed with the gentleman already in attendance. Stronger purgatives were therefore ordered. The patient becoming worse under this treatment, Dr. Clark was again called in, but could not attend. His colleague Mr. Adams attended, and, finding a swelling, made an incision, when a quantity of foetid pus escaped. The patient died in a few days. At the necropsy, no fæcal accumulation was found, but the mucous membrane of the cæcum was found ulcerated. CASE II was given to show that serious consequences may ensue from not giving purgatives. The patient was an Eton boy, who was suddenly seized with pain and swelling in the right iliac region. He was feverish; the temperature was 103 deg.; pulse quick; vomiting also was present. Dr. Clark thought that in acute cases vomiting occurred; but that in chronic cases, constipation might come on gradually without vomiting. In this case there were vomiting and constipation. Opiates were given; leeches were applied to the side of the abdomen; the administration of food by the mouth was suspended, nutritive enemata being given by the bowels. The case progressed very well; the vomiting ceased, and the pain subsided. His friends being anxious to have him with them, he was removed to London. Soon after his arrival he was seized with a sudden pain in the old situation, and a large swelling rapidly formed, which on examination was found to be situated in front of the original tumour. This appeared to the author to be due, not to a relapse but to an accumulation of fæces; he therefore strongly recommended that the bowels should be cleared by an enema of castor-oil. This advice was opposed by his surgical colleague, who thought it would be unsafe. The advice of the senior was taken. However, as the pain increased and the pulse ran up, an aperient was again urged. Castor-oil was administered by the mouth. The patient being in bed, the lower part of his body and hips were raised, and more than a quart of water was thrown up into the bowel. Enormous blocks of fæces were discharged, the swelling subsided, and the boy soon recovered. At Eton a year seldom passes without a recurrence of such cases, which may be due to over-exercise. The third case resembled the preceding in its symptoms. The abdomen was leeches, and the patient was fed by the bowel. In three weeks the pulse and temperature were normal. Then arose the question, whether the boy might be removed; and, as there was neither pain nor tenderness for a week, the boy was removed to London; yet

the day afterwards he suffered from a relapse, having pain and tenderness in the right iliac region, sickness, and a high temperature. The iliac swelling was still there. This case seemed to teach that a patient ought not to be moved until the pulse and temperature have been normal and settled for some time.—Dr. HABERSHON said that, if the treatment were borne out in practice, many valuable lives might be saved. The first was a difficult and unusual case; suppuration had taken place behind the cæcum. In the other cases, a considerable amount of obstruction was present. These cases often commenced with inflammation of the mucous membrane of the cæcum: the feces accumulated and the various symptoms followed. He strongly advised soothing remedies. The boys at Eton, he thought, having command of plenty of money, often ate food not suited to them, and, among other things, more oranges than were proper. He advised the avoidance of purgatives and the use of warm applications, leeches, and sedatives of all kinds, the patient being kept quiet and fed by enemata. He thought that this complaint was especially met with in strumous subjects.—Dr. SIMMS thought that if a boy had taken a piece of indigestible food which had arrived at the cæcum and set up inflammation, a dose of castor-oil and laudanum given early might remove the exciting cause.—Mr. MAUNDER said that some years ago he was called to tap an "ovarian cyst", but, on coming to examine the case, he found it was one of perityphlitis. He thought that pus was present, but desisted from any surgical interference; and in a short time it made its escape at the umbilicus, and the patient recovered. In a second case there were pain, constipation, vomiting, and an emphysematous swelling, giving a tympanitic note; the fluctuation extended below Poupart's ligament, but the lower limb became emphysematous, and the patient died. He thought that surgical interference was indicated in many of these cases.—Dr. ROGERS had seen a case of perityphlitis in which the swelling, being tympanitic, was not interfered with, although it was thought that pus was present. In two days pus was discharged with fecal matter, showing that the cæcum had ulcerated. The patient recovered without a fistula.—The PRESIDENT narrated a case where a large accumulation of pus took place. Much tympanitis was present. An opening was made, and much foetid pus discharged. The patient died. The necropsy showed that the matter did not communicate with the bowel.—Dr. ROUTH said that it was a good practice to smear the abdomen with extract of belladonna. He thought belladonna a remedy of very great value.—Dr. HAMILTON mentioned a case of an officer sent to treat with some Indian tribes, who was cruelly ill-treated and stuffed with corn-cake. On returning to his friends the ordinary enemata, purgatives, and large doses of belladonna, were tried without success. He was relieved at last by an enema given through a long tube introduced far into the bowel.

Mr. J. D. HILL communicated a case of Resection of the Elbow-joint, showing the amount of movement attainable after that operation. The patient, aged 32, had sustained a compound comminuted fracture of the right olecranon nearly four years ago. As the external wound was small, an attempt was made to save the joint; but a month afterwards, owing to the exhausted condition of the patient, excision was performed without delay. Recovery was rapid, the wound having healed in five weeks, and in three months good motion was restored. The chief points upon which Mr. Hill laid stress were: the long straight incision at the back of the joint; the preservation of the attachment of the muscles, especially the brachialis anticus and biceps; the application of a chain-saw cutting from within outwards, to avoid manipulation of the soft parts; the reparation of the sawn surfaces by slight extension; the retention of the limb upon interrupted rectangular splints, so as to provide for the bones being kept steadily open during the healing process. Mr. Hill stated that the patient had almost complete control over the brachial muscles, the power of flexion and extension being very good, and pronation and supination nearly, if not quite, as free as in the corresponding limb. In testing the muscular power, it was found that he could carry a bucket of water; and in his trade as carpenter he could use a saw, a hammer, and gimlet; he also could write a good hand. The pathological specimen and cast of the case were also shown.

Dr. SIMMS read a case of Epilepsy following the passage of a Pin through the Intestines. H. T., aged 10, was admitted into the West London Hospital in September 1868, as an out-patient. Her family history was good. She had always been subject to lowness of spirits and occasional slight attacks of stupor and momentary loss of consciousness. Three years previously she swallowed a pin, which first stuck in her throat and then passed downwards. After this the epileptoid attack gained ground during four months. Then a most violent epileptic seizure occurred, followed by coma of some hours' duration. Hardly a day passed without one or more fits, sometimes three or four. On the 16th February, 1869 (five months after admission), the pin was passed. She had no more well-marked fits, but fainted on several occasions, until the 21st May.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, MARCH 25TH, 1871.

JAMES STANNUS HUGHES, M.D., President, in the Chair.

DR. HAYDEN presented a case of Cerebro-Spinal Meningitis, the pathological appearances in connection with the brain and its investing membranes usually observed in that disease being well marked. The patient was a man, twenty-two years of age, of temperate habits. He was admitted to hospital on the seventh day of his illness, which exhibited many of the symptoms of typhoid fever. There was, however, neither diarrhoea nor eruption; while the headache was most persistent, and was accompanied by complete insomnia. The man succumbed at the end of three weeks. All the thoracic and abdominal viscera were healthy, with the exception of the presence of a few crude tubercles in the apex of one lung. The cerebral pia mater was injected generally, and the anterior and middle subarachnoid spaces contained a somewhat viscid serum. In the reflection of the arachnoid membrane lining the floor of the fourth ventricle was a cream-like substance. This, when examined under the microscope, was found to consist of white blood-cells, or pus-corpuscles, and some groups of red blood-discs. No fibrinous materials were detected.

Mr. O'LEARY showed an enormous Cystic Myxoma which he had removed from the left parotid region of a woman aged 45. The tumour had first appeared twelve years ago at the angle of the left jaw. At the time of the operation it weighed nine pounds eight ounces. It was firmly attached to the zygomatic arch by fascia, and to the masseter muscle by fibrous tissue, and was quite external to the pterygoid muscles. The fibrous attachment to the masseter formed its pedicle, and contained its nutrient arteries. A vein of great size traversed the lower external face of the tumour, a branch of the external jugular, which necessitated the adoption of measures to prevent the accident of canalisation from occurring during the operation.

Dr. MACDOWELL exhibited a specimen of Rupture of the Thoracic Aorta. Unfortunately, the clinical history of the case was wanting. A woman, about sixty-five years of age, was found in a fainting condition in the street by a hospital student. She was pale and almost pulseless. When admitted she could swallow, but was speechless and pulseless. In a few minutes she died. The pericardial sac was found distended with blood. About an inch above the sinuses of Valsalva a rupture of the aorta had occurred. This had lacerated the lining membrane of the vessel, a valve or flap being thus formed, and had passed through the remainder of the arterial wall. Just above and externally to the pericardium, the blood had escaped and flowed round the great vessels. A further passage into the neck had evidently been prevented by the thoracic-cervical septum. Finally, pressure of the extravasated blood had caused the serous membrane to give way, and a rush of blood took place into the pericardium, proving instantly fatal. There was no aneurismal dilatation of the aorta, and only slight evidences of disease were present in the neighbourhood of the rupture.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, APRIL 5TH, 1871.

JOHN THORBURN, M.D., President, in the Chair.

Polypoid Hematoma of the Uterus.—Dr. HADDON showed two specimens to which he gave this name. Considering these in connection with one which he had reported some months ago, he was inclined to believe that they exhibited a form of retained menstruation hitherto undescribed. One of the patients was a lady twenty-eight years of age, and unmarried; another was a woman of the same age, married five years, but who had never been pregnant; and the third was a married woman who had borne two imbecile children. He believed the natural history of these cases to be the following. At the monthly period, the menstrual discharge, having been prevented from leaving the uterus, coagulated and formed the internal and more solid part of the clot. At the next, or some succeeding period, when the uterus had become enlarged by the irritation of the coagulum, the discharge became profuse, and a thin coating coagulated over the old clot. The uterus enlarged till the mass was expelled, and the discharge then ceased. It would seem that impregnation had little to do with such cases, the only necessary conditions being an occluded os and a certain chemical constitution of the menstrual fluid.

Biliary Calculi.—Dr. HADDON showed a gall-bladder packed full of calculi.

[To be continued.]

THE Subscriptions to the Association for the year 1871 become due in advance on January 1st. All which are not already paid, should be forwarded to the General Secretary, Mr. T. Watkin Williams, 13, New Hall Street, Birmingham; or to the Secretaries of Branches.

BRITISH MEDICAL JOURNAL.

SATURDAY, APRIL 29TH, 1871.

HOSPITAL REFORM.

It would seem to be a necessary part of the organisation of medical relief, that the aid which the State grants to the pauper classes should not be injured and confused by a demoralising interference of private charity which asks no questions. It has been said that medical relief cannot be jobbed; and on this ground the Government, in introducing reforms in the administration of the Poor-law in 1867, were disposed freely to extend that part of the public relief which belonged to the pauper sick, and to distribute its burdens over a wider area than other Poor-law charges. By the introduction of the dispensary system in principle, and by the adoption of the chief reforms urged by the Workhouse Infirmary Association, the legislature purported to make an efficient provision for the destitute sick poor. We may be permitted to congratulate the members of our profession, and especially many of those who were officially connected with that Association, and took an active part in preparing public opinion and in moulding the ultimate form which it assumed, that that great and humane work has, during the last four years, led to results vastly beneficial to the sick poor. The provision now made for the destitute sick, if not yet complete, is incalculably superior to that which existed but a few years since, and excels that of any other country. To their efforts are due those invaluable asylums, but for which it is hard to say how the population of London could have met the epidemics of relapsing fever and of small-pox which have heavily overtaken even these enlarged resources—epidemics which have been brought upon us by defects in other departments of central and local administration to which the profession, and more especially the British Medical Association, have long directed attention, and to remedy which they obtained the appointment of the Royal Sanitary Commission.

The improvements in the legal provision for the destitute sick which they have obtained leave it incumbent on them to inform the public mind to what extent hospitals and dispensaries can and should be relieved from the pressure of needy applicants for medical relief who still crowd the out-patient rooms and make heavy drafts upon the public purse. It has been estimated that in London 1,000,000 persons, or nearly one in every three receive gratuitous relief. From a return published by the Hospital Sunday Committee of Liverpool, it appears that 115,000 received gratuitous hospital relief in that town during the year 1869: add to these 30,000 treated by the Poor-law medical officers, and it has been deduced that 150,000 persons, or rather more than one person in every four, received gratuitous medical relief during the year.

Those charitable persons who give their money to hospitals and dispensaries have unquestionably an underlying belief that, in making the medical officers, so to speak, their almoners in distributing relief in kind to sickness, they insure against abuse. And, inasmuch as the medical officers of such institutions are themselves commonly associated with them as large donors of indispensable necessities to the institution—of their skill, time, and labour—they may well suppose that they have a complete security against abuse of their benevolence. It well becomes, therefore, medical men, having done their best to secure ample provision for the destitute sick, to look to the extra-national provision for sickness made by the benevolent, to endeavour to check abuse, and to procure a co-ordination of public and private effort,

and to inform these benevolent persons that our system of hospital relief needs reform.

Hence we cannot but regret that the meeting last week at Berners Street, to receive the reports of the Subcommittees appointed at a former meeting to pursue inquiries as to abuses of out-patient department of hospitals, was painfully ill attended. Notwithstanding the issue of nearly eight hundred invitations, the attendance was extremely thin; and it was emphatically an example of that kind of parliament which abounds in speakers rather than hearers. With a few exceptions, the seniors of the profession were remarkable for their absence. Nor was the meeting more liberal than numerous; for an urgent plea of the chairman to cover the deficiency, already made known in the funds necessary to cover expenses elicited a total response of ten shillings. It is difficult to say what can explain or justify this sudden chilling of the interest expressed by the large meeting which originally appointed the Committees. The subject has lost none of its importance, and there has been no lack of vigour in the Committees in preparing their reports. These reports are open to criticism, but they deserve much praise; and even hostile criticism would be less mischievous than the complete apathy with which the Committees have to reproach the unnatural authors of their being. We give in another column the resolutions as they were carried. If not immediately acted on, they will still remain on record as the vigorous expression of a series of evils which will one day be remedied more or less upon the lines here marked out.

DEATHS FROM CHLOROFORM.

WE have for some time, as our readers are aware, attached importance to the record of deaths from chloroform. It is very desirable that the records of the relative mortality of anæsthetics should be as nearly complete as possible. Anything like completeness can only be attained by perfect frankness in publishing them on the part of those to whom such unfortunate accidents occur in their practice. We cannot help thinking that it is really in their own personal interest, as well as in the great interests of science and humanity, that there should be no holding back of cases or details. The more fully such publication is made, the more clearly the inherent risks of the administration of anæsthetics will appear, and the less reason there will be for any person or institution to desire to cover the facts or even to omit to make them known. Probably owing to the interest which we have shown in these statistics, the JOURNAL has become the chief British centre of information on the subject, and the record of current fatal cases in these columns has been for several years the only one which approaches completeness. We regret to have to add this week some further notes of fatal cases.

The Swansea case is one of considerable importance for study. The recovery of the patient and subsequent death suggest the propriety of yet further investigation of the modes of death by chloroform and the means of averting it. It is only by such careful contributions to the history of chloroform deaths that we can hope to make progress; and the omission to record the details of death has the double disadvantage of vitiating the statistics which enable us and our patients to measure the risk, and of keeping back the facts essential to a complete study of the modes of death and the means of averting it. We cannot help expressing regret, in this connexion, that the hint which we threw out lately respecting the Edinburgh Infirmary has not been taken. A distinguished member of the staff, in correcting the *post mortem* details of a case of death from chloroform, of which a note was forwarded to the JOURNAL by an occasional correspondent, observed that this was the first case in his practice at the Infirmary since chloroform was introduced there. We pointed out at the time that the question which is important is not at all to know in whose practice such deaths may have occurred, but their number, their circumstances, the symptoms, disease, and *post mortem* condition of the patients. It would be a mistake carelessly to infer from the wording of Dr. Gillespie's letter that this was the first case which had occurred at the Infirmary; and indeed, while

limiting his statement to his own practice at the Infirmary, he seems to exclude any reference even to his own experience elsewhere than at the Infirmary. We shall not, we think, be wrong in expressing the belief that not fewer than four deaths from chloroform have occurred at the Edinburgh Infirmary, if not five. Their occurrence is, of course, not discreditable; but we are by no means so sure that the omission to record them is wise or altogether consonant with the principle which should prevail at this great institution, where all that can give information as to the dangers of chloroform and the means of averting them should, we think, be as sedulously published as the inducements and methods for using it have been. Edinburgh and its Infirmary are indissolubly connected with chloroform in the history of surgery. An example of complete candour and scientific impartiality would well become it. Who will do the profession the favour to record the cases of death from chloroform which have occurred in the Edinburgh Infirmary, other than this last, which was clearly not the first? Who will supplement the omission to record private cases of death from chloroform in Scotland?

In England, the formality of a coroner's inquest usually affords information of such deaths, and it is chiefly from English sources that our knowledge on the subject comes; but unrecorded deaths elsewhere would appear to be very numerous. The *New York Medical Journal* refers to thirteen unrecorded cases in the immediate vicinity of Cincinnati, reported to the Cincinnati Academy of Medicine in October 1870, as having occurred since 1848, the date of the introduction of chloroform there. In five out of the six cases of which details are before us, the operations were of a minor character: two for extraction of teeth, one for fistula *in ano*, one for reduction of dislocation of shoulder-joint, and one in the practice of an oculist. The great frequency with which chloroform has proved fatal where it has been administered to produce only momentary insensibility to pain, has now been frequently observed. It is especially desirable to emphasise it now that the protoxide of nitrogen affords a means, which has thus far proved absolutely safe, of effecting such insensibility. It is highly doubtful whether henceforth chloroform ought not to be absolutely prohibited for extraction of teeth, as we ventured to predict it might be when the protoxide of nitrogen was first introduced to the profession in England in these columns by Dr. T. W. Evans, then of Paris, but now, we believe, driven by revolution to London. Up to that time, its use, previously confined to American dentists, had been still further limited by the large size and stationary character of the reservoirs. The improvement which was introduced by Mr. Ernest Hart, of condensing the gas under pressure into portable iron cylinders, has rendered it universally available. At first, the suggestion in these columns of the use of the compressed gas in cylinders was very loudly ridiculed; and we were told by our learned contemporaries that surgeons and dentists would never bring themselves to employ vessels as explosive as bomb-shells. The predictions, however, have not fulfilled themselves. Since the first vessels of compressed protoxide of nitrogen were used by Mr. Hart in the operating-theatre of St. Mary's Hospital on April 15th, 1868, cylinders of this kind have been very largely employed. Their use is so far extending, that to supply and fill them has become a business of some importance in London. We are far from thinking, however, that it has yet attained its full and just extension. The use of protoxide of nitrogen as an anæsthetic is now so thoroughly simplified, that it ought, in our opinion, to form part of the familiar resources of every hospital and infirmary. For a very few pounds, an apparatus for making and keeping the gas in quantities of fifty gallons is now obtainable. A pound of nitrate of ammonia supplies about twenty-five gallons of gas, at a cost of about a shilling. An average of about seven gallons of gas is stated to be required for complete anæsthesia, which is effected in little more than a minute. The compressed gas is regularly furnished to dentists by more than one manufacturer in town, who has a stock of cylinders, and charges them as required with pure gas. Thus, whether for large or small institutions, there is no difficulty in adopting its use for suitable cases. Its wonderful immunity thus far from acci-

dents recommends it far more than the rapidity and agreeable character of its action. A certain slowness to adopt changes and to accept new-fangled ideas is a very just and proper attribute of surgery; but when we have on the one side an anæsthetic charged with causing death in one in every twenty-five hundred cases, and another which has been safely employed in certainly over a quarter of a million of cases, there should be no hesitation in adopting the latter in the cases for which it is suitable—such as dental extractions; incisions, no matter how deep or extensive; reduction of dislocations; refracturing of bones, or breaking down adhesions of joints; the majority of ophthalmic operations; division of fistulæ; application of cauteries; forcible dilatations of the mucous passages; and the like.

We shall venture also to express the opinion that the inconveniences incidental to the administration of ether have too great weight with our administrators of chloroform generally; and that, if the patient were frequently given the choice, he would more often prefer the inhalation of ether as an anæsthetic, which is practically safe, to chloroform, which, though easier of application, is by far the more dangerous agent. The difficulties of administering ether are certainly not such as need deter careful and intelligent operators from promoting its use. By using Snow's inhaler and Sibson's mask, they are reduced almost to insignificance. It never failed, in any one case in Snow's hands, to produce anæsthesia, generally rendering adults insensible in four or five minutes, and children in two or three minutes.

The exclusive use of chloroform is almost confined to this country. We are disposed very earnestly to plead for a more extended employment of ether and of protoxide of nitrogen. Nothing has yet been found to rival chloroform for universal convenience; but convenience may be too dearly purchased. It is, if the price paid seems to involve a sacrifice of life—and of life doubly sacred to us, because specially entrusted to our keeping. On these grounds, we urge a revision of our customary anæsthetics in this country; and, as the facts lie before us, they support the absolute interdiction of chloroform for dental extractions, the substitution of protoxide of nitrogen for these and for minor surgical proceedings such as we have indicated—and the substitution of ether for chloroform inhalation over a large range of surgical cases. What we may lose in convenience we shall gain in safety.

TRANSMISSION OF SYPHILIS BY VACCINATION.

THE unusually large attendance of members and visitors at the meeting of the Royal Medical and Chirurgical Society on Tuesday evening, was in itself evidence of the interest excited by the announcement that some instances of the communication of syphilis by vaccination would be brought forward. A startling series of facts were related in Mr. Hutchinson's paper—of which, and the discussion following it, a report is given at another page. On the Continent, there have been several well-established instances, which we have from time to time laid before our readers, of the transmission of syphilis by vaccination; but in this country nothing deserving the name of an example of this untoward result had been recorded previously to that related by Mr. Thomas Smith, on which we lately commented, and those now brought forward by Mr. Hutchinson. The result of this absence of facts has been, that our profession here has always been very incredulous as to the possibility of such a misfortune amongst British vaccinators; but now the opinions of sceptics must undergo a change. It was, indeed, pointed out in the course of the discussion that the cases had not yet presented secondary symptoms, and that the vaccine vesicle sometimes ran a very erratic course; but the well-known accuracy of the observer, and the occurrence in eleven persons, after vaccination from a syphilitic child, of local phenomena presenting characters generally recognised as those of syphilis, render very small any loophole of escape for those who would hope that the cases were not examples of syphilis after all.

We took occasion, when Mr. Smith's case came before the Clinical

Society at the commencement of the year, carefully to analyse the evidence as to the mode in which syphilis may be conveyed, in the event of the symptoms in the vacciner being so occult as to elude a properly careful examination—a circumstance which must be infinitely rare. The whole weight of evidence (see *BRITISH MEDICAL JOURNAL*, Jan. 21st, 1871, p. 69) was in the same direction then as now, and indicated the blood accidentally drawn and transferred in the operation as the source of infection. If this can be absolutely established, it will be a matter of the greatest possible importance. At any rate, we are clearly justified in urging the mass of evidence in favour of this view on the attention of vaccinators.

The Royal Medical and Chirurgical Society has the obvious duty incumbent on it of following out the suggestion of Mr. Simon, and formulating and making generally known the lessons to be derived from such occurrences as this. In the meantime, one thing is, we fear, certain: that those misguided and mischievous persons who make it their business to decry vaccination, will find in Mr. Hutchinson's narrative a fresh supply of ammunition, and a means of exciting public alarm and opposition against cow-pox. The public, however, should be made to understand distinctly that the transmission of disease in the way described is of infinitely rare occurrence, so much so as scarcely to deserve consideration in comparison with the benefits which vaccination has conferred in protecting us against one of the most terrible pestilences that afflict mankind. On the other hand, the occurrence of mishaps must and will not be ignored by the profession; and it will be for them to consider earnestly how those which are avoidable can be best avoided, and how one of the greatest blessings conferred on mankind may be prevented from assuming—and even deserving—in any instance, the character of a curse.

THE LUNACY REGULATION BILL.

THE Lunacy Regulation Bill being set down for the second reading on Thursday night (to-night), Sir D. Corrigan has put on the paper notice of the following amendment to Clause 4, of which we have had occasion energetically to point out the injustice.

“That the medical officers sending in reports to the Court of Chancery, under such Act, shall be paid such fees as the Lord Chancellor may from time to time direct and appoint.”

Besides the other measures which the Poor-law Medical Officers' Association of Ireland have taken to support Sir Dominic Corrigan (who was, we believe, moved to this action at their instance), they have addressed circulars to Irish members, begging them to attend and to see justice done to the medical profession. In addition to what has been written in the *JOURNAL* to aid the Irish Poor-law medical officers to remedy their grievance of compulsory gratuitous certification of dangerous lunatics, communications have been addressed to Lord O'Hagan, who has charge of the Bill, assuring him of the sympathy of the British Medical Association with the just claims of the Irish medical officers; and that, unless means be taken at this stage to meet them, the political influence of the members of the Association will be employed at the subsequent stages to insure this end, at the risk of obstructing the progress of the measure. The Parliamentary Committee of the Association will also give their aid to assist in securing for the resident medical superintendents of asylums in Ireland a superannuation equal to that accorded to their brethren in England.

We hear from an indirect source that Lord O'Hagan will withdraw Clause 4, to which, in the name of the Poor-law medical officers of Ireland, we have raised objection. If this be so, let us say frankly that the credit of this concession will have been due mainly to Dr. D. T. T. Maunsell and Dr. Speedy of Dublin, by whom our attention was first drawn to this part of the subject, and by whom Sir Dominic Corrigan was moved to the efforts which have, it is stated, already proved successful. There will be the greater encouragement to press respectfully for a just consideration of the claims of the medical superintendents of asylums, of which we give particulars in another column. Their num-

ber being smaller, they have less powerful means of helping themselves, but not less strong claims upon the assistance of their professional brethren of our Association.

THERE is a serious project, according to the *Gazette Médicale de Lyon*, for transferring the French Medical School and Faculty of Strasbourg to Bordeaux.

THE Annual Oration of the Medical Society of London will be delivered by Dr. Cholmeley, at the Hanover Square Rooms, at 8 p.m. next Monday. A *conversazione* will be held after the conclusion of the oration.

THE epidemic of typhoid fever is spreading in Vienna. Three members of the medical staff of the hospitals have fallen victims. One of the hospital medical officers, while suffering from the disease, lately sprang from a window of the first storey of the Rudolf Hospital into the court, without receiving any injury.

YELLOW FEVER IN BUENOS AYRES.

REPORTS dated March 16th state that yellow fever is making great ravages. During the last ten days, the death-rate had been as many as one hundred daily. Barely thirty English residents had as yet fallen victims to the disease. Cooler weather had set in, and it was hoped that the ravages of the disease would decline.

THE CAUSES OF ACCIDENTAL POISONING.

ON Saturday night, three girls, inmates of the Manchester Workhouse at Crumpsall, were killed by having carbolic acid administered to them in mistake for cough-mixture. A nurse who took some of the supposed medicine lies in a very precarious condition. The evidence given at the inquest on the three girls shows that the person administering the carbolic acid was the assistant schoolmistress. The carbolic acid bottle was kept in the same cupboard with the medicine bottles, and was of the same shape and size as these; and the evidence made it clear that the fatal blunder arose from the identity of the bottles in capacity, and from the culpable omission, through a false sense of security, to read the label. This raises once more the question of the propriety of sending out poisonous substances and fluids in packages and bottles not distinguished from those for harmless medicines and innocuous substances. A great number of deaths have occurred from accidents of this kind with Burnett's fluid, carbolic acid, and other solutions invaluable as antiseptics—but for external use only. The use of a partially fluted bottle would give warning to the unwary, and afford a practical, though not completely efficient, safeguard against these lamentably frequent accidents.

THE NEW ST. THOMAS'S HOSPITAL.

OUR advertising columns invite candidates for the appointments of a Physician, an Assistant-Physician, a Surgeon, and two Assistant-Surgeons, to St. Thomas's Hospital. We are assured that the Governors are animated by the sole desire to elect the men best fitted by ability and experience to add to the usefulness and reputation of the Hospital and School. Of the sincerity of this feeling, and of their freedom from local or other bias, they have given proof in the unanimity with which they elected Mr. Liebreich Ophthalmic Surgeon. No man, therefore, need be deterred from coming forward by the fear that the path is in any way obstructed by existing claims. The Governors have even passed a kind of self-denying ordinance, by devolving the choice and recommendation of candidates upon the Grand Committee. This step removes the main objection to entering on a public candidature usually felt by men of established position and reputation; namely, the annoyance of a canvass, with its attendant danger of their actual interests being compromised by defeat. The long and able services of Mr. Croft, the Senior Assistant-Surgeon, will, no doubt, be recognised as a superior title to promotion to the Surgeoncy. But with this single exception, the field is open to all comers.

MR. PAGET.

ST. BARTHOLOMEW'S HOSPITAL has, we learn, sustained a great loss in the resignation by Mr. Paget of his active duties as Surgeon to the Hospital. Mr. Paget will of course receive the appointment of Consulting Surgeon to the Institution which he has served long and faithfully, and on which he has conferred lustre.

THE CASES OF TRICHINIASIS AT WORKINGTON.

DR. DICKINSON of Workington forwards us this week a brief note of the cases of trichiniasis, three in number, which he has observed in a farmer's family who fed upon home-fed pork. These cases are of special interest, as being the first noted in this country during life; and Dr. Cobbold, who announced them in our columns, ascertained the presence in the pork of swarms of trichinæ, every grain of the meat containing upwards of two hundred—thus affording the collateral evidence desirable to demonstrate the accuracy of Dr. Dickinson's very intelligent diagnosis. The symptoms closely correspond with those observed in the epidemics in Germany—profuse perspiration, severe pains in the limbs, attended with fever and prostration. The animal was to all appearances well fed and healthy. In the case of the man-servant, the symptoms are still of a serious character; and this may well be so. Dr. Cobbold has calculated, from the specimen sent to him for examination, that, if he ate an ounce of the ham, he is probably the host of forty millions of larval trichinæ, inasmuch as he would have swallowed forty thousand trichinæ, who would, collectively, probably yield a handsome progeny of that number.

OMNE IGNOTUM PRO MAGNIFICO.

ONE of our Manchester correspondents writes: "The Committee of the Manchester Medico-Ethical Society has shot its bolt, and, in the correspondence between its secretaries and yourself, which appears in last week's *Lancet*, tells the world how that bolt has sped. To the general body of the profession in Manchester, it is very droll to note how terrible a noise proceeds from so little a body; truly, the roar is the roar of the Lion, but the face, after all, is the face of Bottom the Weaver. You, sir, asked for the names of those members of the committee of this Society, who so solemnly recorded their disapprobation of the course taken by the Committee of the British Medical Association in the matter of medical reform, and at the same time, in the name of their Society, noted their approval of the Bill framed by the anonymous gentlemen in the back parlour in Bedford Street. Instructed by Tacitus in the principle, *omne ignotum pro magnifico*, they withheld their names, and, with some consistency, desired to afford an anonymous support to the anonymous offspring of the veiled reformers of the Strand. It proved, we hear, somewhat annoying to these latter gentlemen when one of your contemporaries disclosed their names, as at once the gentlemen who framed the bill; the gentlemen who approved it; the gentlemen who declared that the profession approved it, and that it was the 'only statesmanlike measure'; the gentlemen who denounced the elected Committee and Council of the British Medical Association as a self-appointed body; the gentlemen who went as a deputation of the profession to Mr. Forster to announce its approval; and, finally—when your contemporary, the *Medical Times and Gazette*, declared that it found the joke irresistible, and published their names—as none other than the seven gentlemen who, it appears, are the *Lancet*, and of whose scientific, personal, and public acts, the *Lancet* constantly gives us much information, and of whose individual acts and opinions it rarely fails weekly to express its own and the profession's approval and admiration. If, however, these enterprising gentlemen have somewhat overplayed their part of 'the profession'—just as the four soldiers who represent the standing army on the boards of a theatre are at last recognised in spite of surprising activity and incessant reappearances in various guises at all parts of the route—our Manchester Committee are still less likely to finally succeed in having their verdict registered as any other than of a few not very influential gentlemen, who, it is well known here, do not even include in their number any one of the staff of the

leading medical institutions of the district. I observe that the *Medical Times and Gazette* concurs in what I believe to be the general opinion—that you were perfectly right in requiring that the names of those who censured should be attached to their censure. The *Lancet* conclusion—that your proposition to these gentlemen to call a meeting of their Branch of the Association, which you would report, implies a desire to suppress the opinion of members of the Association; and that the refusal of these gentlemen to do so constitutes them representatives of the opinion of the Association—involves a kind of logic with which that estimable print has familiarised us in its dealings with the Association, but which can deceive no one, not even itself."

DEATH FROM CHLOROFORM.

WE are indebted to Dr. Sylvester, resident medical officer of the Swansea Hospital, for the following notes of a case to which we referred last week, in which death occurred under the influence of chloroform, in a case of fracture and dislocation of the ankle-joint.—W. B., aged 47, a fine muscular man, was admitted to hospital on March 13th with Pott's fracture of the right leg, the tibia likewise being split up in the direction of its long axis; and with dislocation of the foot outwards. The injury was received two days before his admission, in consequence of his foot slipping off the kerb-stone. Complete reduction of the dislocation was impossible, owing to the tibia being forced wide asunder by the tarsal bones, which were wedged into the fractured ends. The integuments around the inner ankle were very much damaged by the pressure of the projecting bones; so that, notwithstanding every attention, suppurative and ulcerative action was set up in and around the joint. On the 24th, hæmorrhage from a branch of the posterior tibial occurred. The perchloride of iron controlled it for a time; but, owing to the progressive sloughing of the soft parts, it recurred several times during a period of four days. At the end of that time, the parts began to assume a better appearance; healthy granulations were formed, the slough ultimately separating; and a favourable result was looked for. On April 10th, however, ulcerative action was again set up. Hæmorrhage returned; and, as the patient by this time was in a very weak condition, it was considered, at a consultation of the medical and surgical staff, that immediate amputation of the leg afforded the best, if not the only, chance of preserving his life. The resident medical officer administered the chloroform on lint, care being taken to allow an ample admixture of air. After inhaling the anæsthetic for about ten minutes, consuming about three drachms of chloroform, the patient became very excited, and much spasm and rigidity of the muscles supervened. This was soon followed by a rise in the frequency and diminution of force of the pulse, which, already feeble, now ceased at the wrist; the respiration likewise became suspended; but the heart still continued to beat. The administration of chloroform was, of course, immediately withheld, artificial respiration practised, and galvanic shocks passed from the nape of the neck to the diaphragm. In a short time, consciousness was partially restored; respiration was feebly re-established, the patient making some deep sighs; the pulse returned at the wrist; and he was able to swallow three or four teaspoonfuls of brandy, and to reply to a question addressed to him. Had not the patient been previously exhausted by the injury and hæmorrhage, his recovery might have been hopefully looked for; but, in consequence of the great depression of vital power, these favourable symptoms soon subsided, respiration was prolonged but for a brief interval, and he finally sank.

LORD O'HAGAN'S LUNACY REGULATION BILL.

IN Ireland, the work of the Medical Superintendents of Asylums for the Insane is more onerous than it is even in this country; for, while they are here only responsible usually for the medical treatment and moral supervision of their patients, in Ireland they have the entire conduct of the institutions, and are responsible for the whole. No one will contend that they are too well paid in England, or have too early or satisfactory terms of retirement. But in Ireland they are much worse off. The general average of income from salary is lower; and, what is especially felt, whereas in England they are entitled to a superannuation allowance of three-fourths of the salary after fifteen years' actual service, the Irish

Medical Superintendent is required to serve forty years before he can put in such a claim. The term entitling to superannuation in this country was reduced from twenty to fifteen years, in consequence of the evidence given before a Parliamentary Committee. Lord Shaftesbury testified that "the wear and tear upon the nervous system of attendants and medical superintendents are such, that it may be considered almost a standing miracle that so many of them can bear it for the whole fifteen years before they arrive at the period of being superannuated. Imagine what it must be to be perpetually in the presence of lunacy, some of its subjects being in the most exalted state, and some most despondent, but never hardly to pass a night in which they are not disturbed, never to have any relaxation—to be perpetually in the presence of insane patients has the most lowering and most miserable effect upon the nervous system." Lord O'Hagan's Lunacy Regulation Bill affords a just opportunity for rectifying this anomaly. The Parliamentary Bills Committee of the British Medical Association will exert their influence to have this question, as well as the payment of Poor-law medical officers for certificates of dangerous lunatics, brought forcibly under the notice of the House; and we trust that the Irish medical members, of whom there are three in the House of Commons, will support the claim.

THE GENERAL MEDICAL COUNCIL.

THE Executive Committee of the Medical Council meets as we are going to press, to consider the case of some alleged improprieties in the signature of medical certificates of death.—The General Medical Council will not, we believe, probably be summoned till July next.—There is a vacancy at the disposal of the Privy Council, by the resignation by Dr. Rumsey of his seat in the Medical Council.

DEATH UNDER THE INFLUENCE OF METHYLENE.

MR. BEDFORD held an inquest some days ago at Charing Cross Hospital on the body of a labourer, aged 41, who died while under the influence of methylene, after undergoing an operation. Mr. Edwin Canton, surgeon to the hospital, stated he had advised the deceased to have one of his fingers removed on account of a severe injury: to this he consented, and said he should wish to be under the influence of chloroform while the operation was being performed. On Tuesday last the operation took place, the deceased having previously inhaled one and a half drachms of methylene, which was used as a substitute for chloroform. The methylene was administered in the presence of witness by the regular administrator of the hospital, a gentleman of large experience. The quantity administered was not more than half that usually given. The deceased having become insensible, Mr. Canton removed the finger, the operation not lasting more than one minute. It was then found that the deceased's head had fallen upon one side, his eyes were upturned, and breathing and pulsation had ceased. Every means was at once adopted to restore animation, but without effect. He had since made a *post mortem* examination, and found the brain and every other organ perfectly healthy. There was nothing whatever to account for death. There was no trace of any action of the methylene on either the heart or brain. The only way in which he could account for the death was, that, the man being in a state of great nervous excitement at having to undergo the operation, the methylene had acted upon the nervous system, producing instant death. He had known death to result under an operation from the nervous excitement of the patient without chloroform having been inhaled. There was no doubt that the death of the deceased had been produced by the methylene he had inhaled. The cases of death while under the influence of methylene were extremely rare. In all probability the deceased would have survived the operation had it been performed without his inhaling the methylene, which was administered at his own request. He never allowed methylene to be administered to a patient about to undergo an operation unless with the patient's full consent after due deliberation. The jury returned the following verdict: "That the deceased died from the effects of methylene properly administered during an operation."

A LUNATIC SCALDED TO DEATH.

WILLIAM COOPER, an attendant at the Surrey County Lunatic Asylum at Wandsworth, was charged at the Wandsworth Police Court with causing the death of Robert A. Mulley, aged 65, a patient, by scalding him in a bath. Mr. Ward, the junior medical officer of the establishment, said he was called to the deceased, and found him suffering from extensive scalds on the back, left arm, and ankles. He attributed death to bronchitis consequent upon the scalds. Dr. Biggs, the resident medical officer and superintendent, said he asked the prisoner how he could be guilty of such culpable negligence as turning almost boiling water upon the deceased, and the prisoner replied that he did so thoughtlessly and accidentally. The prisoner had also departed from the usage of the establishment by putting the back of the deceased to the inlet of water. Mr. Ingham committed the prisoner for trial on manslaughter.

DR. PARKES ON HOSPITALS.

THE feature of special interest in the dinner in aid of the funds of University College Hospital this week was the presidency of Dr. Parkes. Moved by the *genius loci*, and despite the manifestoes of Berners Street, Dr. Parkes declared that "a public hospital was, after all, a charity which united the greatest amount of good with the minimum amount of evil." This was no doubt a suitable sentiment for the occasion, and the eternal verities are apt to be thought troublesome after dinner; but, on the rare occasions on which a medical man is asked to officiate as chairman at a hospital dinner, he might usefully propagate unwholesome facts, instead of pleasant fallacies. Of course there was great virtue in the qualification "after all"; but it was a modest virtue, and so concealed as to be very likely to be overlooked in the condensed reports which are published. Is the evil of out-patient departments really reduced to a minimum at present? We are in the habit of taking Dr. Parkes's propositions seriously and as of great worth. We would ask him whether he meant what he is reported as having said.

SCOTLAND.

THE Simpson Memorial Fund now amounts to more than five thousand pounds.

THE annual supper of the North British Branch of the Pharmaceutical Society of Great Britain was held on Tuesday evening in the Café Royal Hotel, Edinburgh. There was a large attendance.

THE SALE OF THE EDINBURGH INFIRMARY BUILDINGS.

THE interdicts against the sale of the Royal Infirmary buildings to the University came up on Wednesday, April 19th, in the Bill Chamber before Lord Mackenzie. Mr. John M'Laren, advocate, on behalf of the interdictors craved diligence for the recovery of the minutes of the Infirmary managers, and of the correspondence in regard to the sale between parties up to the date of the action. The motion being unopposed, the Lord Ordinary on the Bills granted the diligence.

HEALTH OF EDINBURGH.

WE learn from our Edinburgh correspondent that very few cases of small-pox have as yet occurred in Edinburgh; those in the Infirmary have been chiefly imported cases in foreign sailors who had not been previously vaccinated. One of the nurses has succumbed very rapidly to a severe attack. She had been in delicate health. A good many cases of typhus have recently been admitted, and we regret that Dr. Dixon, the energetic and devoted house-physician, has also been attacked. He is, however, now recovering. The special Fever Hospital which was opened for the reception of relapsing fever is now used for typhus cases, and is an useful safety-valve for the Infirmary beds. Arrangements of the fullest description have been made for the reception of small-pox cases should any such occur; but the extreme care with which the Vaccination Act has been worked in Edinburgh, leads us to hope that the cases of this disease will be few and far between.

IRELAND.

DR. A. W. FOOT has been elected Physician to the Meath Hospital, in the room of Dr. Hudson, who has resigned after having held office ten years.

THE opponents to the Contagious Diseases Act have secured the adhesion of the President and Vice-President of the College of Surgeons (Drs. Walsh and Wharton) and Professor Benson.

THE IRISH LUNACY BILL.

THE determined opposition of Sir D. Corrigan to the clause compelling medical [men to certify without fee has induced the Lord Chancellor to withdraw it.

HEALTH OF DUBLIN.

THE death-rate of the past month has been lower than ever before recorded. Eight cases of small-pox were returned to the Health Committee, but in none did any second case occur in the same dwelling.

ROYAL COLLEGE OF SURGEONS OF IRELAND.

THE election of seven Ordinary Examiners—three in Midwifery, and three in Literature—is fixed for May the 2nd. On June 5th, the annual election of President, Vice-President, and Council will take place.

KING AND QUEEN'S COLLEGE OF PHYSICIANS.

ON the evening of Wednesday, April 19th, Dr. Banks, President of the King and Queen's College of Physicians, entertained the Fellows of the College and a numerous party of visitors at dinner in the College Hall, Kildare Street. Among those present were: Dr. Acland, F.R.S., Regius Professor of Physic in the University of Oxford; Dr. Laycock, Professor of Medicine in the University of Edinburgh; Dr. Heaton of Leeds; and the Right Rev. Chas. Perceval Graves, D.D., Lord Bishop of Limerick.

PRIZES OF THE DUBLIN PATHOLOGICAL SOCIETY.

AT the general meeting of the session of the Pathological Society of Dublin, on the 22nd instant, the President announced that the Society's gold medal had been awarded to Mr. William Josias Smyly, for his essay on the Diagnosis and Pathology of Injuries of the Vertebral Column and Spinal Marrow, and a silver medal to Mr. William Freke Hingston, for his essay on the same subject. Mr. Smyly is a son of the late distinguished surgeon, Mr. Josias Smyly.

VACCINATION AND SMALL-POX.

SMALL-POX AT SOUTHAMPTON.

THERE are now, we are informed from a trustworthy source, above seven hundred cases of small-pox under treatment in the town of Southampton. The proportion of deaths is stated to be on the increase. The officer of health some time ago proposed that wooden huts should be erected on some open land near the town for the reception of variolous cases. The proposition was, however, rejected; and two houses were prepared for the reception of small-pox patients near the County Hospital, which is in one of the most crowded parts of the town. No doubt these houses have been accumulating and intensifying the poison. There are open spaces sufficiently near to the town for huts to be erected without any objections arising as regards distance or removal of patients; and steps are at last being taken towards the adoption of the plan. To a certain extent, this is another illustration of shutting the stable-door after the steed has been stolen. The majority of the cases have hitherto occurred among the necessitous classes living in crowded streets and alleys in the neighbourhood of the docks; but the disease is now disseminated among the well-to-do tradesmen and others in the more open districts of the town. There seems to be no doubt that the disease was introduced on the occasion of the exodus of French refugees from Havre, when that town was threatened by the Prussian troops. Large numbers of French people at that time poured into Southampton owing to the ready means of communication between the two towns;

and, from the want of opportunity of making preparations for their reception, much overcrowding in certain localities and neglect of hygienic arrangements were the result. It will now require great energy and determination, without further loss of time, to stamp out the disease.

VARIOLOID SYPHILIS.

MR. GASKOIN writes to us as follows.

In some of the societies, it has been mentioned of late that small-pox is more nearly counterfeited by syphilis than by any other complaint. This is not far from the truth. One of the syphilides I have always known as the varioloid, though the term so applied is not current, I believe, in the profession. The resemblance to discrete variola, before the maturative stage, is indisputable. During the present epidemic of small-pox, in my *clinique* at the British Hospital of Diseases of the Skin, I have been twice subject during the past month to a fleeting deception. The first time, this was with a case of sebaceous acne, at a glance much resembling small-pox. The flat confluent pustules, with semifluid contents of pale yellow colour, gave very much the idea I have mentioned: there was even some central depression. The consciousness of this resemblance was very annoying to the patient, and he did not fail to hear of it from his acquaintance. The deep pits left by this acne, from the cutis being destroyed, are further points of resemblance. It is known that there are cases of small-pox where the patients do not keep their bed a single day, the febrile distress being slight, or at least not overpowering; but these are mostly among the lower class—costermongers, etc. Any stories we may hear of persons going about with small-pox, if of a good condition, must be referred, I think, to this acne, which, after all, is not common, but one of the rarer forms. The other case to which I shall refer is of a different character: I can only group it under ecthyma, with cachexia. In this instance the woman's arm, which was the part chiefly affected, wore the appearance of vaccination about the twelfth day, or somewhat earlier. There were numerous purplish and dark red scabs and clear vesicle, with central depression and circlet all but complete, consisting of minute cells with straw-coloured or brownish fluid of the same transparent character as is generally found in vaccinia. There was here no history of local poisoning or contact with vaccinal fluid. Though far removed from a typical case, the resemblance was sufficiently striking. Much surprise is now expressed at revaccination being so generally successful. This would be the time, as it seems to me, to repeat the experiments of William Boeck on children or other subjects of primary vaccination. Operating on them after a lapse of a month, three months, or a year, he found that with something like frequency the revaccination succeeded. I do not give these experiments because I think they have need to be repeated, but I could wish they were better known.

THE EPIDEMIC OF SMALL-POX.

DR. BALLARD, Medical Officer of Islington, whose monthly reports have throughout thrown great light upon the causes of the spread of the present epidemic, observes that 198 new cases have been treated in his parish during the last five weeks. Of these cases, not more than half, viz., ninety-eight, were sent to the small-pox hospitals, the remaining one hundred being treated at home. This arose in some instances from the unwillingness of the patients to be removed; in other instances from the lack of sufficient hospital accommodation. Notwithstanding the strenuous and praiseworthy efforts of the Asylums Board to perform the function allotted to them, the accommodation they have provided has, he observes, still been below the necessities of this epidemic, unparalleled for extent and severity in the memory of any of the existing race of medical practitioners. The reason seems to be that there is just above the pauper class, for whom the Board was bound to provide, a class of persons, artisans, shopmen, clerks, laundresses, petty tradesmen, and such like, who, although never in the receipt of parochial relief, have been driven to seek refuge in the hospitals of the Asylums Board, when attacked with small-pox. To have refused such persons admission would have been to compromise one of the grand objects with which these hospitals were founded, namely the isolation, not otherwise procurable, of cases of contagious disease. Such persons when, as is commonly the case, occupying with their families a single room of a house let in tenements, or only a portion of their own house, while the remainder is let to other families, are as likely to disseminate the contagion to those about them as a pauper would be under similar circumstances. They have no convenience for isolating themselves, and cannot afford the payment of three guineas demanded at the Highgate Hospital, even supposing there were room to receive them there. The occasion, Dr. Ballard points out, to be one on which local supplemental action would be appropriate. Since March

13th, arrangements made by the Guardians for receiving Islington patients at the old workhouse have been at an end, in consequence of the occupation of the building by the Asylum Board for conversion into a convalescent hospital; and no new local hospital has been established, or, so far as he knows, contemplated. Yet one is needed, and, if the experience of former epidemics is to be trusted, will be needed for some weeks and perhaps some months to come, if only to receive the surplus cases, willing and desirous of removal from home, which the Asylum Board's hospitals cannot accommodate. There ought, at any rate, to be such hospital accommodation available as would permit of his putting into operation the 26th section of the Sanitary Act, 1866.

He mentions another matter which is subject for regret; namely, the greatly diminished number of persons now seeking revaccination; a fact which is obvious to all medical men engaged in private practice, and demonstrable at every one of our public stations. This is not because all who require it have been revaccinated—very far from this—it is simply because the first panic has subsided, and people have become accustomed to the presence in their midst of an enemy who has hitherto spared them, and who, they hope, will continue to overlook their unprotected condition. As fear subsides, reason ought to take its place. But perhaps this is too much to expect.

HOSPITAL REFORM.

A MEETING on the subject of Hospital Reform was held in the Rooms of the Royal Medical and Chirurgical Society, on April 20th, Sir Wm. Fergusson, Bart., in the chair. A report was presented by the Committee appointed to consider the subject.—The CHAIRMAN said that this meeting was of interest both to the profession and to the public. At a former meeting a committee was appointed, which had been at work ever since, and now presented a report. From it the meeting could see the amount of work done. It was important that some scheme should be laid before the world, and this was now done. It would be impossible for medical men to do the work they now did without the aid of the charitable public, and it was impossible to imbue them with the same views as the profession held. It would, therefore, be necessary to proceed cautiously if we desired to dispense their charity better. Certainly, if this could be done, it would be for the good of all. The medical profession had now to step out of its own circle, in which was a certain degree of unanimity, to address the outer world, in which they might find there was nothing of the kind.—Dr. HEYWOOD SMITH having read the report of the Committee, it was moved by Dr. MEADOWS, and seconded by Dr. HAWKSLEY,—“That it be received and adopted.”—This was carried.

Dr. HAWKSLEY moved the first resolution,—“That an improved administration of Poor-law medical relief, in accordance with the Metropolitan Poor Act of 1867, is essential to the reform of the out-patient administration of the metropolis.” He thought it well that the profession should come forward at the present moment, when pauperism was exciting much attention. Human nature had, he thought, a tendency to progress backwards, not upwards. Charity, as ordinarily dispensed, helped this, and that they must try to mend. Our medical institutions failed on account of the numbers seeking relief, and in them the wrong class were best attended to. He instanced certain cases in point, and showed how the particulars of Mr. Gathorne Hardy's Bill had not been fully carried out.—Dr. JOSEPH ROGERS seconded the motion. He had looked into the statistics of the numbers of persons receiving out-door medical relief in London, and had compared the attendance at the hospitals and dispensaries with the number of persons under the care of the district medical officers. The total for a year furnished by the reports of hospitals and dispensaries exceeded a million; while the district medical officers attended in 1866 206,590 cases. In the Strand Union, with a population of 42,898, for example, the district medical officers had 1833 cases; while at the Gerrard Street Dispensary there were 10,632 cases; at King's College Hospital, 31,742; and at the Stanhope Street Dispensary 4,000; besides which 800 persons were visited at their own homes. In the city of London, with a population of 113,239, the district medical officers had 7,828 cases in the year; while the out-patient attendance at the hospitals and dispensaries amounted to 278,914. Several other similar instances were given. He was satisfied that no material alteration could be made in Poor-law Medical Relief so long as physicians and surgeons continued to afford gratuitous medical aid to such multitudes of persons as now crowded the out-

patient departments of hospitals and free dispensaries. In Dublin, dispensary relief being efficient, no such abuse of the out-patient departments existed. Again, the profession was injured by the present system, to the extent, he calculated, of £51,000 *per annum* in London alone. He believed that, if this state of affairs were amended, we should not have such frequent piteous appeals for assistance from indigent members of the profession. He sincerely trusted that the *élite* of the profession would lend their aid to put a stop to the present demoralising and pernicious system.—The motion was carried.

Mr. ERNEST HART moved the second resolution,—“That, in furtherance of the above resolution, and in order to limit the pauperising tendency of the present system of gratuitous relief at hospitals and dispensaries, all free dispensaries should be under the control of the Poor-law authorities, so that a proper system of inquiry may be instituted previous to the administration of gratuitous medical relief.” He said that State aid should not be interfered with by charity which asks no questions. When Mr. Hardy's measure was passed, Government was inclined to take a liberal view of what ought to be done in the way of relief. Then were sown the seeds of future good. Bodies called into power then had erected those asylums which had enabled them to face the present epidemic and that of relapsing fever. The question was, how best to relieve the public funds of the crowd of out-patients now to be seen at our hospitals. To this end, he thought all free dispensaries should be abolished.—Mr. CURGENVEN seconded the motion. He thought that the present Government did not seem inclined to move in the matter; it should, therefore, be urged upon them.—Mr. LORD thought that all free dispensaries should be done away with. It was the aiming at distinction on the part of medical men themselves which was at the root of the evil. The profession injured itself.—Mr. JABEZ HOGG said they were asking a body in which, on their own showing, they had little confidence—viz., the Poor-law Board—to co-operate with them. Would that be a good thing? He was quite sure that governors would not give up existing privileges.—Dr. ROSS agreed with the sentiment that all free dispensaries should be abolished, but disagreed with the mode in which the motion was framed. He objected to the extension of the power of the Poor-law Board. It would be far better to try to get a Government Board of Medical Relief at once.—Mr. HOLMES said they must either accept the motion as it stood or reject it. If the Poor-law Board were not trustworthy, they must try to make it better.—Dr. PERCY LESLIE also objected to the combination of the Poor-law and voluntary systems. They could not give complete power to the former.—Ultimately the motion was carried.

Dr. FORD ANDERSON moved the third resolution,—“That, in order to encourage a feeling of self-respect among the working-classes, and that they may secure for themselves during health the necessary medical attendance in sickness, it is desirable that the system of provident dispensaries should be largely extended, both by conversion of the present free dispensaries, and by the foundation of others.” He said that in London there were only ten provident as compared with sixty free dispensaries. Meantime, the free monopolised both patients and subscriptions. The provident system encouraged forethought and independence; it tended to raise wages, and the machinery employed was suited to prevent imposition. Further, the practitioners in the neighbourhood did not suffer, and there was no delay in obtaining relief. The medical men, also, were paid for their work.—Mr. SPENCER WELLS seconded. If the profession generally supported the measure, it would do much to overcome the evils complained of. He could hardly believe that there were people who could not pay a penny a week, they not being paupers. Giving a penny when they were ill was quite a different thing from giving it when they were well.—Dr. NELSON HARDY said that the whole matter must be considered, and not parts of it merely. The Committee proposed to continue the greatest abuses of all, the out-patient departments of hospitals, which they had been appointed to consider. Instead of reforming them, they attacked dispensaries. Were these allowed to remain, provident dispensaries would be at a disadvantage, for no subscriptions would come to them. The experience in Marylebone and in Leicester confirmed this. The expenses would be increasing with gradually decreasing subscriptions. The hospitals were the chief sinners.—The resolution was carried.

Mr. HOLMES moved the fourth resolution,—“That, for the reasons given in the preceding resolution, and in order to improve the clinical teaching of the out-patient department of the general and special Hospitals, it is very desirable that the present unrestricted system of gratuitous relief at those institutions be curtailed, partly by the selection of cases possessing special clinical interest, and partly by the exclusion of those who, on social grounds, are not entitled to gratuitous medical advice.” He said that the out-patient department was to be reformed merely by carefully attending to those seen. He had often found patients ignorant of the name of the medical man who was supposed to

see them. Nevertheless, it was not an institution to be swept away; it was too valuable for teaching.—Dr. ANSTIE seconded the motion. He said most of the cases seen were useless for every purpose. There was no time for careful diagnosis; and yet, notwithstanding, the work was fearfully exhausting.—The resolution was carried.

Dr. STALLARD moved the fifth resolution—"That the practice of receiving payments for medicine or medical advice from the out-patients of Hospitals is undesirable." He was much opposed to small payments at Hospitals; it was cheating the general practitioner.

The motion having been seconded, Dr. LESLIE moved, as an amendment, "That out-patient departments ought to be placed on the same footing as provident dispensaries."—Dr. NELSON HARDY seconded this, but it was ultimately withdrawn.—After some remarks from Dr. Morell Mackenzie and Dr. Ross, the motion was carried.

Dr. POLLOCK moved the sixth resolution—"That the governors of Hospitals ought in all cases to provide some honorarium for the staff of the out-patient department." Every man, he said, was worthy of his hire. Paid labour was always better than unpaid, and the time at which patients were seen necessitated the giving up of paying work. He did not propose that an equivalent should be given—that would be hardly possible—merely an honorarium.—Mr. TEEVAN seconded. This was no experiment; it was regularly done on the Continent. It would be beneficial to the hospital, as it would keep many good men about it; besides, it would compel men to be more punctual.—The motion was carried.

Dr. BUZZARD proposed the last resolution—"That a Committee be appointed to memorialise the President of the Poor-law Board, the governors of the various metropolitan medical charities, and the Society for Organising Charitable Relief, to assist in carrying the foregoing resolutions into effect, and to take such other steps as they may think requisite." This having been seconded, the following were nominated: The Chairman, Dr. Burrows, Mr. Bowman, Dr. Gray, Dr. Ford Anderson, Dr. Stallard, Dr. Meadows, Dr. Joseph Rogers, Mr. J. Hutchinson, Dr. Pollock, Dr. Clapton, Mr. Curgenvin, Mr. Holmes, Dr. Heywood Smith, Dr. A. P. Stewart, Mr. Ernest Hart, Dr. Hawksley, Mr. Gascoyen, Mr. Spencer Wells, Dr. Buzzard, and Mr. Fairlie Clarke.

After a vote of thanks to the chairman, the meeting adjourned.

ROYAL COLLEGE OF SURGEONS.

THE following is an abstract of the proceedings of the last meeting of the Council of the Royal College of Surgeons.

The recommendation of the Museum Committee for the construction of cases in the front room of the first floor of the house adjoining the Eastern Museum, for the display of Surgical Instruments and Apparatus, was adopted by the Council; as was also the appointment of Mr. J. B. Perrin as temporary assistant in the Museum, in the vacancy occasioned by the resignation of Mr. Moseley.

On the recommendation of the Museum Committee, a gratuity was unanimously awarded to Mr. James Flower, articulator to the College, as a mark of the appreciation by the Council of the value of the numerous improvements introduced by him in the method of preparing and mounting skeletons, whereby the facilities for the study of osteology have been greatly increased.

On the recommendation of the Jacksonian Committee, the following were adopted as the subjects of the next triennial prize and Jacksonian Prize for 1872; viz., for the former, "The Structure and Functions of the Medulla Oblongata, including the Connections of the Central Nerve-roots"; and for the latter, "The Diseases of the Nose, including the Sinuses connected with it, and their Treatment." The respective dissertations may be illustrated by preparations and drawings.

Mr. S. J. A. Salter was elected an Examiner in Dental Surgery in succession to Mr. Harrison.

The conviction under the Medical Act at the Marlborough Street Police Court, of the person calling himself "Du Brange", for having falsely described himself as a member of the College, was reported to the Council.

A letter was read from the Rev. Dr. Ridding of Winchester College, calling the attention of the Council to a resolution of the Committee of the Board of Schoolmasters in reference to the proposed establishment of "leaving examinations" for pupils at public schools, and asking whether the Council would accept such examination in lieu of a special preliminary test-examination. It was resolved: "That the Rev. Dr. Ridding be informed that, provided the 'leaving examinations' referred to comprised all the subjects deemed necessary by the Council, and provided the examinations were conducted by a distinct

board of examiners, and not by the teachers of the pupils, the Council was of opinion that the proposed examination might be considered as satisfactory tests of the general education of students intended for the medical profession."

Mr. William Podmore Jones of Harley Street having satisfied the Council that he had legally changed his name to William Henry Haden, the necessary alteration was directed to be made in the College Calendar.

SPECIAL CORRESPONDENCE.

ABERDEEN.

[FROM OUR OWN CORRESPONDENT.]

Capping-day at the University.

THE ceremony of capping the medical graduates took place on Thursday, April 20th, in the hall of Marischal College. In addition to the Professors and Examiners, a large number of the general public, chiefly ladies, were present on the occasion, together with some students who have not left town during the recess. In the absence of the Rev. Principal Campbell, Dr. Macrobin, Dean of the Faculty of Medicine, presided. A Latin prayer of considerable length, which was read from a manuscript by a professor of the theological faculty, opened the proceedings; thereafter the graduates-elect swore the oath, raising their right hand, and saying the words after the Dean. The latter part of this oath is a promise to cherish good-will towards Alma Mater Academia; but the oath is mainly designed as a profession of the Christian religion, "Quousque in Sancto Dei Verbo palam proponitur." It is noteworthy that there were among the graduates two much esteemed gentlemen, Hindoos of Calcutta, who were understood, if the curiosity might be forgiven, not to have departed from their hereditary creed; and though those gentlemen, with the "wise passiveness" characteristic of their race, took no overt exception to the ceremony, yet it may easily be conceived that the exacting of an uniform religious belief on the occasion of bestowing licences to practise medicine must sooner or later come to be inconvenient.

Twenty-seven students received the degrees of M.B. and C.M., and two (under the old regulations) the degree of M.D. Of these, six received both degrees with "highest academical honours"; four, their degree in medicine with "academical honours"; and three received the same grade of honours with their C.M. degree.

There was, unfortunately, on the present occasion, a gloomy background to the professor's oration. Two of the last year's graduates have already met an untimely death—both of them, strangely enough, dying of small-pox abroad; and one student who, had he survived, would no doubt have received his degree on Thursday along with his comrades, succumbed two days before to an attack of meningitis.

The theses presented by three of the graduates were adjudged worthy of honourable mention. It was remarked that those three theses were sent in by students from England, and were understood to be the results of observations made elsewhere than in Aberdeen. This is the first time that the medical faculty have publicly awarded honours for a commendable graduation-thesis; and, though no dissertations of local origin have on this occasion proved worthy of notice, yet it cannot be doubted that, with the prospect of their original work being acknowledged, and with a good example from their seniors, the indigenous students will assume a place in this department of study worthy of their powers.

Two of the unused class-rooms in Marischal College have recently been altered so as to be suitable for laboratories. At the door of one of these may be seen an elegant and truly academical cage, in which feeds a solitary rabbit. Perhaps one may suppose that this is but the beginning of greater things, and that ere long we shall have a full supply of these rodents, as well as of white mice, frogs, and other useful, but in Aberdeen neglected, members of the animal kingdom. There is no saying in how short a time the new teaching of the present in the shape of practical physiology, microscopic morbid anatomy, etc., may break in upon us in full force.

The Medical School during the past session has been unusually prosperous in point of numbers of students. About one hundred and ninety matriculated in the medical faculty, and no fewer than one hundred and forty attended the lectures of Professor Struthers on Anatomy. The number of students, though considerably larger than in former years, is not too large to make impossible that *esprit de corps* which one finds in the smaller universities and colleges; and one hears of much merriment and good-fellowship that have characterised the past session.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A SPECIAL meeting of the Committee of Council will be held at the Freemasons' Tavern, Great Queen Street, Lincoln's Inn Fields, London, on Wednesday, the 3rd day of May, 1871, at 10 o'clock A.M. *precisely*.

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary*.
13, Newhall Street, Birmingham, April 10th, 1871.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETINGS.

THE next meeting will be held at the Union House, Dartford, on Tuesday, May 2nd, at 4 P.M. The President of the Branch will take the Chair.

Dinner will be provided at the Bull Hotel at 6.30.
Cases, papers, etc., on Puerperal Mania, Tumours of the Abdomen, and Life Assurance.

FREDERICK JAMES BROWN, M.D., *Honorary Secretary*.
Rochester, April 20th, 1871.

CUMBERLAND AND WESTMORLAND BRANCH.

THE spring meeting of the above Branch will be held at Kendal, on Wednesday, May 3rd, 1871; THOMAS F. I'ANSON, M.D., President, in the Chair.

Gentlemen intending to be present, or to read papers, are requested to communicate with the Secretary without delay.

HENRY BARNES, M.D., *Honorary Secretary*.
Carlisle, March 29th, 1871.

CAMBRIDGE AND HUNTINGDONSHIRE BRANCH.

A MEETING of the above Branch will be held at the County Hospital, Huntingdon, on Wednesday, May 3rd, at 2 P.M.; MICHAEL FOSTER, Esq., in the Chair.

Dinner at the George Hotel at 5 P.M. Tickets 13s. each.
Gentlemen intending to read papers, or to be present at the dinner, are requested to communicate with the Honorary Secretary.

J. B. BRADBURY, M.D., *Honorary Secretary*.
Corpus Buildings, Cambridge, April 1st, 1871.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT MEDICAL MEETINGS.

THE May meeting of members of the above District will be held on Wednesday, May 10th, at 3 P.M., at the Maiden's Head Hotel, Uckfield: HENRY HOLMAN, Esq. (East Hothly), in the Chair.

Gentlemen willing to contribute papers, etc., will greatly oblige by letting me know at their earliest convenience.

Dinner will be provided at 5.15 precisely. Charge 5s., exclusive of wine.

FREDK. CHAS. MUDD, *Honorary Secretary*.
Albion Villa, Uckfield, April 19th, 1871.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETING.

THE annual meeting of the members of the above District will be held at the Fountain Hotel, Canterbury, on Thursday, May 11th, 1871, at 3 o'clock: the President of the Canterbury Book Club in the Chair.

Dinner will be provided at 5 o'clock precisely. Charge, 5s., exclusive of wine.

All members of the South-Eastern Branch are entitled to attend, and to introduce friends.

Notices have been received of the following communications to be read at the meeting. 1. Observations on Vaccination, by Mr. Reid; 2. Remarks upon a Recent Outbreak of Diphtheria, with an illustrative case, by Dr. Kersey; 3. Case of Laceration of Vagina from Fracture of Glass Injection-Syringe, by Dr. Parsons.

Gentlemen who intend to be present at the dinner are particularly requested to inform me *on or before Tuesday the 9th instant*.

CHARLES PARSONS, M.D., *Honorary Secretary*.
2, St. James's Street, Dover, April 26th, 1871.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE fifth ordinary meeting of the session was held at the Royal Hotel, College Green, Bristol, on Thursday evening, April 13th, at 7 o'clock; CHARLES BLEECK, Esq., President, in the Chair. There were fifty-three members and three visitors present.

New Members.—The following gentlemen were balloted for as members of this Branch: R. Shingleton Smith, M.D.; H. Hetling, L.R.C.P.Ed.; A. W. Fox, M.D.; Thomas Maclure, L.R.C.P.Ed.

Communications.—1. Dr. W. BUDD read a paper entitled *Some Reflections on the present Revival of the Power of Small-pox over Man*. Considerable discussion followed, in which Mr. R. M. Bernard, Dr. Davey, Mr. Collins, Mr. Davies, Mr. Dowson, and the President, took part.

2. Dr. E. L. FOX read a paper on a *Successful Case of Hydatid of the Liver*, which elicited remarks from Dr. Davey, Dr. Brittan, and Dr. Shingleton Smith.

Medical Benevolent Fund.—The PRESIDENT communicated to the meeting that the Secretary had received through Mr. W. M. Clarke a liberal donation of £10 to the Medical Benevolent Fund, from J. S. S. Lucas, Esq., of The Priory, Westbury-on-Trym. An unanimous vote of thanks was passed by the meeting, to be sent to Mr. Lucas.

REPORT OF MEETING OF COMMITTEE OF COUNCIL:

Held in Birmingham, March 30th, 1871.

PRESENT:—W. D. Husband, Esq., F.R.C.S., in the Chair; Dr. Charlton, Dr. Falconer, Mr. Baker, Dr. Chadwick, Mr. Clayton, Mr. Reginald Harrison, Mr. Heckstall Smith, Mr. Southam, Dr. Stewart, Dr. A. T. H. Waters, Dr. E. Waters, Mr. Wheelhouse, Dr. Wilkinson, Mr. Wood, and Mr. Williams, General Secretary.

The General Secretary reported that Dr. J. W. Moore, 40, Fitzwilliam Square, West, Dublin, had consented to continue his valuable services as Honorary Secretary for Ireland.

The following resolutions were agreed to.

1. "That in future neither the JOURNAL be sent to, nor subscription received from, any candidate until he be duly elected a member of the Association, either by the Committee of Council or by the Council of a Branch of the Association; and that a copy of this resolution be sent to the Branch Secretaries."

2. "That this meeting recognise the Parliamentary Committee appointed by the Metropolitan Counties Branch, and request that each Branch of the Association elect one member in addition to those elected by the Metropolitan Counties Branch."

3. "That the new Branch in South Wales be recognised, and the laws approved of."

4. "That the President of the Council be requested to communicate with Dr. Maudsley, expressing the regret of the Committee of Council at the appearance of the article referred to."

5. "That the Report of the JOURNAL Committee be approved, of which the following is an extract.

"The subject referred to them—being a complaint made by Dr. Bryan, that papers written by members of the Association were not published in the BRITISH MEDICAL JOURNAL, but were afterwards published in other journals, and also that papers were lost at the office—was not gone into, as not a single complaint was received by the Secretary."

6. "That a special meeting of the Committee of Council be held for the purpose of considering fully the general organisation of the Association; and that such meeting be held at the Freemasons' Tavern, Great Queen Street, London, on Wednesday, May 3rd, at 10 A.M."

7. "That the Treasurer's Report be received, adopted, and published in the JOURNAL."

8. "That the officers of the Association, with the officers of the several Sections, be appointed a 'Reference of Papers Committee' for the annual meeting."

The following appointments for the Sections at the next annual meeting were made.

SECTION A. MEDICINE.—*President*, Professor Acland, M.D., F.R.S., Oxford. *Vice-Presidents*—Dr. Quain, London; Inspector-General Smart, M.D., C.B., R.N., Penge, Surrey. *Secretaries*—Dr. Clay, Plymouth; Dr. Wade, Birmingham.

SECTION B. SURGERY.—*President*—Mr. May, sen., Stoke, Devonport. *Vice-Presidents*—Mr. De la Garde, Exeter; Deputy-Inspector-General Longmore, C.B., Netley. *Secretaries*—Mr. W. P. Swain, Devonport; Mr. Steele, Clifton, Bristol.

SECTION C. MIDWIFERY.—*President*—Dr. Beatty, Dublin. *Vice-*

Presidents—Dr. Swayne, Clifton, Bristol; Dr. Alfred Meadows, London. *Secretaries*—Dr. John Rolston, Stoke, Devonport; Dr. Phillips, London.

SECTION D. PUBLIC MEDICINE.—*President*—Dr. A. P. Stewart, London. *Vice-Presidents*—Mr. P. W. Swain, Devonport; Dr. Beddoe, Clifton, Bristol. *Secretaries*—Dr. Row, Devonport; Mr. D. Davies, Bristol.

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary*.
13, Newhall Street, Birmingham, April 11th, 1871.

FINANCIAL STATEMENT FOR 1870.

R. W. FALCONER, M.D., Treasurer of the British Medical Association, in account with that Association for the year commencing January 1st, 1870, and ending December 31st, 1870.

<i>Receipts.</i>		£	s.	d.
Subscriptions	3641	7	4	
Advertisements and sales	1607	0	11	
Balance in Treasurer's hands (last year)	13	7	11	
Total.....	5261	16	2	
<i>JOURNAL EXPENSES: Payments.</i>				
Printing	2856	8	0	
Engraving	13	12	0	
Editorship	256	0	0	
Sub-editorship	81	5	0	
Contributors	935	8	0	
Work at office	50	0	0	
Office clerks	175	0	0	
Office expenses	296	16	4	4664 9 4
<i>EXECUTIVE EXPENSES, ETC.:</i>				
Secretary's salary	300	0	0	
Secretary's petty cash	35	10	5	
Branch Secretaries and Collectors	28	2	10	
Reporting proceedings at Newcastle.....	43	7	6	
Stationery, printing, etc.....	75	1	2	
Advertising	2	18	6	
Sundry other charges	14	3	3	499 3 8
<i>SCIENTIFIC AND OTHER GRANTS:</i>				
Dr. Hughes Bennett	50	0	0	
Parliamentary Committee	10	0	0	60 0 0
				5223 13 0
Balance in Treasurer's hands (this year, 1871) ..	38	3	2	
Total.....	5261	16	2	

R. WILBRAHAM FALCONER, M.D., *Treasurer*.

We the undersigned, being the auditors appointed to examine the above accounts for the year 1870, have examined the same with the vouchers, and find the whole correct.

EDWARD LONG FOX }
WILLIAM J. CHURCH } *Auditors*.

We the undersigned auditors, appointed by a general meeting of the members of the British Medical Association, held at Newcastle-upon-Tyne, in the month of August 1870, having this day examined the General Secretary's cash-books, together with the lists forwarded by the Branch Secretaries, and the counterfoils of the receipts issued, certify the same to be correct, and that we are satisfied with the accounts which have been exhibited to us.

EDWARD LONG FOX }
WILLIAM J. CHURCH } *Auditors*.

Bath, March 28th, 1871.

CORRESPONDENCE.

RADCLIFFE TRAVELLING FELLOWSHIP.

SIR,—In the *Oxford University Gazette*, dated April 14th, appears a letter, addressed by the three Examiners for the Radcliffe Travelling Fellowship, to the electors under Dr. Radcliffe's will, proposing certain changes in the ordinance under which the examinations are at present conducted. It is proposed here to alter almost every provision for the mode of election that was asked of the electors now just eleven years

ago. The plea then was, that of those who were elected Travelling Fellows, few attained to any eminence, and all were damaged in their worldly prospects by the strict conditions annexed to the tenure of the office; viz., "that they should live five years out of the ten of their Fellowship in foreign lands". The old conditions may have been too hard; the term of study and expatriation perhaps too long for our railroad age; but the change then asked for and obtained, that the candidates might be sifted by examination, and elected one annually by merit under a distinct promise to graduate in medicine, was such as Dr. Radcliffe might have endorsed.

But look at the alterations now begged for. The examiners seek to divert the legacy of the great old physician to Queen Anne entirely from its bequeather's intent; to alter his provision for the better education of young physicians into a general University prize of £200, to be bestowed annually—and this without engagement to travel, without security of any kind that the *ars medicinae* should be any further promoted by the new order of Fellows.

Dr. Radcliffe, by the monies which he left to the University, and his endowment of this special Travelling Fellowship, sought to advance the science of medicine by giving two graduates of the University of Oxford, during all time, the opportunity of studying the art of healing in foreign lands; but he directed under his will that the electors to this office should not be resident members of the University. He placed the power of appointment in the hands of trustees whom he could well believe would be above the temptations of love of patronage or favouritism. The Lord Chancellor, the Archbishop of Canterbury, the Bishops of London and Winchester, the Chancellor of the University of Oxford, the Master of the Rolls, the two Chief Justices, the two Secretaries of State, were the electors in whose choice Dr. Radcliffe placed his trust.

Let us turn to the third proposal contained in the letter of the examiners, to see the full measure of the change which is being recommended—"The limitation of the absolute tenure of the Fellowships to one year, with a power to the examiners to continue them to the same holders year after year, on their being satisfied that the Fellows are actually and successfully engaged in scientific or clinical researches of an important character." Thus after one election the examiners, according to their discretion or caprice, will have the power to continue the same holders in office.

If the Radcliffe trustees be prepared to deprive the public of the advantages to medical science which Dr. Radcliffe's benevolent design in high degree secured, I, and I believe you, sir, with me, will agree that they ought to resign the powers of appointment committed to them into the hands of the governing council of the University rather than into those of its servants, its special examiners.

Now, in an appointment of this kind, not merely is the medical profession, but the whole youth of England who aspire to University honours, deeply interested; and I write at this length to you, sir, that the electors of this trust may be awakened to a sense of their obligations, and not be overpersuaded by the proposal of men who can be scarcely said to represent the views of the University of Oxford in this instance, and who are certainly not mealy-mouthed in asking for patronage for themselves.

I am, etc.,

REGINALD SOUTHEY, M.D. Oxon.,
Late Radcliffe Travelling Fellow.

Harley Street, April 21st, 1871.

OUT-PATIENT HOSPITAL REFORM.

SIR,—You have kindly allowed me on several occasions to appeal to the profession for funds to carry out the work of the Committee appointed to inquire into the subject of out-patient hospital administration. The response with which I have met has hitherto been very unsatisfactory; yet most persons see that no questions can possibly affect the interests of the medical profession more directly than this, and especially those members of the profession who are engaged in general practice. It is their interest, far more than that of the staffs of hospitals and dispensaries, which is at stake; and if they do not now come forward to help the work of the Committee, they will have no *locus standi* for complaint in future.

At the meeting which was held on the 20th instant, the late Committee, having finished its work and presented its Report, was dissolved, and a smaller Committee was appointed to carry out the resolutions which were adopted by the meeting. The former Committee has, however, some liability, for which, I suppose, I am responsible; and if my payment of the debts could secure effective reform in our out-patient department I would gladly bear the expense, for I believe they are at present a gross injury to the profession and a scandal to the public. But there is much *work* to be done, and work, too, which will involve

expense. The experience of the late Committee in this respect will undoubtedly act as a warning to the present; and it cannot be expected that they will both work and pay. I do not speak now by the authority of the Committee; but for myself I can only say that, unless some better response is made to this appeal than has been accorded to my former letters, I should strongly advise the Committee to drop the whole question. I am, etc.,

ALFRED MEADOWS.

27, George Street, Hanover Square.

P.S. The Chairman of the late meeting, Sir W. Fergusson, made an appeal for funds, the result of which was donations to the amount of *ten shillings*! Copies of the Report may be had by applying to me and sending a few postage stamps.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN.

At the last meeting of the Cardiff Board of Guardians, the Board voted, subject to the approval of the Poor-law Board, the sum of £20 (which sum was at the rate of 50 per cent. upon his salary) to Dr. Bates, one of the medical officers of the union, in consideration of extra and assiduous services rendered by him during the prevalence of a rather widespread epidemic in his district, chiefly in the parish of Rhos.

We entirely concur in the conclusion arrived at by the Auckland Board of Guardians, as to the four days' delay in attending Joseph Ellis, who meantime committed suicide. The delay was said to have arisen out of the carelessness of an assistant, but the medical officer is responsible for due attendance on medical orders, and the reprimand was justly directed to him officially, although the Board very properly intimated their perception of the fact that the fault lay not in personal negligence, but in defective business arrangements.

THE PROPOSED ROYAL COMMISSIONS ON RELIEF OF THE POOR.

SIR,—Will you allow me to supplement Dr. Rogers' request, made a week or two ago, by asking the whole of the profession to send, *without delay*, a letter somewhat similar to the following to their representatives in Parliament.

"Dear Sir,—May I request your attendance at the House of Commons on Friday next, May 5th, in order to support Mr. W. H. Smith's motion for a Royal Commission on the relief of the poor? I do so most confidently and conscientiously," etc.

Such an appeal from the profession would carry the day. The sick poor have none but the profession to look to.

I am, etc.,

WM. WOODWARD, M.D.

Worcester, April 22nd, 1871.

SMALL-POX IN ST. PANCRAS.

A LETTER which recently appeared in the daily press from Mr. Wickham Barnes, called attention to some serious delays in the mode of admitting small-pox patients to Poor-law hospitals, and to the dangerous exposure of such patients in public places prior to admission. He commented also on the evils arising out of the recent concentration of the whole vaccination of a population of two hundred thousand, with an area of twenty miles, in the hands of one vaccinator, in the very crisis of a serious epidemic. This letter has attracted, very usefully, much public attention. A special meeting of the St. Pancras guardians was held on Tuesday to consider this letter. Mr. Barnes was called upon to give his reasons for writing the letter. In reply, he stated the facts in detail; and persons were in attendance to confirm these statements. Our reporter ascertained that in one case a man with the eruption of small-pox upon him was sent from place to place, in search of a bed, from nine in the morning till nine at night—passing, in the interval, a considerable time in the nasty rooms of the relieving-offices at Grafton Hall and Compton Place, amongst healthy persons, while not walking about the streets. There were other cases of a similar character. After much discussion, in which some of the guardians freely indulged in personalities, while others showed an honourable sense of public duty and official obligations, Dr. Bridges, who was present on the part of the Poor-law Board, undertook to give his assistance in abridging the present formalities prior to admission. We understand that the question of rearranging the districts for vaccination will also be reconsidered.

A LITTLE INFORMALITY.

THE Worcester Board of Guardians appear to be bent upon making themselves publicly ridiculous, and to be very little scrupulous of the injury which their language is calculated to inflict on their officers. They recently passed a resolution, on very one-sided evidence, implying blame on their medical officer, and calling for a Poor-law investigation of his conduct in refusing to act on an order of the relieving officer. It now appears that the order was not signed by the relieving officer, but was "a little informal", the Guardians having "unconsciously permitted a pauper to sign the medical order." For this little informality, it was observed they would probably be "snubbed by the Poor-law Board, as they had been before, but they could afford to stand it, and had to whether they could or not." Notwithstanding the very frank admission that the medical officers were not empowered by the Poor-law Board to attend to orders signed by other than the proper officers, the gentleman who moved the resolution to rescind the previous vote was so bold as to state that the medical officer was so highly censurable for not attending to it, that "the worst punishment that could be inflicted upon him could not be greater than he was entitled to." We have never read a more unjustifiable and injurious observation. We doubt whether it is not as libellous as it is severe and unfounded; and it might be well that Mr. Birbeck should be made to remember that guardians are not privileged unjustly to assail the character and conduct of their officers, while pursuing a course which is justified by public regulations, and which they conscientiously believe to be the right one.

VACANCIES.

BRACADALE, Skye—Medical Officer and Public Vaccinator.
COVENTRY UNION—Medical Officer for District No. 3.
KIRKMICHAEL, Dumfriesshire—Parochial Medical Officer.
LOCHMABEN, Dumfriesshire—Parochial Medical Officer.
LOGIE—Parochial Medical Officer.
NARBERTH UNION, Pembrokeshire—Medical Officer for District No. 3.
NORTHLEACH UNION, Gloucestershire—Medical Officer for the First Division of District No. 3.
WAKEFIELD UNION, Yorkshire—District Medical Officer.
WESTRAY, Orkney—Parochial Medical Officer.
WISBEACH UNION, Cambridgeshire—Medical Officer for the No. 10(b) District.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

A CARDINAL DEFECT IN THE IRISH POOR-LAW SYSTEM.

IT was to have been expected that, when the Poor-law Commissioners rescinded their order for the appointment of an apothecary-general—which they very rightly did, on finding that it would have failed in answering the purpose intended—they at least would have taken some steps to reform the existing mode adopted by Boards of Guardians of accepting tenders for the supply of medicines; but, alas! for the poor, the ratepayers, and the credit of the medical officers, they have allowed things to settle down as of old. In the first place, there is want of uniformity in the printed forms of tender used by different Unions; the one sanctioned by the Commissioners only being used by some. For instance, the North Dublin Union employs it, while the South Dublin Union adopts one of its own composition; but both are so constructed as to give every facility for a contractor to make his lot balance well. Tinctures, and fluids generally, are supplied by the pound in the North Union, by the pint in the South Union. The form of tender *par excellence* is the Commissioners'. It contains the names of six hundred and forty-nine drugs and preparations in most unclassical Latin, some of the compounds at the same time being purely imaginary—for instance, compound tincture of quassia, simple tincture of eardamoms, and simple tincture of rhubarb; others are of great rarity, as the *gigartina helminthocorton*, which is tendered for at one penny per pound, although the contractor has not the most remote idea what it is. We have not the least doubt that, were "philosophers' stone" inserted in the list, a price per ounce or pound, as the case might be, would be affixed. "Form No. 1—Estimate of Medicines, etc.," required by medical officers, contains two hundred and twenty-five articles in English, being a very free translation of the Commissioners' printed form of tender: red iodide of iron, diluted prussic acid, mustard powder, and hydriodate of potash, are examples of its style. What is of paramount importance is reliability of the medicines administered: they ought to be above suspicion. But we should be rather dubious in giving a favourable prognosis in a case of *tæniæ*, if we were previously aware of the *extractum filicis liqui-*

dum costing only one penny per ounce. According to Soubeiran, it takes one pound of male fern rhizome to yield an ounce and a half of extract. However, when we find powder of ergot charged sixteen shillings per pound, we begin to be somewhat more confident that the oil of male fern *may* be genuine. It is quite time the Commissioners should make some move in a matter of such vital importance both to the poor and the ratepayers; and we have not the slightest doubt they will, considering their usual good sense and honesty of purpose.

VACANCIES.

BAILIEBOROUGH UNION, co. Cavan—Medical Officer and Public Vaccinator for the Shercock Dispensary District.

CROOM UNION, co. Limerick—Medical Officer for the Workhouse; Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Croom Dispensary District.

MITCHELSTOWN UNION, co. Cork—Medical Officer for the Workhouse.

OBITUARY.

JAMES L. WARREN, M.D.

DR. J. L. WARREN, who died on the 8th instant, at the age of 81, entered the medical service of the army in 1815, joining the army of occupation in Paris immediately after Waterloo. He served on the staff in the West Indies until his appointment in 1825 to the 6th Dragoon Guards. He was appointed to the rank of Surgeon and appointed to the 7th Hussars in 1838, and served with the regiment throughout the Canadian Rebellion of that year. He retired from the army in 1848, having served a period of upwards of thirty years on full pay.

EBENEZER GOODALL, F.R.C.S.I., Wexford.

MR. GOODALL was born in June 1806. He was educated at the Diocesan School, Wexford; and entered Trinity College, Dublin, in 1824. In July 1828, he became the indentured apprentice of the late Mr. William Henry Porter of Dublin, and was elected a member of the College of Surgeons of Ireland in August 1833. After this he was appointed Demonstrator of Anatomy of the Park Street School of Anatomy, Medicine, and Surgery, Dublin. This office he held until 1837, when he was appointed to the Dispensary of Castlebridge, County Wexford, where he performed the duties of medical officer for upwards of thirty-four years, until his death on March 20th, 1871. Mr. Goodall resided in Wexford, and had a very widely extended practice in no way confined to the locality of his dispensary. The cause of his death was fever caught in the zealous discharge of his professional duties.

CHARLES HOUSLEY, M.R.C.S.

MR. CHARLES HOUSLEY, late of Port Elizabeth, South Africa, died at 70, Boundary Road, on the 14th instant. Mr. Housley's medical career commenced as Assistant-Surgeon of H.M.S. *Medea*, in which vessel he served about two years off the coast of North America. On leaving the service, he commenced practice in the neighbourhood of London, and eventually became a well-known practitioner in London itself. During the Crimean campaign, he was selected by Sir Joseph Paxton to undertake the medical superintendence of the Army Works Corps. He went to the Crimea with the Corps; continued in office until the close of the war; and, on returning to civil life, recommenced practice in the metropolis. In the year 1858, an opportunity for practice offering at Port Elizabeth, Mr. Housley migrated thither, and soon became the leading medical man in the town and locality. He had a very extensive practice, and was made Surgeon to the Provincial Hospital, Port Elizabeth. He was also appointed Surgeon to the Port Elizabeth Artillery Volunteers, and latterly he also attended such of Her Majesty's troops as were quartered at Port Elizabeth.

About four years ago Mr. Housley had symptoms of diabetes, but continued at his work steadily until about four months since, when symptoms of chest-disease, pain in the abdomen, and rapid loss of flesh, led him to come to England and place himself under the care of his old friend Dr. Richardson, who, in occasional conjunction with another of his friends, Dr. Garrod, attended him until his death. For a time after landing in England there was some improvement in Mr. Housley's health; but it was only temporary, and he gradually sank until death ended his sufferings on Friday, the 14th instant.

Mr. Housley contributed little to the literature of medicine; but he was a thoughtful, able, and genial representative of a profession which he loved with his whole heart, and in the toils of which he continued to labour until he succumbed from physical inertia incident on disease. In his adopted home he will be long and affectionately remembered.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners, on April 25th; and, when eligible, will be admitted to the pass examination.

Messrs. Walter Frederick Lovell, Edward Charles Stirling, Henry Burton Liddell Smith, and Henry George Brigham (Students of St. George's Hospital); Frederick Frank Bradshaw, Charles Bernard Dalton, James William Henry Hawton, and Joseph Foreman (Guy's Hospital); Joshua Powell, Edward Markham Skerrett, Walter Shaw, and William Ambrose Greet (University College); Henry Maxsted Moxon, William Edward Ledyard, Aaron MacLean, and Walter John Kilner (St. Thomas's Hospital); William Strother, William John Haran Wood, George Cockburn Smith, and Charles Blyth (Glasgow School); John Mason Willey, Francis Edward Jackson, Trevor Wynn Williams, and Arthur Richard Barnes (St. Bartholomew's Hospital); William Adam Kennedy (Newcastle School); Aloysius Joseph King (Bristol School); Alfred Ernest Cave (London Hospital); William Lowry Penny (Middlesex Hospital); and John James Johnson (Westminster Hospital).

Seven candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their anatomical and physiological studies for three months.

The following gentlemen passed on April 26th.

Messrs. William Arthur Wilding, Rashell Thomas Davison, Henry William Mason, George Swithin Adey Waylen, Tom Francis Odling, Frank Edward Turner, William Tickle Whitmore, Albert John Venn, and James Shuter (Students of St. Bartholomew's Hospital); Eli Crossley Titterton Sutcliffe, Ernest William Sarcroft Wilkins, Howell Williams, and Percival Humble Watson (University College); Walter Hutchinson and Frederick Williams Baily (King's College); Thomas Buckle and James Raffles Harmer (Birmingham School); Henry Lawrence and William John Clarke Whitfield (Bristol School); James Daniel and John Edward Allen (Manchester School); William Henry Lush (St. Thomas's Hospital); Arthur Paul Sherwood (St. George's Hospital); and James Thomas Callcott (Newcastle School).

Thirteen candidates were referred to their anatomical and physiological studies for three months.

The following gentlemen passed on April 27th.

Messrs. Harry Archibald de Lantour, Robert Howden Kellie, Vincent Phelps, Francis Marcus Fay, Varley George Fay, and Albert Boyce Barnes (King's College); James Grant and William Colston Warne (Edinburgh School); Edward Milner and Gilbert Smith (St. Bartholomew's Hospital); William Henry Roots and William Oscar Jennings (Guy's Hospital); Alfred de Courcy Lyons and Alfred Edward Parker (St. George's Hospital); Charles Wooliscroft Belfield (Bristol School); John Payne Massingham (Birmingham School); Francis Henry Walsley (Manchester School); William Porter Maddison (Newcastle School); and William Henry Anderson (St. Mary's Hospital).

Twelve candidates were referred to their anatomical and physiological studies for three months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 20th, 1871.

Boreham, William Todman, Cantley, Norfolk
Llewellyn, George Joseph, Haverford West
Matcham, Alfred, Lowestoft
Parry, Thomas William, Carnarvon
Ravenhill, Edward Burton, Arlingham, Gloucester
Reston, Henry, Stretford, Manchester
Wacher, Frank, Underdown Herne, Kent

The following gentlemen also on the same day passed their first professional examination.

Deacon, Henry Pelham, St. Bartholomew's Hospital
Henson, Walter Knowsley, Hull Medical School
Scale, George John, Middlesex Hospital

UNIVERSITY OF ABERDEEN.—At a late medical graduation term, the following candidates, after the usual examinations, received degrees in Medicine and Surgery.

Degree of M.D.—Russick Laul Dutt, M.R.C.S.E., L.S.A., Calcutta; Kristo Dhan Ghose, R.C.S.E., L.M.S.C., Calcutta.

At the same time, the following candidates received promotion to the degree of M.D.

Hugh Wight Arbuckle, M.B., Thorne, Doncaster; James Allen Coutts, M.B., C.M., Banchoy-Ternan; Edward Lodewyk Crowther, M.B., C.M., Alford, Lincolnshire; James Cullen, M.B., C.M., Chumparun, Bengal; Thomas Birch Dyer, M.B., C.M., Bethlem Royal Hospital, London; Alexander Wood, M.B., C.M., Edwardesabad, Bengal; Edward Russell Woodford, M.B., C.M., Ventnor, Isle of Wight.

The following candidates received degrees in Medicine and in Surgery.

William Thomas Benham, Bristol (M.B. and C.M.); Theodore Rainy Brothie, Aberdeen (M.B. and C.M.); Archibald Carmichael, M.A., Maryculter (M.B. and C.M.); Alexander Richard Cobban, Whitfield, Berkeley (M.B. and C.M.); Charles Creighton, M.A., Peterhead (M.B. and C.M.); Charles Mann Crombie, Aberdeen (M.B. and C.M.); Charles Davidson, Aberdeen (M.B. and C.M.); George Farquhar Davidson, Aberdeen (M.B. and C.M.); William Henry Edwards, M.R.C.S.E., Antigua (M.B. and C.M.); William Andrew Durnford Fasken, M.R.C.S.Eng., London (M.B.); George Innes Fraser (C.M.); James Frederic Goodhart, L.R.C.P.

London, M.R.C.S., Brighton (M.B. and C.M.): John Gordon, Elgin (M.B. and C.M.); George Wm. Jotham, Kidderminster (M.B. and C.M.); Samuel Thomas Knaggs, L.K. & Q.C.P.I., L.R.C.S.I., Newcastle, New South Wales (M.B. and C.M.); Nathaniel Lawrence, Longside (M.B. and C.M.); David Lowson, Aberdeen (M.B. and C.M.); John C. B. Maclean, M.A., Kiltarn, Ross-shire (M.B. and C.M.); Hugh M'Calman, Caithness (M.B. and C.M.); Lewis Walter Marshall, M.R.C.S. Eng., Bristol (M.B. and C.M.); Thomas Milne, M.A., Ellon (M.B. and C.M.); Thomas Raitt, Aberdeen (M.B. and C.M.); James Shepherd, M.A., Aberdeen (M.B. and C.M.); James Simpson, Aberdeen (M.B. and C.M.); Henry Waldo, Clifton (M.B. and C.M.); William Johnson Walsham, L.S.A., London (M.B. and C.M.); Alfred Henry Williams, London (M.B. and C.M.); Alexander Wilson, M.A., Rayne (M.B. and C.M.).

Of the above-mentioned Candidates—Archibald Carmichael, James Frederic Goodhart, David Lowson, William Johnson Walsham, and Alexander Wilson received their Degrees in Medicine and Surgery, with Highest Academical Honours; Russick Laul Dutt, Kristo Dhan Ghose, and Samuel Thomas Knaggs their Degrees in Medicine, with Academical Honours; and John Cassilis Birkmyre Maclean, Lewis Walter Marshall, and Thomas Milne their Degrees in Surgery, with Academical Honours.

The *Theses* of James Frederic Goodhart on "Artificial Tubercular Tuberculosis and its relation to Cellular Pathology, and the Growth of Tumours"; of Samuel Thomas Knaggs on "The Sagacity of Nature's plan as exhibited in the arrangement of the Tendons of the Digits of Vertebrate Animals"; and of William Johnson Walsham on "The Thermometer as an aid to the Diagnosis and Prognosis of Disease," were considered deserving of high commendation.

At the same time, Louis Richard Connor was certified as having passed all the Examinations, and is entitled to receive Degrees on his attaining the necessary age; and the following were declared to have passed part of their Examinations:—John F. Arthur, Alexander G. Burness, Edward N. Carless, William Carless, Peter Alexander Chiappini, William Alexander Cushny, Lewis Edwardes, George William Fowler, Alexander Fraser, William Geddie, John Stephen Gibbons, John George Hall, Henry Arthur Hallett, Frederick Hay, Walter Gawen King, John Lyon, Duncan John Mackenzie, William Mearns, George Mickle, Francis Ogston, Richard Parris, David Aikman Patterson, John Richard Philpotts, John Pringle, James Alexander Reid, Robert William Reid, Thomas Rennie, Henry John Robbins, James Russell, Charles Gordon L. Skinner, James Stephen, Peter Tytler, Alexander Reid Urquhart, James Walker, George E. Welford, James Davidson Wyness, and Robert Mortimer Yule.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BIRMINGHAM DENTAL HOSPITAL—Consulting Physician; Consulting Surgeon; Extra Dental Officer; Chloroformist.
BOURNEMOUTH DISPENSARY—Physician.
BRISTOL LUNATIC ASYLUM, Stapleton—Medical Superintendent.
CHELTENHAM GENERAL HOSPITAL and DISPENSARY—Resident Surgeon to the Branch Dispensary.
CITY OF LONDON LYING-IN HOSPITAL, City Road—Surgeon-Accoucheur.
EAST RIDING OF YORKSHIRE LUNATIC ASYLUM, Beverley—Medical Superintendent.
GLASGOW TOWN'S HOSPITAL—Assistant Medical Officer.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton—Resident Clinical Assistant.
LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE—Demonstrator of Practical Physiology and Histology.
LEICESTER INFIRMARY—Honorary Surgeon Dentist.
LONDON FEVER HOSPITAL—Assistant-Physician.
ROYAL KENT DISPENSARY—Resident Medical Officer.
ROYAL LONDON OPHTHALMIC HOSPITAL—Dispenser.
ROYAL PORTSMOUTH, PORTSEA, and GOSPORT HOSPITAL—House-Surgeon.
SCARBOROUGH DISPENSARY and ACCIDENT HOSPITAL—House-Surgeon and Secretary.
SEAMEN'S HOSPITAL (late *Dreadnought*), Greenwich—House-Surgeon.
SOUTH STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Physician; House-Surgeon; Dispenser.
ST. MARY'S HOSPITAL, Paddington—Physician-Accoucheur.
ST. THOMAS'S HOSPITAL—Physician and two Assistant-Physicians; Surgeon and two Assistant-Surgeons.
SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds—Physician.
SWANSEA HOSPITAL—Medical Officer for Out-patients.
WESTMINSTER HOSPITAL—Resident House-Surgeon.

[For Poor-law Vacancies see Poor-law Department.]

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*CANDLISH, Henry, M.D., appointed Medical Officer to the Alnwick Union Work-house and Public Vaccinator to the Alnwick District.
MAIN, Alexander J., M.D., appointed Medical Officer and Public Vaccinator to the Lesbury District of the Alnwick Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

THOMSON.—At Kingswinford, near Dudley, on April 16th, the wife of *John Thomson, L.R.C.P. & S. Edin., of a son.
WOLFE.—On April 23rd, at Glasgow, the wife of *J. R. Wolfe, M.D., of a son.

MARRIAGES.

HUGHES, Arthur J., Esq., Solicitor, of Aberystwith, to Mary Elizabeth, eldest daughter of *Richard GILBERTSON, Esq., Surgeon, of the same place, on April 13.
*KNIGHT, Alexander A. H., M.D., of Keswick, to Sidney Eliza, elder daughter of James WARD, Esq., of Clapham Common, at Clapham, on April 25th.
*LEAH, Thomas, Esq., Surgeon, of Stonehouse, Devon, to Catherine, only daughter of the late Trevenen JAMES, Esq., of London, at Christchurch, Forest Hill, on April 15th.

LUNDY, Lo1 Esq., Surgeon, Feltham, to Margaret Caroline, fourth daughter of Robert MILLER, Esq., Shepherd's Bush, on April 11th.
PARSONS, R. H. B., Esq., Solicitor, of Stroud, Gloucestershire, to Norah, daughter of *George MOORE, Esq., Surgeon, of Moreton-in-the-Marsh, on April 10th.

DEATHS.

BROWN, Thomas, Esq., Surgeon, of Finsbury Circus, aged 68, on April 15th.
BUNNETT, Henry Jones, M.D., late Deputy Inspector-General of Military Hospitals in Spain, in Manchester Street, aged 83, on April 13th.
GARRETT, Mark B., M.D., at Colet Place, Commercial Road East, aged 59, on April 9th.
GOATE, Charles E. V., M.D., at Coventry, on April 15th.
GRANT, Thomas W., M.D., of 17, Edgware Road, aged 53, on April 8th.
GUTHRIE, Hugh, M.D., formerly of the Bengal Medical Service, at Upper Norwood, on April 13th.
HOUSLEY, Charles, Esq., Surgeon, of Port Elizabeth, at Boundary Road, aged 54, on April 14th.
*JACKSON, Thomas, M.D., at Hull, on April 10th.
JAY, Joseph Tillett, Esq., Surgeon, at Acle, Norfolk, aged 56, on April 5th.
M'COARD, James, M.D., at Belford, Northumberland, aged 29, on April 8th.
MITCHELL.—On April 10th, at Notting Hill, Mary, widow of Alexander Mitchell, M.D., of the Cape of Good Hope.
MORGAN, Richard, Esq., Surgeon, of Abercrombi, Glamorganshire, aged 27, on April 5th.
OGDEN, Henry, M.D., of Bishopwearmouth, aged 55, on April 13th.
SIBBIT, Edward, Esq., Surgeon R.N., aged 87, on April 6th.
STRONG.—On April 22nd, after a long illness, Maria Mary, wife of *Henry John Strong, Esq., of Croydon.
SWALES.—On April 25th, at Sheerness, aged 49, Mary, wife of *Edward Swales, Esq., Surgeon.
WARREN, James L., M.D., Surgeon (half-pay) 7th Hussars, at Southsea, aged 81, on April 8th.

THE Dowager Marchioness of Westminster has been requested to lay the foundation stone of the Cottage Infirmary, about to be erected at Shaftesbury, as a memorial to the late Marquis of Westminster.

BRITON MEDICAL AND GENERAL LIFE ASSOCIATION.—The seventeenth annual report, presented at the general meeting of shareholders and policyholders, held at the Society's House, on Thursday, March 23rd, 1871, was of a highly satisfactory character. Of new business, the Association has received 2,373 proposals for assuring the sum of £680,005 : 13 : 5, which have been thus dealt with : 94, for assuring £25,950, were declined ; 392, for assuring £137,524, were not completed from various other causes ; 1,887 were completed, and policies for £516,531 : 13 : 3 were issued, producing in annual premiums the sum of £17,473 : 1 : 11. Seven new annuity bonds were granted, in respect of which £1,121 : 5 : 9 was received as purchase-money. The total premium income of the Association, after deducting the amount paid to other companies for reinsurance, amounted to £220,854 : 12 : 5 ; the interest received to £24,311 : 17 : 11 ; the other items of receipt to £1,310 : 17 : 9 ; making a total of £246,477 : 8 : 1. By reason of deaths during the year of 401 persons assured in the Association 471 policies had become claims. The amount of these claims was (less re-assurances) £171,128 : 14 : 7. The auditors report that "the clear and systematic manner in which the books are kept has greatly facilitated our labours ; and, having checked every payment with its corresponding voucher, and carefully inspected the various securities held by the Company, we are glad to be able to testify to the correctness of the balance-sheet and to the satisfactory nature of the Company's investments." The directors recommended a dividend, free of income-tax, at the rate of £8 per cent. *per annum* on the capital of the Association as increased by the bonus. The directors were able to report continued efficiency in the various branches and agencies. Many parts of the country had been in a state of great depression, yet the various provincial representatives contributed largely to the new business reported. The Scottish Local Board had greatly assisted in obtaining the results of the year. In concluding their report, the directors with confidence referred to the continued prosperity and long-tried security of the Association. During the year two important legislative enactments had been passed, which should very much increase the business of life assurance throughout the country, viz., the "Life Assurance Companies Act" and the "Married Women's Property Act." By the former, a healthy guide to the operations of assurance societies had been established, and by the latter an additional inducement was held out to persons to adopt the principle of life assurance, as a means whereby to effect easy and secure family provisions. The directors desired to take advantage of these improvements in the law of life assurance to further popularise its practice, so far as this Association was concerned ; and they again asked large body of shareholders and members to aid them in their endeavours to increase the business, and so extend the public usefulness of the Association. We may remind our members that this Association has deserved well of the profession from the first, and has largely identified itself in its management with medical interests.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY .. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic Hospital, 2 P.M.

SATURDAY St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8 P.M. Dr. William Cholmeley, "The Annual Oration."—Entomological Society.—Epidemiological Society.

TUESDAY.—Pathological Society of London, 8 P.M. The following specimens will be exhibited:—Dr. Murchison and Dr. Cayley, *Post Mortem* Appearances in a Case of Paralysis Agitans; Dr. Dickinson, On the Composition of the Renal Calculi in the Museums of London; Mr. Gay, Subclavian Aneurism; Mr. Gay, Myxoma; Dr. J. R. Bennett, Cancerous Disease of the Lung; Dr. Douglas Powell, Cases of Fatal Hæmoptysis; Mr. H. Arnott, Malignant Osteoid Tumour of the Fibula.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Dr. Wiltshire, "On Tetanus after Abortion"; Dr. Meadows, "On Hæmatocoele"; Dr. Playfair, "On a case of Sudden Death after Delivery."—Royal Microscopical Society, 8 P.M. Dr. Maddox, "On the Structure of Lepidopterous Scales as bearing on the Structure of Lepidocytus Curvicollis"; Mr. B. T. Lowne, "On the Foot of Dityscus Marginalis."

THURSDAY.—Harveian Society of London, 7.15 P.M., Council Meeting (Special). 8 P.M., Mr. Berkeley Hill, "On the Treatment of Surgical Inflammation by Counterirritation."—Chemical Society.—Royal Society.—Linnean Society.

FRIDAY.—Western Medical and Surgical Society of London, 8 P.M.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with *halfpenny* stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

WE shall publish next week Dr. Bell Taylor's letter on the Contagious Diseases Acts, Dr. Skinner's and Messrs. Arnold's letters on Instruments for Chloroform Administration, Dr. Seaton's paper on the Lessons to be derived from the Small-pox Epidemic, Dr. Pinckney's communications, and other letters and papers unavoidably postponed.

COTTAGE HOSPITALS.

SIR,—A friend of mine proposes to build a small Memorial Cottage Hospital. As I have no practical information upon the subject to give him, will you oblige me by recommending what to advise him as best to do, whom and what to consult?

April 19th, 1871.

I am, etc.,

A MEMBER.

** We recommend Mr. Horace Swete's excellent *Treatise on Cottage Hospitals*.

DR. CLEAVER (Liverpool).—The paper shall appear.

WE should be very happy to oblige our correspondent "*Clericus*"; but, although we quite accept his statement that his request is not based on mercenary grounds, to comply with it would really be no kindness to him. We strongly recommend him to take the usual methods of getting advice from recognised authorities. That which is volunteered is deficient in criteria, and apt to prove something worse than valueless.

ERRATUM.—In the notice in last week's JOURNAL, of the Manchester Royal Eye Hospital (page 425), it is stated that the number of patients attended to during the year 1870 was 6,062. The correct number is 6,862; of whom 840 were carried over from the preceding year, whilst 6,022 were fresh admissions in 1870.

HOSPITAL REPORTS ON FIBROUS TUMOURS OF THE UTERUS.

DR. T. W. HIME writes to point out that, under the head of Sheffield Hospital for Women, we reported last week only the observations of Dr. Aveling, formerly of Sheffield, but now of London, whose present connection with that hospital is that of Consulting Physician. We shall be very happy to receive notes of the opinions and practice in fibrous tumours of the acting staff, in accordance with the general request which we published in commencing the reports.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. F. H. HEATHCOTE, not later than *Thursday*, twelve o'clock.

ERRATUM.—At page 424 of JOURNAL of last week, for *Army Medical Register*, read *Army Medical Regulations*.

DR. PAYNE'S RECOLLECTIONS OF VIENNA.

SIR,—Having been much interested in Dr. Payne's information about medical science in Vienna, I desire, through the medium of the BRITISH MEDICAL JOURNAL, to ask him to supplement his paper with an account of the Medical Colleges, if any.

1. Are there Corporations corresponding to the Colleges of Physicians and Surgeons?

2. Are there any large medical libraries corresponding to that of our College of Surgeons?

3. Are there any societies corresponding to the Royal Medical and Chirurgical in London, or the Academy of Medicine in Paris?

Similar information about Berlin would interest a large circle of readers.

I am, etc.,

A NON-TRAVELLING FELLOW.

WE have to thank many correspondents for the tenor of their letters concerning the published correspondence with the Honorary Secretaries of the Manchester Medico-Ethical Association.

PHYSICIANS AND DOCTORS.

SIR,—I quite agree with the reply to F.R.S., in the JOURNAL of April 15th, that a Licentiate of the Royal College of Physicians may call himself a Physician, but has no right to the title of Doctor. I really cannot imagine how the Licentiates of the Royal College of Physicians of Edinburgh can have the audacity and assurance to call themselves Doctor, in the face of a published protest from the Royal College itself issued last year, which commences as follows.

"1. The College has been repeatedly charged with having issued its license to practise in a way calculated to lead to the assumption of the title of Doctor of Medicine by persons having no claim to it. Nothing can be more groundless than this charge. The College has never, directly or indirectly, claimed the possession of any power to confer the title of Doctor; and applicants for its licence have been, in every instance in which inquiries were made on the subject, informed, in the most express terms, that no such title was granted by the College."

In order as far as possible to do away with the wrong assumption of this honoured title, I would suggest that every University graduate should inquire into the actual qualification of every so-called Doctor of his acquaintance, and carefully and studiously avoid addressing any by the title of Doctor, except those who have become regularly entitled to that University distinction.

April 19th, 1871.

I am, etc.,

MEDICINE DOCTOR.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, April 22nd; The New York Medical Record, April 13th; The Boston Medical and Surgical Journal, April 13th; The Madras Mail, Feb. 13th; The Shield, April 22nd; The Philadelphia Medical Times, April 5th; The Philadelphia Medical Independent, April 8th; Saunders' News Letter, April 6th; The Worcester Advertiser, April 15th; The Western Mail, April 24th; The Auckland Times and Herald, April 21st; The Australian Medical Gazette for February; The Manchester Evening News and Daily Advertiser, April 26th; The Western Post, April 20th; The Sligo Independent, April 22nd; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. W. D. Husband, York; Dr. Rumsey, Cheltenham; Dr. Falconer, Bath; Dr. Evanson, Torquay; Mr. H. C. Lawrence, London; Dr. J. Watkins, Newton-le-Willows; Mr. T. M. Wilkinson, Lincoln; Mr. Garrett, London; Captain Burgess, London; Our Manchester Correspondent; P. M. O., Tipperary; The Secretary of the Pathological Society; Dr. Moore, Lancaster; Mr. Acton, London; Dr. Walker, Peterborough; Mr. H. Morgan, Lichfield; Mr. W. B. Hemming, London; The Secretary of the Obstetrical Society; Dr. J. C. Thorowgood, London; The Secretary of the Harveian Society; Dr. H. T. Sylvester, Swansea; Mr. J. Wickham Barnes, London; Dr. D. T. Maunsell, Dublin; Dr. A. Meadows, London; Dr. Southey, London; Dr. Robert McDonnell, Dublin; Dr. Akerman, London; Dr. Woodward, Worcester; Mr. Pennefather, London; The Secretary of the Royal Microscopical Society; Dr. Knight, Clapham; Mr. C. J. Denny, Wexford; Mr. E. J. Worth, West Arderton; A Member, Huntingdon; Mr. W. J. Cleaver, Liverpool; Dr. C. E. Glascott, Manchester; Mrs. Marshall, London; Dr. Angus Fraser, Aberdeen; Dr. T. W. Hime, Sheffield; Dr. D. Campbell Black, Glasgow; Dr. Acland, Oxford; Mr. Haviland, London; Sir Dominic Corrigan, Bart., M.P., Dublin; Dr. Bell Taylor, Nottingham; Mr. B. Alfred Rugg, Bournemouth; Dr. F. R. Fairbank, Lynton; Rev. C. Howe, Dewsbury; Dr. Henry Harris, Redruth; Dr. R. L. Heard, Bray, Wicklow; Mr. H. R. Howatt, Glasgow; The Librarian of the Liverpool Medical Institution; Dr. Druitt, London; Dr. Edwards, Sparkebrook; Mr. Steele, Clifton; Mr. W. E. Porter, Lindfield; Mr. Gant, London; Dr. F. Weber, London; Dr. Colles, Edwardesbad; Dr. C. H. Crane, Washington; etc.

LETTERS, ETC. (with enclosures), from:—

Dr. Seaton, Surbiton; Dr. T. L. Bruntton, London; Dr. A. Fleming, Birmingham; Mr. W. P. Swain, Devonport; Dr. J. Crichton Browne, Wakefield; Dr. Thomas Skinner, Liverpool; Dr. G. H. Philipson, Newcastle-upon-Tyne; Dr. Broadbent, London; Mr. James Dixon, London; Mr. T. Watkin Williams, Birmingham; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Our Dublin Correspondent; The Committee of the University College Hospital; Dr. Charles Kidd, London; Our Edinburgh Correspondent; Dr. Handfield Jones, London; Dr. H. Cooper Rose, Hampstead; Mr. W. L. Dickinson, Workington; Mr. Thornhill, Birmingham; Our Glasgow Correspondent; Mr. Hartley, Doncaster; Dr. Joseph Rogers, London; Dr. H. T. Lanchester, Croydon; Dr. Pyle, Sunderland; Dr. Rendle, Clapham; Mr. W. J. Harris, Worthing; Mr. C. H. Spence, Bedale; Dr. Gill, Dover; The Rev. E. Bartrum, Berkhamstead; Dr. Sankey, Sutton Valence; Mr. R. Harrison, Liverpool; Mr. Board, Bristol; etc.

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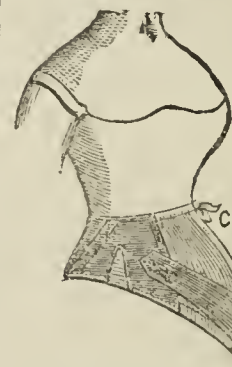
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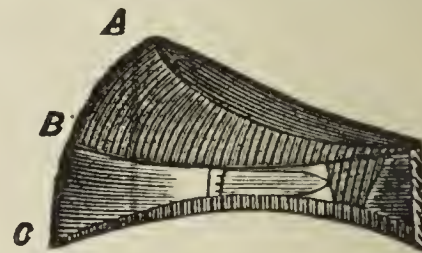
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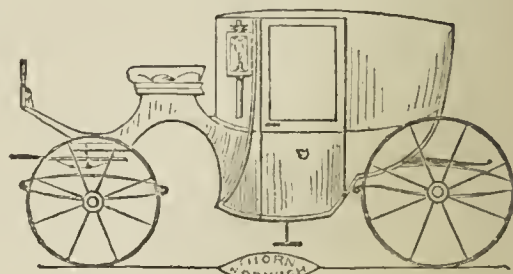
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CLINICAL LECTURES

ON

MENTAL AND CEREBRAL DISEASES.

By J. CRICHTON BROWNE, M.D., F.R.S.E.,

Medical Director, West Riding Asylum; Lecturer on Mental Diseases to the Leeds School of Medicine; etc.

I.—BRAIN-WASTING.—*Concluded.*

IF we inquire what these mental symptoms are which usher in brain-wasting, and which it is so important to recognise at an early period, we shall find that they closely resemble the forerunners of dotage or second childishness, and like these are subject to variations. In a majority of cases, however, the first of them is a difficulty and painfulness in fixing the attention. Consciousness is not so readily focused as it ought to be, nor is the information obtained through its attentive exercise as vivid and distinct as it formerly was. The application of consciousness to a determinate object, requires an unwonted effort, and is incapable of being maintained except for a short time. Even the eyes occasionally wander vacantly over the objects before them, as if it required an effort to fix them in a perceptive attitude. E. N. told us that his first warning of mental overthrow and brain-wasting was an inability to read his newspaper in the evening with proper comprehension. He got through his day's work as a mechanic very well, but when he took up a newspaper or book, the words seemed to have no meaning, or one so obscure that he had to puzzle over it some time before he could compass it. After this failure of attention, comes a failure of memory. The restrictions placed on the faculty of acquisition extends to the faculties of retention and reproduction. The later pigeon-holes of memory are but half filled, and their contents slip out of them. The events of yesterday are forgotten, but those of twenty years ago are remembered. The obscure and dim cognitions acquired through a feeble and vacillating attention cannot be conserved, but the vigorous impressions of stronger days can still be recalled. You constantly encounter patients here who can give a correct history of themselves up to the very beginning of their illness, and who from that point remember little or nothing. Along with this lapse of memory at the outset of brain-wasting, there are sometimes curious experiences which I can only call reminiscent spasms—isolated, excruciating retrospections. Suddenly, without prelude, there springs up in memory the representation of some bygone danger, some forgotten sorrow, some misadventure, awkwardness, or folly. It comes with an acuteness and painfulness unusual in mere remembrances. The bygone danger comes back with a pang as if it were a present jeopardy; the awkwardness or folly as if it had been that instant perpetrated, so that the shame of it was still tingling in the nerves. So vivid are these reminiscent spasms, that a start or a sigh sometimes accompanies them. E. N., to whom I have already alluded, tells me that, several times a day, a terrible fall which he once sustained recurs to his memory, and produces a quaking fear, which is, he says, "Just as if some one was stepping over his grave."

As brain-wasting advances, other indications of mental aberration rapidly show themselves. Judgment is crippled, and volition circumscribed. Confusion of ideas occurs. The threads of thought are easily broken, and cannot be gathered up and united again. There is a sluggishness and inertia of the hitherto nimble and active mind—universal and constant, or occasional, and only in certain directions. At this time, too, the affections become frigid or perverted. A mother exhibits no concern about her children, and a father wishes to turn out of doors and disinherit those to whom he had devoted his life. Diseased appetites also arise. There is a craving for stimulants, and a singular pruriency of thought and conversation. This last symptom, however, from some cause which I am unable to explain to you, is much more characteristic of senile decay than of brain-wasting occurring prematurely in middle life.

With still more pronounced brain-wasting, mental disorder becomes still more prominent. The ordinary laws of association of ideas in

time, space, class, etc., are no longer operative, but incongruous processions of ideas occupy the mind. Mental processes become visibly slow and laborious; a question requires to be repeated several times before it can be grasped and understood, while the answer to it is given with cumbrous effort, and is probably inaccurate. The older treasures of memory are involved in ruin as well as the more recent ones, and familiar acts become arduous or impossible. S. H., now in 35 Ward, a barber from Bradford, used to stop in the middle of shaving his customers until told to go on, and wander about the country looking for his father, who had been dead many years. At this stage, there is almost invariably an imperfect appreciation of the passage of time. S. H. told us, when he had been here three days, that he had just arrived two hours previously, and bungled over the day of the week and the month of the year. At this stage, too, if not earlier, emotional disturbance appears. This is sometimes of a fluctuating description, mirthfulness and dejection succeeding each other, and neither of any duration. There is a gleam of sunshine between two tunnels of despondency, and states of feeling change as inexplicably as the contents of a conjuror's box. More frequently, however, there is some degree of persistent melancholia, which remains as vague objectless depression, or shapes itself into delusions. J. L. is low-spirited, he cannot tell why. S. K. is in a similar state, because he thinks himself ruined and destined to die in a workhouse. G. J. is wretched, because his friends have deserted him; and S. W., because there is a conspiracy to put him to a painful death, which he endeavours to escape by jumping, from time to time, off a table or chair, under the singular belief that the ground is soft and pulpy, and will swallow him up if he can only spring upon it with sufficient impetus. Next to the faults of memory and slowness and confusion of thought, depression of spirits, with vague dread and apprehension, is, indeed, the most characteristic mental symptom of brain-wasting. If the disease be not arrested, its further progress is marked by still greater destruction of memory and general bewilderment. Friends and relations are mistaken for each other, day cannot be distinguished from night, and the way is lost in passing from the kitchen to the parlour. J. C., when in bed, imagined that he was in a railway train or on board a steamboat; and W. S., wandering along the gallery, fancied himself promenading a street. Now, too, there are in some cases restlessness, incoherent talking and excitement, chiefly occurring at night. Hours are spent in arranging the bed-clothes or in fraying them out, in purposeless movements or unintelligible cries. After this comes more complete fatuity, a state of torpor, silence, and helplessness, which gradually deepens into death.

The bodily symptoms of brain-wasting are quite as well marked as those mental indications of it which we have just discussed. The earliest of them are general and disproportional weakness and prostration following any exertion—headache of a dull heavy character, generally in the vertex, and a singular pallor of countenance, which is valuable in differential diagnosis, and which remains throughout the whole course of the disease. Instead of the flushed features of general paralysis, or the sallow dusky face of the chronic epileptic, we have here a peculiarly chalky whiteness of the skin, difficult to describe, but readily recognised when once appreciated, and very distinct from the pallor of simple anæmia. It perhaps more resembles the complexion in advanced Bright's disease than anything else to which I can compare it. You may see it admirably illustrated in M. S., in Ward 24, and in E. K., in Ward 21. Whenever mental impairment shows itself decidedly, then other bodily symptoms display themselves. Sometimes cramps are felt in the limbs, or anomalous sensations, such as tinglings, creepings, and a sense of numbness, deadness, and weight, not constant, but recurring from time to time, and lasting at first only for a few minutes. Contemporaneously with these, the appetite becomes capricious, being now impaired and again voracious; the bowels become constipated, and emaciation is apparent. A little later, a convulsive attack occurs, affecting one or both sides, and followed by coma more protracted but less deep than in ordinary epileptic seizures; or more commonly, without convulsions or coma, paralysis is insidiously developed. Muscular power is much diminished in one limb or side, or in all the limbs; or one eyelid droops, or the mouth is drawn down at one angle, or the tongue is tremulous, and is pushed to one side. Articulation is altered, generally becoming slow and laborious, and almost invariably the pupils are unequal. Both are, perhaps, somewhat dilated, one slightly more so than the other, and both are exceedingly sluggish in their movements. At the same time, dimness of vision, soundings in the ears of very varied character, and peculiar tastes and smells, are complained of. The next step is more distinct hemiplegia, accompanied, perhaps, by a return of the convulsions. In many cases, however, convulsions never occur at any period, and in others they are confined to an early stage of the disease. At this time, there is quickening of the pulse, which

ranges from 90 to 120 per minute, and is also feeble and compressible. The acceleration is nearly as great in the morning as in the evening; and this constitutes a point of difference from general paralysis of equal duration, in which the evening pulse would average ten beats higher than that of the morning. The temperature in brain-wasting is, as a rule, slightly depressed, and is much more uniform than that of general paralysis. In three cases of brain-wasting, we found the average of twenty days' observations to give a morning temperature, at 11 A.M., of $97\frac{2}{3}$, and an evening temperature, at 9 P.M., of $98\frac{1}{3}$; whereas in five general paralytics, we found the average of twenty days' observations to give a morning temperature of $97\frac{2}{3}$, and an evening temperature of $99\frac{2}{3}$. In looking at the charts of temperature, you will be at once struck by the much greater evenness of those having reference to brain-wasting. We have none of those sudden fluctuations of temperature, now rising to $100\frac{1}{5}$, and then sinking to $94\frac{3}{5}$, which seem to be characteristic of general paralysis.

As brain-wasting progresses, emaciation does so also, *pari passu*. The subcutaneous fat is absorbed, the muscles grow soft and flaccid, and the skin has a shrivelled appearance. If you glance at the weight-book, you will see that G. H., suffering from this malady, fell, in three months, from 148 to 128 lbs.; and J. P., in nine months, from 169 to 155. A steady loss of weight is incurred as long as the wasting goes on.

In the final stages of brain-wasting, either the hemiplegia becomes more complete, or the general muscular weakness more extreme, until at last the face is devoid of expression, and the body almost incapable of voluntary movement. Control over the sphincters is lost, and occasionally there are jactitation of the arms and legs. It is worth remarking that, in the hemiplegia of brain-wasting, there is not nearly as much of the predominance of the flexor over the extensor muscles in the paralysed limbs, as in other forms of hemiplegia. Towards the close of brain-wasting, we have general anæsthesia, so that pricking, pinching, and tickling, cause little inconvenience. We have impairment of the sense which confers an appreciation of temperature, so that the skin may be burnt or scalded under the belief that it is only exposed to a moderate warmth. We have retardation of the circulation in the small vessels, so that the surface, especially towards the extremities, is cold and of a livid hue. We have increased friability of the tissues, so that extravasation of blood or œdema takes place on the application of the most trifling violence. And we have an abnormal state of nutrition pervading the whole system, so that the tissues are wasted; there is excessive desquamation of epithelium, and the effects of bruises or wounds are very tardily removed. In this miserable state, the slightest attack of bronchitis or congestion of the lungs, or diarrhœa, extinguishes the flickering life. The proper termination of the disease, however, is in coma, rapidly eventuating in death.

As regards prognosis, I need scarcely announce to you that brain-wasting is a very formidable disease, and that, in a majority of instances, it has a fatal issue. But neither need I tell you, who have watched the practice of this hospital, that it is not necessarily mortal, but that, if taken in time, it is often amenable to treatment. You have seen many patients in this asylum, presenting all its pathognomonic features, who have recovered and gone home quite well. You have seen many who have reached almost the last stage when received here, and who have undergone remarkable improvement. The only rules which I can give you to guide you in prognosis are these, and I am well aware that they are very vague. 1. Women recover from brain-wasting more frequently and rapidly than men. 2. The earlier the age at which brain-wasting occurs, the better is the prospect of recovery. 3. The more decided the paralytic symptoms, the worse is the prospect of recovery.

What, then, is the treatment under which favourable results may be obtained in cases of brain-wasting such as we have been to-day studying? What has been the course pursued in those cases which some of you have watched recovering here? It has been almost invariably the same, and has consisted in the administration of cod-liver oil and the hypophosphite of soda, with the occasional addition of small doses of tincture of opium and sulphuric ether. We owe a debt of gratitude to Dr. Radcliffe for pointing out the value of cod-liver oil and the hypophosphites in debilitating nervous diseases. They supply the essential elements of nerve-nutrition in an easily assimilable form, and are unmistakably beneficial in cases of brain-wasting. A tablespoonful of cod-liver oil, and fifteen grains of the hypophosphite of soda, given twice or three times a day, at the outset of such a case, often arrest at once the downward tendency, and induce restoration of mental and muscular power. Sometimes, when these remedies seem ineffectual, or when they are slow in their operation, doses of from five to fifteen drops of tincture of opium and sulphuric ether, twice a day, expedite their action, besides conferring independent benefits. The opium

gives, as it were, a fillip to cerebral nutrition, and thus diffuses a favourable influence through the whole economy. Under its use the tongue cleans, the appetite improves, the bowels become regular, the muscles strong and steady, and the mind clear.

Along with the medical treatment of brain-wasting, dietetic and moral treatment must be carefully attended to. A liberal and highly nourishing diet, with a regulated quantity of wine in some cases, must be allowed. Fresh air and freedom from anxiety and harassment must be secured. The mind must either be kept in a state of entire rest, or only light and agreeable occupation permitted.

Let me recall to you one or two cases of brain-wasting which you have seen successfully treated here. S. W., aged 53, a labourer from Bramley, was admitted on May 25th, 1870. He was said to have been insane for ten months, having become weak-minded and so much depressed as to have attempted suicide. His brother was, at the time of his admission, an inmate of this asylum, labouring under brain-wasting. On examination, S. W. was found heavy and demented. He could not state his own age, the day of the week, or the season of the year. He drawled out that his head was empty, and that he was afraid of the end of the world. He was very thin, his eyes sunken, his skin of a ghastly pale colour. His pupils were unequal, the right being the larger. His tongue was very tremulous, and his limbs were jerking in their movements. The grasp of his hand was feeble. He was ordered cod-liver oil and hypophosphite of soda, with extra diet. In one month improvement was reported, the inequality of the pupils being less marked and the muscles stronger and steadier. In three months his mind is said to be clear and collected, and his bodily health excellent. On October 4th, 1870, he was discharged recovered.

J. W., aged 66, a waterman from Leeds, was admitted December 14th, 1869. His father had died of paralysis. He himself had always been a sober steady man, but had experienced many misfortunes and much hard work. Six months before his admission he became oblivious, and, as he expressed it, he could not think of things. About the same time he had severe pain in the head. After that had gone on for three months, he gave up his work and began to stroll about without object from place to place. He next began to imagine that the devil had taken possession of him, and under that conviction refused his food. When brought here, he was in a dull and perplexed state of mind; he did not know where he was, nor where he had come from, and was aware that his memory was not to be trusted. He alleged he was unhappy because the devil had got into him, and was afraid to sleep because something came and knocked him about in his dreams. He was much emaciated; his face was pinched and sallow; his pupils were equal, but dilated; he complained of shakings in his limbs, and a feeling of coldness and some loss of strength down the left side. The heart was feeble and distant, and the pulse 90 and compressible. Cod-liver oil in half-ounce doses, with hypophosphite of soda, was ordered, and afterwards ten-minim doses of laudanum twice a day. This treatment was continued for four months, and produced immediate and satisfactory effects; amelioration gradually took place. Depression of spirits and delusions vanished, memory became reliable, and bodily vigour returned. After a severe attack of asthma, he was discharged recovered on August 8th, 1870.

M. S., aged 52, widow, from Halifax, was admitted on May 2nd, 1870. She was stated to have a sister idiotic, and to have been all her life a woman of violent temper and excitable disposition. After much toil in providing for her family, she had been suffering for a month prior to her reception here from sullenness, stupidity, and obstinacy. On admission, she was found reserved and weak-minded; she was unable to remember how many children she had, or to say where she was, and expressed no interest in her own future. Her complexion was exceedingly pale; her pupils were dilated, the right being much larger than the left; her mouth was drawn to the left; and there was general muscular weakness, most marked on the right side. There was pain in the left arm; her articulation was slow and deliberate, but distinct; her tongue was coated with a dirty white fur; and her pulse was feeble. She was ordered cod-liver oil and hypophosphite of soda, which she took for some time without apparent relief. Indeed, she seemed to become more feeble and stupid, sitting for days without moving or speaking. At the end of a month, tincture of opium was added to the treatment, fifteen minims twice a day. Improvement was shortly perceptible. She became more active and animated, shortly engaged in work, conversed intelligently, and was discharged recovered on February 25th, 1871.

These cases illustrate the treatment which has been here found most useful in those cases of brain-wasting which we have been considering.

CLINICAL LECTURE

ON

SPASM OF THE LARYNX.

BY GEORGE JOHNSON, M.D., F.R.C.P.,

Professor of Medicine in King's College; Physician to King's College Hospital.

GENTLEMEN,—We have recently had in the hospital a woman who, at the time of her admission, presented symptoms which a careless observer might have supposed to indicate the existence of laryngitis. H. W., aged 24, unmarried, and having no regular employment, was admitted on the 1st March. She says that a fortnight ago her breathing suddenly became noisy and difficult, and her voice feeble; these symptoms continued until the time of her admission. I saw her in the laryngoscope-room before her admission. She was breathing hurriedly, about thirty times in a minute; both inspiration and expiration were attended with loud stridor; her voice was feeble and whispering. The fact that the breathing was hurried indicated that the laryngeal symptoms were nervous, and not the result of organic disease. When structural disease within the larynx impedes the entrance of air, the respiration is slow and laborious as well as stridulous. With the aid of the laryngeal mirror, I immediately got a good view of her larynx, which I found free from redness, swelling, or other structural change; but I saw that by an irregular action of the muscles the glottis was partially closed during inspiration; hence arose the laryngeal stridor. She told us that on several occasions during the last seven years she had suffered from similar attacks, lasting from one to six weeks. She had also experienced other symptoms of a nervous character. Thus four and a half years ago she had partial loss of power in the left arm, which continued for some weeks, and then gradually passed away. Two years later she had a similar affection of the right leg, for which she was, after some time, admitted here under my care. She gradually regained power in her leg, but even now it is somewhat weaker than the other leg.

From this history it is evident that our patient is of hysterical temperament, and there could be little doubt that her laryngeal symptoms were the result of spasm. In order to test this still further, we put her under the influence of chloroform, and we found, as we anticipated, and as we have before seen in similar cases, that, as soon as the chloroform took effect, the breathing became quiet and entirely free from stridor. The obstruction in the larynx having been the result of muscular spasm, was entirely removed by the relaxing influence of the chloroform. We now sent her into the ward and prescribed ten grains of chloral every six hours. After she had taken a few doses of the medicine, the breathing became quiet and the stridor ceased. After the cessation of the laryngeal spasm and stridor, her voice remained feeble and whispering; she had hysterical aphonia. For this symptom we galvanised the larynx. The first application of galvanism did not restore the voice; after the second sitting the voice returned for a few hours, but again it became a mere whisper; and it was not until after a third and fourth application of the galvanism that the voice was permanently restored to its natural tone and strength.

In some cases of nervous aphonia the galvanic stimulus instantly restores the voice. The day on which this patient was admitted a young woman applied to us on account of loss of voice, which had continued for six weeks. Seeing that her larynx was quite healthy, we applied galvanism; she uttered a loud scream, and on the instant her voice was restored.

Now let me remind you that cases of spasm of the larynx arrange themselves in various groups.

1. There are the cases of hysterical laryngismus, of which our patient, H. W., affords a great illustration.
2. We have laryngismus stridulus, or crowing inspiration of children, closely allied to which is the laryngeal spasm, associated with the epileptic cry and convulsion.
3. Laryngeal spasm, the result of pressure on the pneumogastric nerve or its recurrent branch by an aneurism or other tumour within the chest.
4. Lastly, laryngeal spasm may result from direct irritation of the larynx by the presence of a foreign body, by the inhalation of irritating gases or dust, or by inflammation of its mucous membrane. Much of the distress which results from catarrhal laryngitis in persons of nervous

excitable temperament, and especially in children, is a result of laryngeal spasm.

Amongst the remedies for spasm of the larynx, from whatever cause arising, chloral occupies a foremost place. Its operation is similar to that of the vapour of chloroform, but it has the advantage of a much more durable action, so that by regulated doses the patient may be kept continuously under its influence. Chloral is not only the best antidote for the purely spasmodic affections of the larynx, such as hysterical laryngismus, and the laryngismus stridulus of children, but also, combined with other remedies, for the spasm which often complicates and aggravates laryngitis. In cases of inflammatory croup, the combination of chloral with ipecacuanha is most beneficial. As yet I have had no opportunity of giving the chloral in a case of spasm excited by pressure on the pneumogastric nerve, but even in these painful cases it will probably be found useful as a palliative.

The case of aneurism, from which the specimen on the table is taken, occurred before we had learnt the therapeutic value of chloral. J. H., aged 31, a hawker, of intemperate habits, was admitted under my care on June 16th, 1863. About seven weeks before, he first experienced a sensation of stoppage in his throat, and lost his voice. These throat-symptoms continued until the time of his admission. For eight days prior to admission, he had experienced difficulty in swallowing solids. The symptoms on admission were cough, with dyspnoea and loud laryngeal stridor, hoarseness, and difficulty in swallowing solids. On laryngoscopic examination, I found the mucous membrane of the larynx slightly congested, but there was no swelling, the arytenoid cartilages were freely moveable, and the glottis opened wide during inspiration. At the time of the examination the breathing was not stridulous. It was evident from this examination, that the laryngeal symptoms were not the result of laryngitis or of other structural disease within the larynx. Aneurism of the aorta was suspected and carefully sought for; but there was no physical sign of aneurism, no dulness on percussion, no pulsation or abnormal murmur, and the pulse at the two wrists was equal.

On the 18th, two days after his admission, he brought up a few mouthfuls of florid blood.

On the 20th, at 1.15 P.M., he suddenly became faint, and vomited about three quarters of pint of a florid blood. When I saw him at 1.45 P.M., he was still pale and faint, as if from internal hæmorrhage. No more blood had been vomited, but there was dulness on percussion over the stomach, and it seemed probable that the stomach was becoming filled with blood. He continued to sink gradually, and died at 5 P.M. An aneurism of the size of a small orange was found at the back of the transverse portion of the arch of the aorta. The aneurism had opened into the œsophagus, and the stomach was full of blood. The left pneumogastric nerve passed in front of the aneurism, and was somewhat flattened by pressure, while the recurrent branch passed behind the tumour in its course upwards to the larynx. The appearances are well preserved in the preparation before you.

Many years ago, I was asked by a friend to examine the body of a man who died of what was believed to have been acute laryngitis. I found the larynx quite healthy, but in the anterior mediastinum there was a cancerous tumour, which involved the pneumogastric nerves. The laryngeal symptoms had been the result of spasm, and not of inflammation.

Before the introduction of the laryngoscope, it was often difficult and sometimes impossible to distinguish between the various forms of spasm and of structural disease within the larynx; now, with the aid of the mirror, we rarely have either doubt or difficulty in the diagnosis of this important class of diseases.

OBSTETRIC MEMORANDA.

SPONTANEOUS EVOLUTION.

WHEN I first saw the patient in this case (Mrs. M.), she had been in labour for sixteen hours. The pains were recurring regularly and with moderate force; and, on making an examination, I found the child's left hand protruding from the vagina. I saw her a short time afterwards with Dr. Langstaff, and then the entire forearm and arm were visible. We attempted turning, but without success, and concluded that evisceration would be necessary to remove the child's body; when suddenly the breech presented, and in a few moments the woman was delivered. She had not an untoward symptom afterwards. She is thirty years of age, and has already had two children, each of whom was delivered naturally.

PATRICK THOS. LYSTER, L.K.Q.C.P.I.

Athlone, April 26th, 1871.

ON SOME OF THE LESSONS TO BE DERIVED FROM THE PRESENT EPIDEMIC OF SMALL-POX.*

By EDWARD C. SEATON, M.D.,
Senior Medical Inspector to the Privy Council.

THE subject of the prevention of small-pox by vaccination is one of interest to us at all times, but of the utmost interest just now that we are passing through an epidemic of that disease, which is unquestionably the most intense of any that have occurred in my own time and probably in the time of most of those who hear me, and which is trying to the utmost the value of the prophylactic in which we have all been taught to confide. When, notwithstanding all that has been done by the State within the last thirty years to extend and improve the practice of vaccination, and notwithstanding the extension and improvement that have really taken place, we find small-pox so fatally prevalent as it is around us, we cannot be surprised that questions should be raised, if not within the pale of the profession, yet among those who only see and judge things by their superficial aspects, as to the soundness of our faith in that practice. It has been said, and is being said, "It is all very well to boast of the decline in small-pox mortality which, it cannot be denied, has been gradually going on in this country, and to attribute it to the extension of vaccination; but epidemics of small-pox are things which vary in their times of coming, and vary in their intensity. What you thought was the result of your vaccination, was only the absence or mildness of the infection. Now the infection is come, and come with its old virulence, and you are just as badly off as you were thirty years ago." But I need not say that the question is thus altogether wrongly put. What we have to ask ourselves is, not whether epidemics vary in their severity and diffusiveness, which we know they do—not epidemics of small-pox only, but epidemics of all kinds, scarlet fever, measles, cholera—but what, in reference to this intense small-pox epidemic, has been the relative position of the vaccinated and of the unvaccinated. Has there been anything at all at variance with what in seventy years' experience has always before been seen—that, among persons directly exposed to the infection of the disease, escape from the influence of that infection has been the rule among the vaccinated, and the exception—the rare exception—among the unvaccinated? On this point I shall hope to hear, by-and-bye, the experience of my friends around me who have had much to do with the epidemic. All the facts that have been brought under my own notice hitherto have been entirely in accordance with our former experience, whether as regards the immunity from attack which the large majority of the vaccinated have enjoyed, or as regards the striking manner in which the disease has, as a rule, been modified in those of the vaccinated whom it has not altogether spared. It is quite true that, from the intensity of the epidemic, a more than usual proportion of the vaccinated who have been attacked have died, just as, under the same intense epidemic influence, a more than usual proportion of unvaccinated cases have died. You will recollect that, in the ordinary experience of the Small-pox Hospital at Highgate, less than 7 per cent. of their vaccinated patients die (I am making no distinction now between the kinds and qualities of vaccination, but I take the average of the whole, however the work of vaccination may have been done), while of the unvaccinated they lose 35 per cent. During the present epidemic, the proportion of deaths to attacks among the vaccinated has mounted from below 7 to fully 9 per cent.; but then the rate of deaths among the unvaccinated has mounted from 35 to 49 per cent. I had occasion three years ago to call attention to a similar fact as regards the epidemic of 1863, when the mortality of the vaccinated in the hospital rose to nearly 10 per cent. and of the unvaccinated from 35 to 47 per cent.; and I made these observations, which hold good, in my opinion, now. "The difference [*i.e.*, the difference between the death-rate of 7 and of 9 per cent.] was due, not to falling off in the prophylactic power of vaccination, but to the greater intensity of the variolous influence. This varying intensity of epidemic influence must be well kept in mind. From overlooking it, the most croneous conclusions are sometimes drawn as to the decadence of the protection of vaccination. Any time the last fifty years that an unusually severe epidemic has occurred, there have been those who have asserted that vaccination was wearing out. It was said as much fifty years ago (in the epidemic of 1818-19) as now. Yet the records of the Small-pox Hospital for 1825 teach the same lesson as the records for 1863" [and now let me add for 1870]; "in 1825 the epidemic

being, as Dr. Gregory stated, unusually malignant; the mortality in the hospital of post-vaccinal cases amounted to 8 per cent., and the mortality of the natural disease correspondingly rose to 41 per cent." In the early experience of the Small-pox Asylum at Hampstead, the mortality both among vaccinated and unvaccinated strikingly corresponded with what Mr. Marson had observed at the Small-pox Hospital; viz., above 9 per cent. of deaths among the vaccinated, and 46 per cent. among the unvaccinated. Later on, more cases were admitted of a less malignant type; so that, if we take the results of all the Asylums up to the end of February, we find that, while the percentage of mortality to attacks among the vaccinated has scarcely amounted to 7, or a very little more than the ordinary average mortality of the Small-pox Hospital, the mortality among the unvaccinated has amounted to above 40 per cent. And in Liverpool, as in London, while the epidemic influence has manifested itself in the rate of mortality to attacks, both among the vaccinated and unvaccinated, the *relative position* of the two classes has remained the same.

But when I say that vaccination occupies entirely the same position now as a prophylactic as it did, it seems to me very important that we should consider, before going further, what that position is. I think this of the more consequence, because there is nothing more injurious in the long run to a case than to overstate it; and because, in the very interesting discussion which is now going on in the Surgical Society of Ireland—a country thirty years ago among the worst, and now among the best, vaccinated in Europe—in which many distinguished men are taking part, I am doubtful whether too much is not being claimed for vaccination: I mean for a single infantile vaccination. On the question of revaccination I propose to speak separately by-and-bye. Vaccination, I think we shall all allow, does not, however well performed, confer on every individual submitted to its influence complete immunity against small-pox infection; but it does confer complete exemption on the vast majority of such persons. In those not wholly exempted from small-pox by vaccination, the disease is usually modified and controlled by it. The degree of protection, however, which vaccination affords, depends largely on the way in which the vaccination has been done; so that, while persons who have gone through the process imperfectly may either remain unprotected altogether, or acquire a protection more or less good according to the degree of imperfection of their vaccination, those who have been vaccinated in the most complete way, though it may not be denied that some of them may hereafter contract the disease, need have no more fear of having it in a fatal or disfiguring form than a person who has already had small-pox. But even the most modified form of small-pox is an infliction which all would be glad to escape. Hence, while a repetition of vaccination is a necessity for the imperfectly vaccinated, it is an important additional protection even to the best vaccinated. In brief, a single infantile vaccination, though an invaluable, is not to all a perfect protection; but, by careful revaccination, the protection may be made all but absolutely perfect. The unabated confidence of the profession in vaccination has been recently expressed by the College of Physicians of England, and by the Académie de Médecine in Paris; and you yourselves will, I am sure, proclaim to-night with one accord your assent to the statement—recently put forth by the Medical Officer of the Privy Council—that, after seventy years' experience of vaccination, educated medical practitioners of every country of the world are practically unanimous in recommending its adoption.

Of course, however, if this view of the value of vaccination be correct, the fatality of the present epidemic in London and in Liverpool, as in some other places in England which were attacked last year, must be taken as evidence either that vaccination has been much neglected in those places, or that the professional work of vaccination has been very imperfectly done. There have, indeed, been sad shortcomings in both respects; and it will be a lesson worth all the price we are paying for it, if we are induced by the present discreditable calamity to put our house in order. And the questions which in this respect I shall have briefly to submit for your consideration are these: (1) To what extent is vaccination really neglected in our population? what are the causes of that neglect? and how may we hope to obviate those causes? (2) What has been amiss in our performance of vaccination? and what is required to make vaccination do all that we believe it to be capable of doing?

Now, in speaking of neglect of vaccination, let us endeavour to arrive at some clear understanding of what we mean. The term neglect is very indefinite; it might mean that half, or a third, or a quarter of the population were unvaccinated; but I think I need scarcely say that, as things have been of late years, it has never meant anything like that. But what I want to put before you is, that an unvaccinated proportion of the population, which is relatively small, may constitute actually so large a number of persons as to be a very great source of danger. Take a town, for instance, of 30,000 inhabitants, and let 5 per cent. only of

* Read at an ordinary meeting of the Metropolitan Counties Branch, April 21st. For the subsequent discussion, see page 486.

them be unvaccinated, and you have at any given moment 1,500 susceptible people. An unvaccinated 5 per cent. of the London population, would give you 160,000 persons—a population larger than that of Bristol and Clifton in 1861. Let us begin from what point we may, we must remember that we can never have all our population vaccinated. We cannot vaccinate children the moment they are born; some time must, of course, be allowed; and if we can reduce the number unprotected to only the recently born, there can be no great danger remaining. But whatever delay takes place beyond the time by which, in each individual case, vaccination can properly be done, is neglect. It was in this sense that the Epidemiological Society presented the question eighteen years ago, at a time when more than half the public primary vaccination in England was not done till the children were more than a year old, and when, consequently, the annual small-pox mortality was more than half as great again as it is now. This is the neglect which constitutes our great danger—the neglect of procrastination; and of this there is, with all our improvements, still a most lamentable and dangerous amount. The neglect which arises from resolute objection is relatively very insignificant in amount, but the number of persons who require the terrors of impending small-pox, or the impulse of a legal obligation, to stir their apathy or overcome their superficial objections, is very far from inconsiderable. Terrors of remote small-pox will not do; they are always ready to chance those. And if these people were let alone, what happened before would happen again; and the unvaccinated would rise to such proportions (not, as now, in particular places, where there have been unusual difficulties or special indifference in carrying out the law, but generally throughout the kingdom) as constantly to invite the localisation of small-pox epidemics, and to furnish ample material for the disease to extend itself. If we would see what the result of the let-alone system is, we have but to cross the sea to Holland, where vaccination is voluntary, and where, by custom, the children under school-age are generally unvaccinated, and many of those above school-age. I hand you a table which I have compiled from information, derived from official sources, supplied me weekly by my excellent friend Dr. Ballot of Rotterdam, showing the frightful prevalence and fatality of small-pox in the principal towns of that country—a mortality which, in proportion to population, reduces to insignificance our mortality in London or in Liverpool.

Week ending		Rotterdam (pop. 121,027).	The Hague (pop. 92,021).	Utrecht (pop. 60,428).	Amsterdam (pop. 274,931).
January 7	.....	30	40	27	5
„ 14	.....	37	95	26	5
„ 21	.....	55	121	33	10
„ 28	.....	54	97	58	12
February 4	.....	62	118	45	22
„ 11	.....	63	98	54	19
„ 18	.....	72	85	46	29
„ 25	.....	98	64	46	38
March 4	.....	88	58	36	35
„ 11	.....	98	57	54	31
„ 18	.....	116	45	35	25
„ 25	.....	96	48	33	54
April 1	.....	116	26	36	47
		985	952	529	332

The mortality from small-pox in London (pop. considerably above 3,200,000) for the same period was 2710.

The mortality, Dr. Ballot tells me, has been chiefly among the poorer children, who have been left unvaccinated through, he says, a sort of puritanism and nonchalance. In the Hague and in Utrecht, the epidemic has apparently culminated; but there is no evidence of this being the case as yet in Rotterdam, while in Amsterdam it is evidently advancing.

It is only since the Act of 1867 began to come into operation, that we have had any means of knowing in England how many of our children whose births are registered are vaccinated or not; for, though there was a system of registration of vaccination provided under the Act of 1853, it so generally failed as to be practically worthless. The Act is too recent, and affects therefore too small a proportion of our population, for me to be able to lay before you its results as affecting the present epidemic. I may mention, however, that in one of the metropolitan parishes in which the Act was earliest applied, I have caused the death-registers to be searched for information which I thought would be interesting to you. In a parliamentary return made in 1864, the parish of St. Luke, Middlesex (population 57,000), stood highest but one in regard to the proportionate mortality from small-pox, for a series of ten years, of its population under five years of age; and this is tantamount to saying that it is a parish in which there had been great neg-

lect of early vaccination. But in this parish, from the beginning of 1868, vaccination has been thoroughly looked after. St. Luke, you are aware, is contiguous to the parish which has suffered the most severely of all during this epidemic, viz., Shoreditch; and it has itself been largely infected; for, irrespective of any cases that might have gone to hospital, 47 deaths from small-pox have been registered from December 1st to April 8th inclusive. Now, on inquiry as to what portion of these deaths had been in children subject to the provisions of our present Act—children between five months and three years of age—I find that there were only four; and I have not yet been able to ascertain whether those four had or had not been born in the parish. But the state of the metropolis generally was widely different from this. It differed, of course, in different districts; but in most districts the number of children brought for vaccination at ages from six months to six years and upwards, as well as the large number of young children that have caught small-pox and succumbed for want of vaccination, attest the extensive neglect. There have died in London of small-pox, from October 1st, 1870, to April 8th, 1871, 1,344 children under five years of age; and when you remember Gregory's and Marson's statement, that the deaths in vaccinated children under fourteen years of age are scarcely noticeable, you see what neglect of vaccination is herein exhibited.

But the experience which we have in St. Luke's, and which I am happy to say we are now having in a large portion of England, justifies me in stating to you that this neglect is of a kind easily remediable—that, with individual exceptions only, it is due to apathy or a mere indefinite unwillingness which yields to the slightest touch of the law; the cases only requiring systematic looking after for the vaccination to be duly effected. Hence we may hope by-and-bye to attain the results which have already, as you are aware, been attained in Scotland, in which country all the children born since the compulsory Act came into operation, *i. e.*, since January 1st, 1864, are duly accounted for, with an insignificant exception. Amendment, however, of some of our provisions will be necessary for securing this full result. One of these is an amendment outside a Vaccination Act, an amendment necessary for other purposes as well, and of the importance of which I am sure you are all convinced—a compulsory registration of births, as in Scotland. The amendments required in the Vaccination Act itself as regards compulsion are these: the good working of the law in unions in which it works is invariably due to there being a paid officer, whose prescribed duty it is to look after things, and see that they are done; now, the Act requires the Guardians to see that they are done, and it permits them to appoint a person for the purpose; but the appointment of such person should be in all unions a matter of obligation. And, again, defaults require to be looked after monthly, as is provided in the Act for Scotland; while our own Act only requires that this should be done every six months. Wherever the Act is now worked properly, it is, in fact, by a system of monthly working—in other words, by doing something in excess of what the Act itself requires.

But, concurrently with these improvements, is there nothing that we can do to remove the objections which are often alleged, and by some seriously entertained, to the practice of vaccination? While we make people do what is right, ought we not also to do something to show them that it is right? These prejudices against vaccination are not of modern growth; they are of the same kind as were raised against small-pox inoculation; they are the very same as were raised against vaccination at its introduction; and, so far from gaining ground, they have within my time very largely diminished: of that I am quite certain, though of course the application of compulsion has brought what remains of them to the fore. In the extensive correspondence which the Epidemiological Society had about twenty years ago with practitioners in England on this subject, it was universally stated that indolence and indifference were the main obstacles to the universal diffusion of vaccination; but two classes of objections to it were also referred to as obstacles of greater or less weight; viz., that it was looked on by some as an insufficient safeguard, and that it was alleged to be the means of introducing other diseases into the system. I do not think the first of these objections, as a popular objection, need detain us long: it belongs rather to a period gone by, when small-pox inoculation was in the memory of the people, and when some of them retained a preference for “the real thing”: but we may not wholly neglect it now, because attempts are systematically made not merely to revive it, but to persuade the people that vaccination is actually no protection whatever, by the agents and lecturers of a league organised to obstruct the law, composed in great part of Morisonians and so-called herbalists, reinforced by some half-dozen persons having, I believe, a medical qualification. Bewildering themselves in a maze of statistical fallacies, these persons even go the length of asserting that vaccination and revaccination are the

means of calling down small-pox. Cases in which small-pox, and even fatal small-pox, has occurred after vaccination, are referred to, and exceptions are treated as though they were laws. Now, as regards the influence that statements of this kind uncontradicted may have on the popular mind, we must not forget the altered state of things since the introduction of vaccination. When the vaccinated constituted a small part of the community, and people saw the comparative security of this class among the ravages which small-pox was making generally around them, it was the wonderful protectiveness of vaccination which would strike their minds; but now that the vaccinated are the great bulk of the community, and that, in fine, the memory of small-pox as it was has almost died away—it is the exceptions which strike. And though I think the sense of the people is not likely to be led much astray in this matter, it is yet important not only that the real truth should be put before them as to the protectiveness of vaccination, but that they should be reminded again and again of what they are being protected from—what small-pox was and what it would be again if we were to relax any of our securities. And I think great credit is due to men like Thorburn of Manchester, Mordey Douglas of Sunderland, Woodward of Worcester, Oliver, Dixon, and others, who have come forward with this purpose. Our supreme duty, indeed, in reference to this objection is so to do our professional work that the protection we give our patients shall *not*, so far as we can control, fail or be insufficient; but besides that, we have a duty of informing the minds of the people—each of us, at all events, within the sphere of his influence—on a matter in which they of course look up to us for guidance. There is one stumbling-block particularly, apt to occur at times of epidemics, which our explanations can make clear: whenever we vaccinate a person who may have been exposed to the infection of small-pox, let us take care to make it clear that we cannot for ten days tell them whether the vaccination, though it may take effect, will be in time to prevent or modify small-pox, and that we can promise nothing till the cow-pox has attained a certain period of its course.

The opponents of vaccination strike upon a prejudice more difficult to handle when they persuade people that vaccination induces ill-health, and is the means of importing disease. There are many excellent persons who are far indeed from entertaining objection to the performance of vaccination, who rather would hold themselves greatly in the wrong were they to leave their children unvaccinated, who are yet more or less in dread of this; and the feelings are worthy of our utmost consideration and respect. The chief ground of the feeling is that they have seen or heard of vaccination being the *point de départ* of various illnesses. Now, without denying at all (for it may be so) that, in a child whose skin is about to give forth, say an eczema, or perhaps an hereditary syphilis, the febrility of vaccination may, like the febrility of teething, hasten the appearance of that affection, I would only illustrate from my own experience the enormous extent in which mere accidental coincidence may be taken for consequence, by referring to cases which I could now count by the score, in which, vaccination having for some accidental reason (as because the child was brought too late, or there was not a good vacciner, or there was perhaps no lymph that had not been long kept) been put off for a single week or fortnight, a latent eruption has in the meanwhile developed itself. Three cases of this kind came recently to my knowledge in different places, in one week only. Now the prejudice of attributing to vaccination all that soon follows it is one that is brought to the fore by the practice (indispensable for our security against small-pox) of early vaccination. When vaccination was habitually delayed till children were nearly or more than a year old, the eruptions of teething used to come before vaccination: now they come after it, and vaccination often gets the blame. And it is noteworthy that the late Dr. Gregory, in treating of vaccination in his system of medicine in 1837, never thought of alluding to this subject at all. My own experience agrees altogether with that of Professor Paget, that latent constitutional eruptions, though they may be, are not often, evolved by vaccination. The only real risks that I know of that are worth consideration in regard to vaccination are the risk of erysipelas supervening and the possibility of invaccinating syphilis from a syphilitic vacciner by the incautious introduction of blood along with the lymph. And what, practically, do these risks amount to? The one is of very rare occurrence, and traceable to causes independent of the vaccination itself; the other, so rare and only possible under such exceptional conditions, that its possibility has only within the last few years been accepted, and that vaccinators on the largest scale have passed through long lives without having even met with a case. You know that every experiment directly made with the purpose of inducing syphilis by vaccination has failed, even though no pains were taken to prevent the admixture of blood. These small possibilities of accident are all, then, that can be put against the overwhelming benefits of a practice which, with all the imperfection with which it may have been carried out, has reduced the annual death-rate of England from the three thousand

per million of population, which unprejudiced observers like Blane and Lettsom assigned it at the end of last century, to a death-rate below two hundred per million.

The best mode of meeting these prejudices consists, in my opinion, in patient explanations, in the most careful selection of vaccinifers, and making the parent see that there is such care in selection; in carefulness to postpone vaccination wherever the health appears in any way unsound, and in thorough and unflinching investigation of any allegation of mischief. Something may sometimes be gained by allowing a parent her own choice of vacciner where such a choice is unobjectionable; though it is remarkable, as I think you will agree with me, how very often the choice thus made is not a good one. The argument which seems to me the most forcible is, that we are doing for their children what we do for our own children, and that we shall do it with just as much care. The declamations against vaccination, which find what little help they get in these mistaken interpretations of natural illnesses, or in these rare possibilities of harm—the allegations of wholesale blood-poisoning, and I know not what—will be borne down in the end by the diffusion of sound knowledge, a work in which the Government and the schoolmaster, as well as the profession, should be ready to bear their part. I would have an official synopsis of the advantages of vaccination distributed by every registrar with every notice paper which he gives a parent; and vaccination should be a part of the elementary teaching which ought to be given in every school.

It would be a delusion, however, to speak of these prejudices even now as if they were widely operative in preventing the operation of the law wherever its machinery is properly applied. I could take you in England to town after town, and rural district after rural district, in which, notwithstanding that the agitators have been busy, the vaccination of children from the time that machinery was applied is practically complete, and that without any recourse, or with only rare recourse, to the penalties of the law; and in Scotland, all the children born since the beginning of 1864 have been vaccinated, except an insignificant fraction, not of objectors, but of persons who cannot be traced.

And now I come to the questions which also I am able to submit for your consideration, which refer not to the unvaccinated, but to the vaccinated who have contracted small-pox. Besides the 1,344 children under five years of age who perished from that disease in London (October 1st to April 8th), of whom no doubt scarcely any had been timely vaccinated, there were in the same period 865 deaths between the ages of five and twenty, and 985 above the age of twenty; and among the 865 and the 985, and particularly among the latter, a large number no doubt had been vaccinated. We cannot tell how many, for our death-registers do not generally record in cases of small-pox whether there had been vaccination or not; and when they do record it, it is often on such imperfect information that the entries are—I am sorry to say, in a large number of cases—very misleading. But we know, at all events, that many vaccinated have succumbed: and the question then at once arises, “Of what kind had their vaccination been?” We have no means of answering this as regards all the individual patients: but we find by reference to the records of the small-pox hospitals that, of the vaccinated patients admitted into them in whom small-pox was fatal, only an extremely small proportion had been properly vaccinated, and that a death-rate of 7 to 9 per cent. would have been reduced to a death-rate of less than one per cent. by the substitution of good and sufficient for bad and insufficient vaccination. There can be no reason to suppose that it was otherwise with patients outside the hospitals, or that the deaths in vaccinated persons would not have been really very few, if the vaccination in all had been thoroughly done. It is not more than twenty years since Marson presented that memorable paper which fixed thenceforth our standard of vaccination; the large majority of the people above twenty years old would, I presume, have been vaccinated before that period; but even after that, and long after that, we know that our vaccinations fell very generally below his standard. And it is of this that, in my opinion, we are now paying the penalty. The performance of the vaccinations, according to that standard, which is now, I believe, generally if not universally accepted, seems then to me our first duty. But in the state in which we are now, I cannot but regard the revaccination of the adult population of the utmost importance, and its necessity as one of the most valuable lessons which we may derive from this epidemic. What a powerful means we have in the revaccination of adults, not merely for repairing anything which was defective in a first vaccination, but also for extinguishing the susceptibility to small-pox which may re-arise among an uncertain portion even of the well vaccinated, is now a matter of familiar observation. Marson’s experience with regard to his nurses and servants has been confirmed by the experience of all the metropolitan asylums during this epidemic. Not one of their revaccinated inmates or *employés* has suffered; and two or three apparent excep-

tions have but proved the rule, for they were in persons in whom, on one ground or another, revaccination had *not* been done. Revaccination, I need scarcely say, requires that we should bring to its performance all the care and all the pains to ensure success which are given to a primary case; and this is almost tantamount to saying that it ought not to be left to be done at times of epidemics, and when people are under the influence of panics. What I have long endeavoured to urge as essential for complete protection is a thoroughly good vaccination in infancy, as the sheet-anchor, and a careful revaccination after puberty, so conducted as to give evidence that the lymph is absorbed, and repeated, if necessary, till that result is obtained. The revaccination should be done as systematically about sixteen years of age, as the primary vaccination is at six weeks or two months, and with this, when successful to the extent which I have stated, people may rest content.

CATARRHAL INFLAMMATION.*

By H. FRANKLIN PARSONS, M.D., Beckington.

HAVING been asked to contribute a paper to one of our branch meetings, I have thought that I might not altogether waste the time and patience of the members by bringing forward some general remarks upon catarrhal inflammation, with a comparison of the symptoms and effects of this lesion as it affects the various mucous membranes of the body. I am led to choose this subject, partly because catarrh is the commonest of morbid processes, so that even the youngest of us can boast of considerable experience in its treatment. Of the cases attended by me in general practice last year, I find that in more than one-fourth catarrh of one or other organ was the primary lesion, and in more than another eighth more or less of catarrh might be observed as a part or complication of the case; catarrh, therefore, being present in nearly half the cases. Moreover, not only is catarrh the most frequent of morbid processes, but it is one of the most amenable to treatment, even after due allowance has been made for its natural tendency towards recovery; hence it is, I think, quite as worthy the attention of those whose mission it is to cure disease as many maladies which would generally be considered more interesting, but which occur rarely, and when they do occur are beyond our power to cure.

Catarrh is well defined by Niemeyer as "Engorgement of the blood-vessels of a mucous membrane, accompanied by abnormal secretion, swelling, succulence of its tissues, and copious generation of young cells." The distinguishing feature of catarrhal, as compared with common inflammation, is that it tends to cell-multiplication rather than to exudation of fibrin; hence, although we find tough stringy masses of mucus, and swelling of the mucous membrane, in cases of catarrh, we never get the firmly attached false membranes, or chronic indurations which are commonly produced by inflammations of the ordinary fibro-plastic character. The alterations produced by catarrh are better studied in the living than in the dead body, as the elasticity of the mucous membrane often squeezes out the excess of blood from the vessels when the propelling power has ceased; so that we cannot, from the absence of hyperæmia *post mortem*, infer with certainty that there has been none during life. In coryza and catarrhal sore-throat—maladies of which we all, probably, have had experience in our own persons—we notice, first, a redness and swelling of the mucous membrane, the surface of which is covered with clear, glairy, salt-tasted mucus. The swelling of the mucous membrane causes a "stuffy" feeling, as if a foreign body were present, which we attempt to get rid of by blowing our nose, hawking, or making efforts at swallowing. There is also an increased sensitiveness of the mucous membrane; hence irritation, so slight as ordinarily to pass unnoticed, when exerted on the inflamed mucous membrane, produces convulsive reflex actions, as sneezing and coughing; these actions thus appearing, though no doubt fallaciously, to occur without any immediate exciting cause. The part also feels hot. After a few days, the secretion becomes looser, either watery or yellow, from a more copious development of mucus-corpuscles with granular contents, approaching pus-cells in character; the tenderness subsides, and the mucous membrane is seen (easily in the throat) to be less red, but relaxed and with dilated vessels. This condition usually soon passes off, but may remain, forming chronic catarrh; the redness assuming a brownish hue from deposition of pigment, and the discharge becoming profuse and puriform. Where, as in the mouth and pharynx, there are follicular glands, catarrh is apt to extend into them, causing an increased production of epithelial cells, which, being shed in sufficient quantity to plug the tubes, act as foreign bodies, and cause small round ulcers. The catarrhal process is the same in other

organs, but, of course, the symptoms produced by it vary according to the functions of the organ affected. Similar redness, swelling, and mucous or muco-purulent secretion may be seen on the conjunctiva, and on the mucous coats of the rectum and vagina, by means of the speculum, or when the organs are prolapsed; and similar appearances are recorded by Dr. Beaumont as having been seen during an attack of acute indigestion in the stomach of Alexis St. Martin—than whom it would be difficult to find a better example of a man who had fame thrust upon him. When the catarrh is intense, and the inflamed surface large, as the lining membrane of the air-tubes, stomach, or intestines, there is fever. This is ushered in by shiverings, which are often repeated throughout the acute stage, so that the fever has a remittent character, occasionally becoming very high, especially in acute bronchitis and gastro-intestinal catarrh in children. The same uneasy stuffy feeling, before spoken of, is present elsewhere: in bronchial catarrh, as a tickling just above the sternum, or a sense of oppression about its centre; in gastric catarrh, as nausea or a feeling of weight and fulness, or even pain in the epigastrium; in catarrh of the intestines, as a constant feeling as if a motion were about to pass, and needed an effort of the will to restrain it—which feeling, when the lower bowel is affected, is especially severe, constituting tenesmus; in vesical catarrh, as a constant desire to pass urine. Acute pain, however, is not usually a prominent symptom of catarrh.

Hyperæsthesia of the inflamed surface occurs elsewhere as well as in the nose; hence sources of irritation, so slight as ordinarily to pass unnoticed, suffice to give rise to reflex contractions of the muscles by which a viscus is emptied, when the mucous membrane lining it is affected with catarrh. Thus, when the air-passages are affected, we have cough; when the stomach, vomiting; when the intestines, diarrhoea; when the bladder, inability to retain more than a small quantity of urine; when the uterus, bearing-down pains. It is worthy of remark that, although catarrh increases the sensitiveness to pain, yet when an organ of special sense is affected, its special endowments are impaired or lost. Thus, aural catarrh causes deafness; catarrhal ophthalmia, weakness of sight, with chromatic aberration, due to the film of mucus on the cornea; coryza prevents the appreciation of odours and of those sensations midway between taste and smell, termed savours, which take an important place among the pleasures of the table; while patients with a foul tongue (*i.e.*, one affected with catarrh), complain that they can taste nothing that they eat.

The secretion—at first mucous, afterwards generally muco-purulent—forms the sputa coughed up in bronchitis, and the leucorrhœal discharge in catarrh of the uterus and vagina; in catarrh of the stomach and bladder, being mixed with the normal contents of those viscera, it induces in them putrefactive changes: causing, in the first case, putrid eructations and evacuations; in the other, ammoniacal ropy urine, with phosphatic sediment, owing to decomposition of the urea into carbonate of ammonia. In catarrhal diarrhoea the mucus is voided more or less mixed with faeces, and often with a little blood, and is described by anxious mothers as "slime and corruption." It is to be borne in mind that a perfectly healthy mucous membrane does not secrete mucus. The swelling of the mucous membrane, together with the mucus on its surface, produce a narrowing of the canal which the membrane lines; this narrowing, although in the larger passages merely producing slight inconvenience, in the smaller tubes may suspend the function of the organ, or even, as in the case of laryngitis or capillary bronchitis, endanger life. Thus a common cause of deafness is catarrh, extending from the pharynx up the Eustachian tube to the tympanum, and preventing the communication between that cavity and the outer air, which is necessary for hearing; while the commonest form of jaundice—that occurring, together with gastric catarrh, to form what is popularly termed a "bilious attack"—is to be attributed, not so much to congestion of the liver, as to catarrh extending from the duodenum up the narrow ductus choledochus, the channel of which being occluded, retention of bile ensues. While on this subject, allow me to notice what appears to me the probable solution of the much debated question of the action of mercury on the liver. On the one hand, it is clearly proved by the experiments of Dr. Hughes Bennett and the Committee of the Association, that the administration of mercury to healthy dogs has no effect in increasing the flow of bile, and therefore it is very unlikely to have any such action on the human frame. On the other hand, every practitioner meets with cases such as I have mentioned above, with jaundice, light-coloured offensive stools, pain or feeling of weight in the epigastrium and right hypochondrium, foul tongue, and loss of appetite, etc., which are cured after taking a few doses of calomel or blue pill; the bile reappearing in the stools, and the jaundice disappearing. Now, in these cases, the jaundice occurs, not because the bile is not formed, but because, being formed and not excreted, it is reabsorbed; hence, if mercury did cause an increased

* Read before the Bath and Bristol Branch.

secretion of bile, it would only aggravate instead of benefiting the case. The beneficial action of mercury, besides its purgative effect, seems to me to be exerted on the mucous membrane of the bile-ducts; as the catarrh is subdued, the swelling subsides, and the pent-up bile overcomes the obstruction and enters the bowel; the accumulation causing its appearance in the *fæces* in even larger quantity than the normal continuous flow. The curative effect of mercury is seen on other mucous membranes affected with catarrh, especially those of the alimentary canal; in conjunction with small doses of opium, it is one of the commonest and most successful prescriptions for catarrhal diarrhoea; it is also often useful in gastric catarrh, and it was formerly thought indispensable in the treatment of bronchitis and laryngitis.

A commonly observed tendency of catarrhal inflammation is for it to attack several tracts of mucous membrane at the same time. Thus a patient whom I lately saw had at the same time catarrhal ophthalmia, bronchial and gastric catarrh, and slight albuminuria, which, as he soon recovered, probably depended on catarrh of the renal tubules. A combination of bronchial and gastric catarrh with some pyrexia of the remittent character before mentioned, forms the very frequent complaint popularly but incorrectly called influenza—a term which should be restricted to the epidemic disorder. Gastric and oral catarrh so frequently coexist that a coated tongue is looked upon as a sign of a foul stomach, which it generally is, although in the commencement of gastric catarrh the tongue is sometimes clean when first seen, becoming white by next day; while the tongue is very foul in cases of catarrh of the mouth, fauces, and pharynx, where the stomach is nearly or quite unaffected. This sympathy between different mucous membranes is to be attributed partly to the inflammation spreading by continuity of texture, and partly to community of cause, whether this be an external irritation or an intrinsic derangement of the system.

The causes of catarrh may be thus classified.—

1. First, and perhaps most frequent, is direct irritation; the most frequent irritants to the conjunctiva and respiratory tract of mucous membrane being cold air, very hot air, and foreign matters, as grit and dust; to the alimentary canal, the common irritant is improper food, either indigestible in quality or excessive in quantity, the undigested residue becoming putrid and acrid.

2. Chilling of the skin, especially from wet feet, seems to cause catarrh apart from the local irritant action of cold, by inducing congestion of the internal parts of the body.

3. Catarrh, as aforesaid, is often propagated from one mucous membrane to another.

4. Many constitutional diseases, as measles, enteric fever, syphilis, and influenza, are accompanied by catarrhal affections of particular mucous membranes, especially the respiratory.

5. A varying amount of catarrh of a part very often accompanies organic disease of that part; the permanent disease acting either as a local irritant, or by inducing congestion; thus chronic gastric catarrh usually accompanies ulcer and cancer of the stomach, and emphysema is often complicated with bronchitis.

Lastly, congestion of an organ from obstruction to the return of blood, causes catarrh; thus we have diarrhoea with portal obstruction, and bronchitis when the pulmonary circulation is impeded by disease of the mitral valve.

Since in a healthy subject catarrh tends to quick recovery when the cause producing it is removed, the persistence of catarrh in a chronic form shows either that the original cause or some other irritant is still in operation, or else that there is a deficiency of reparative power either in the part or in the whole system. The relaxation of tissue and of the blood-vessels produced by repeated attacks of catarrh, is favourable to the development of the chronic form; so, also, is a watery condition of the blood; and especially so that general deficiency of the tissues in plastic power which is termed the scrofulous diathesis. Chronic catarrh, in its turn, is very liable to acute exacerbations.

In the treatment of acute catarrh, it is to be borne in mind that the disease tends to get well of itself, if not prevented by the persistence of the cause; where this cause is still present, but removable, as foreign matter in the eye, or undigested and putrefying food in the *primæ viæ*, our first efforts must be directed to get rid of it, and in every case we must watch that no fresh irritant gains access to the suffering organ. If the inflammation tend to increase, or if it be situated in a part essential to life, it becomes our duty to endeavour to diminish it, for which purpose we often seek to produce a derivation of blood from the affected part by augmenting excretion in some other organ, particularly the skin and bowels. Of antiphlogistics, the local action of cold in the form of ice, where it is applicable, as in acute catarrh of the throat and stomach, is of much benefit in many cases. Certain drugs have also a reputation as antiphlogistics; of these, mercury has been mentioned before; antimony and the neutral salts appear to act favourably by

loosening the secretion, and the same virtue is claimed for the alkalies, which certainly have the power of rendering mucus less viscid when added to it out of the body. In catarrh of the *primæ viæ*, alkalies and antacids are generally of benefit, and the expectorant action of ammonia is probably due to its passing off by the lungs, and acting on the mucus in the bronchial tubes on its way. The irritability of the mucous membrane often needs to be allayed by sedatives; the surest generally being opium. Should the catarrh, instead of passing clean away, become chronic, local astringents are of the greatest use, and among them nitrate of silver, sulphate of zinc, alum, and tannin are the chief. Nitrate of silver is often of marked use in the chronic gastric catarrh accompanying organic disease of the stomach. At the same time, it is to be borne in mind that the fact of a catarrh passing into a chronic state, unless due to persistence of irritation, shows that something is amiss with the constitution; hence our aim must be to improve the general health, and this will usually be best effected by tonics, especially iron; and in the scrofulous, cod-liver oil. Prophylactic treatment against catarrh consists: 1, in avoiding sources of irritation, as cold, errors in diet, etc.; 2, in keeping the body in the highest attainable state of vigour; 3, where it can be borne, in a gradual process of inuring the body to cold, of which process a cold bath every morning, begun in the summer, is the safest, pleasantest, and most efficacious form.

TWO CASES OF HYDROPHOBIA TREATED BY HYDRATE OF CHLORAL.

By HENRY W. T. ELLIS, M.R.C.S.Eng., L.R.C.P.Ed.,
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ON Tuesday, the 18th of this month (April), I was sent for to visit Albert P., aged 7 years, who, three weeks previously, had been bitten in the face by a stray dog, one of the bites involving the inner canthus and conjunctiva of the right eye. I was told that he had complained the day before of being poorly; his parents, however, looked upon the attack as a slight febrile one from cold, and took no further notice than to give him an aperient. His anxious and frightened expression of countenance at once powerfully struck me; and, upon finding that he dreaded the sight of any fluid, and could not be got to swallow it, the fact was quite evident that I had to deal with a case of rabies, this characteristic symptom, denoting an affection of the *œsophageal* branch of the eighth pair, being so well marked. His pulse was quick; the tongue was covered with white fur. He was restless and fidgety, and refused food as well as drink; and, on attempting to make him swallow a little tea, the effort brought on a violent spasmodic constriction of the throat; even the sight of the cup excited agitation and aversion, but he did not complain of much pain in the bitten parts. Knowing the inefficiency of all treatment in this frightful disease, I determined upon trying the hydrate of chloral, at any rate in the hope that it would in a measure control the violence and excitement that might, in the next stage, be expected to follow; and in this I am happy to say I was not disappointed, for it certainly mitigated the symptoms very considerably. The remedy was administered in doses of a teaspoonful of the syrup, diluted with a little water, every two hours, and subsequently every hour. Of course, considerable difficulty was experienced in the effort to swallow; but it is believed that most of it was got into the stomach. In the way of progress, the disease, notwithstanding, went on unchecked. On the second day, the sense of touch was most painfully excited by the slightest application of the finger to the face, even the teaspoon coming into contact with the lip produced a catch in the respiration, showing, I presume, that the recurrent nerve was affected. The pupils became widely dilated; the tongue more thickly coated; there was a continual desire to be walking about, which apparently produced some relief, the lungs evidently not being much oppressed. On the third day, the little sufferer talked almost incessantly, often incoherently, but there was little tendency to violence or vicious impulse. The hydrophobic slaver, thick and tenacious, began to accumulate, and, when it was not got rid of by spitting, occasional vomiting took place, which relieved for a short time. He, however, gradually became weaker and unable to eject it, sinking from apnoea at 4 A.M. on the fourth day after the characteristic symptom was developed.

The other case to which I was called on the following day, was in a little girl, Alice Mary M., aged 5 years, bitten at the same time in various parts of the face and head. The symptoms and treatment were nearly identical; but, on the third day, there was for a short period, at 2 P.M., some violence, controlled, however, entirely by the chloral hydrate, which had been rather neglected. During this time, the poor little creature screamed out loudly, and said that her parents were kill-

ing her; and she required restraint. The saliva then began to collect, and was at times ejected, but soon began to run out of the corner of her mouth. A period of perfect calm then came on, and continued until her death, in my presence, at 7 P.M. the same evening; she sank apparently more from asthenia than from apnoea.

The painful history of both these cases, pointing, as it forcibly does, to an affection of the brain, especially the medulla oblongata, central and spinal nerves, makes it quite clear (at least to my mind, and I devoted much time and attention to both cases) that the agonising sufferings of the subjects of this horrible disease were considerably alleviated by the means employed, and although unsuccessful in warding off a fatal result, it was satisfactory to find that the friends of the poor little sufferers fully appreciated the beneficial effect of the remedy employed.

RUPTURE OF THE UTERUS.

By W. B. KILBURN, Surgeon, West Auckland.

ABOUT 1.30 on the morning of the 15th ultimo, I was summoned to attend Mrs. S., then in labour with her seventh child. On arrival, I found that she had been in labour since 12 P.M. The membranes were ruptured, and the foetal head was so impacted that I was unable to pass my finger between it and the pelvis. In about two hours, the pains began to slacken, and in another hour ceased; they were, however, replaced by a fixed, dull, heavy pain, slightly increased upon pressure, immediately below the umbilicus. There had been no sudden outcry, nor vomiting, except once of a little warm brandy and water which I had just given, or faintness. Apart from the pain, there was no untoward symptom, save a weak and compressible, but quite regular pulse. I administered liquor opii sedativus and brandy. In two hours, finding that adequate relief was not obtained, I determined to deliver by forceps. This was easily accomplished. The placenta was expelled naturally, and there were slight after-pains, but no hæmorrhage, not even as much as there generally is after a natural labour. There was slight faintness after delivery, for which, and the after-pains, I ordered liquor opii sedativus and brandy, with the best effect. I stayed about an hour after delivery, and when I left the patient she was doing very well. In the early part of the afternoon, she had quite recovered from the shock, had taken some light aliment, and passed urine naturally; the ventral pain, also, had quite left her. I was called up about 3 A.M. the next morning to see her, and found that she was again suffering from the ventral pain, but it was much aggravated. I ordered opiates, hot bottles to her feet, and warm applications to the seat of pain. At 8 A.M., there being no relief, hydrate of chloral was administered, without effect; and at 9.30 A.M., she died. (No ergot was given to the patient.)

REMARKS.—This case, I am inclined to think, is not less interesting than some recently narrated, inasmuch as the patient partially recovered, though what caused the sudden recurrence of the pain, I was unable to ascertain. Most of the symptoms of rupture were absent, and those present were only partial. Owing to the ignorance and superstition of the relatives, there was no autopsy, so that I am in the dark as to the *post mortem* appearances. I may here state a few particulars concerning the family history of my patient. Of seven children, there is only one living; four were stillborn, one of which was malformed and putrid; twice she was delivered by forceps. For some months after her first confinement, she was under treatment for spinal disease; she had lateral curvature of the spine, lateral contraction of the pelvis, and her gait was limping. She was short and stout, though always pale and anæmic looking. Her mother also died from rupture of the uterus.

CLINICAL MEMORANDA.

PERITONITIS MERETRICUM.

REFERRING to the paper by Mr. Giles, in the BRITISH MEDICAL JOURNAL of this week, on the association of gonorrhœa with peritonitis, I would venture to suggest that a not uncommon cause of peritonitis among females of that class is found in the prevalence of a practice of interfering with the menstrual discharge just at its inception, or during its course. I have myself on several occasions attended women for ovaritis and peritonitis, resulting, as I believe, from the application of cold to repress, or the introduction of sponge to conceal, the existence of the catamenia. This latter practice I discovered in making a vaginal examination in a case, and finding what certainly was a foreign body. All those cases (the one alluded to especially) were obstinate and slow of recovery.

R. W. EGAN, L.R.C.S. Ireland, L.R.C.P. Edin.

Dublin, April 29th, 1871.

GONORRHŒA AND PERITONITIS.

I HAVE read with much interest the remarks of Mr. G. F. Giles, in last week's JOURNAL, on gonorrhœa and peritonitis. The remarks are of considerable practical importance, but the idea seems to have struck other writers as well as himself. I notice in Dr. West's book on *Diseases of Women*, published in 1858, that, speaking of acute uterine inflammation, he says: "I have seen it come on with great severity in the course of gonorrhœa; the tendency, indeed, of inflammation of the uterine mucous membrane to extend along the Fallopian tubes and attack the peritoneum, is much stronger than to affect the substance of the organ." From this extract it would appear that Dr. West was familiar with the fact that gonorrhœa in the female might produce peritonitis. It is an additional evidence of the correctness of Mr. Giles's observations.

NELSON DOBSON, F.R.C.S.

Clifton, May 2nd, 1871.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE XI.—Monday, March 13th.

IN the Rhynchocyon and Macroscelides (Elephant Shrews), the front teeth, both incisor and canine, are very small. In the Rhynchocyon, there are no incisors in the upper jaw in the adult animal; in the young, three small incisors are present, but they disappear. In the lower jaw, there are three incisors on each side, with a gap in the centre. The molars have four pointed cusps, generally with an indication of a ridge connecting the two anterior and the two posterior cusps.

The Tupiidae, inhabiting the south of Africa, are very like squirrels in form; they live in trees, and are mostly insectivorous. Their molar teeth have the **W**-pattern. They have large upper incisors, like Shrews; the lower incisors are long and procumbent.

An extremely aberrant form of tooth is found in the Galeopithecus, an animal of which there are only two species, inhabiting some parts of South-Eastern Asia. The Galeopithecus is rather larger than a Cat, and has a sort of parachute on each side, which it uses in passing from one tree to another. It has sometimes been inappropriately called the "flying Lemur"; it has also been placed among the Chiroptera, but wrongly, because the wings of Bats are formed on an entirely different plan. Not much is known as to the food of the animal; it has been described both as insectivorous and as frugivorous. In the upper jaw, there is a large vacant space in front. Beyond this are two curious teeth; one a single-rooted tooth with three pointed cusps, and the other a compressed tooth with two roots and many cusps; both these are usually reckoned as incisors. Next comes a tooth in the position of the canine, much resembling the second incisor. The molar teeth have pointed cusps, and show a kind of modification of the **W**-pattern. In the lower jaw, there are on each side three incisors; the first two project forward, and are single-rooted, and their crowns are pectinated or comb-like, being widened at the neck, and divided by deep grooves into a number of denticles; of these denticles there are generally seven or eight in the first incisor and ten in the second. The pulp-cavity sends a branch to each denticle. It is very difficult to give the reason of this arrangement; something approaching it is seen in the Lemurs. The third lower incisor is merely notched. There are a canine, two præmolars, and three multicuspid molars, presenting an approach to the **W**-pattern.

Chiroptera form a well defined order; they approach Insectivora nearer than any other animals in the structure of their teeth, being mostly insect-feeders. Nearly all have many teeth; and the canines are in all well developed and functional, even where the incisors are large; in most, the incisors are comparatively small. The molars have a greater or less number of sharp cusps.

The order is divided into two sections or suborders—the Insect-eating and the Fruit-eating Bats. The Insectivorous Bats are further subdivided, according to the character of the nose.

Of the smooth-faced Bats, the common English Bat (*Vespertilio*) may be taken as the type. In the upper jaw, on each side, are two very small incisors; these are succeeded by a space, after which comes a very large and long canine, with a cingulum. Next to this are two small præmolars, and a large one with three roots and one cusp; there

are three true molars, with the **W**-pattern very well marked. The lower jaw has three trefoil incisors, a large canine, three præmolars increasing in size from the first to the third, and three true molars with the **W**-pattern and longer cusps than those of the Insectivora. The milk-teeth are shed very soon after birth; at birth, they are only connected with the gum, and consist of two incisors, a canine, and two molars on each side above and below. The presence of only two milk-molars renders it somewhat difficult to determine the true position of the tooth above referred to as the third præmolar; but the presence of four true molars in the Monadelphous Mammalia would be altogether exceptional.

The other smooth-faced Bats have the teeth formed on the same general principle; the incisors are never more than $\frac{2}{3}$; sometimes the incisor formula is reduced to $\frac{1}{1}$.

The leaf-nosed Bats, so called from the leaf-like appendage of the nose, comprehend the Vampires, etc. Most of them have the same dental characters as the other Bats, and the **W**-pattern on the molars. Indeed, with a few exceptions, the molars are formed on the same type in all the Bats. A family of Bats in South America and the West Indies (Rhinophylla) has two incisors on each side above and below, those in the lower jaw being lobed. The canines are large. The upper molars are compressed from side to side, and have one conical cusp and a cingulum. In the lower jaw, the molars are also compressed, but generally have three cusps.

In two other species of Bats in South America (Desmodus and Diphylla) which appear to live on the blood of animals—having been found fixed on the horse and sucking blood—there is a curious modification of the teeth. In the Diphylla, the upper jaw has, on each side, two large incisors with sharp pointed cutting edges. The lower incisors are small. The canines are large. The molar teeth are very rudimentary, there being scarcely any difference between the præmolars and true molars; there are three above and four below, with compressed crowns and rather sharp edges. In the Desmodus, the teeth are very similar; there are an incisor on each side in the upper jaw, large canines, and two simple molars above and three below. In the milk-dentition, the Desmodus has six incisors in the upper jaw, which are replaced by one on each side. The lips of the animal are very thick and extensible, and the stomach is long and tubular.

Of the fruit-eating Bats, the largest is the Pteropus; some are very small. These animals, which were formerly called "flying foxes", are abundant in India, Africa, and Australia, where they are very destructive to fruit in gardens. All have two small incisors on each side above and below; large canines; and molars and præmolars. The formula is probably $i \frac{2}{2}, c \frac{1}{1}, p \frac{2}{2}, m \frac{3}{3}$. The first upper præmolar is very small. The upper molars are compressed laterally, and are divided by a longitudinal groove into an outer and an inner ridge, the outer ridge being generally developed into a cusp. The lower molars also have ridges, but the cusp is less distinct.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

NOTES ON THE MEDICAL TREATMENT OF FIBROUS DISEASE OF THE UTERUS BEYOND SURGICAL INTERFERENCE.

[Continued from page 422 of number for April 22nd.]

MANCHESTER SOUTHERN HOSPITAL FOR WOMEN AND CHILDREN.

DR. THORBURN has no faith in the efficacy of any internal remedy to diminish the actual bulk of a fibroid growth. Where sudden increase, however, takes place, he finds that iodide of potassium—especially in conjunction with ergot—has a powerful influence in restoring the *status quo*. The same is the case with Kreuznach water; and the result would appear to be due to the diminution of intercurrent congestions. A well-made abdominal support, and careful attention to the state of the bowels and general health, will do much to relieve uncomfortable symptoms. Pushing the tumour, when possible, above the pelvic brim, is another valuable indication. Minor degrees of hæmorrhage should not be arrested except by repose and recumbency. A small tampon, with iron or other astringent addition, will often arrest the more severe degrees by promoting coagulation, and must, in very severe cases, be replaced by astringent intrauterine injections, followed by the complete tampon or plug proper.

UNIVERSITY COLLEGE HOSPITAL.

SKIN DEPARTMENT.

CHRONIC SKIN-DISEASES AND THE SYPHILITIC TAIN.

(Under the care of Dr. TILBURY FOX.)

THERE are many instances in which diseases of the skin run a very chronic course in an unexpected manner—that is, in which their chronicity is by no means to be readily accounted for—by reason of the extensiveness or the severity of the local tissue-changes dependent on the coexistence of marked debility, deficient food, malnutrition or cachexia, the gouty or scrofulous diathesis, and the like. Dr. Tilbury Fox believes that in such cases the operation of a syphilitic taint frequently escapes detection. There are two classes in which a syphilitic taint thus leads to unusual chronicity—viz., young children in whom the taint is hereditary, and the middle-aged and the old who have been self-infected. The following case belongs to the former, and was an outpatient at University College Hospital very recently.

J. J. W., aged 13, was brought to the hospital on April 19th by his father, who stated that the boy had been ill all his life—never free from a skin-complaint; and he had been induced to try this hospital, on recommendation, as a forlorn hope. The history of the case was as follows. At birth, the child was "the finest you ever saw"; at three months, his head began to "break out"; and subsequently his face "came out like little boils". The disease spread over the head, and was apparently an eczema infantile. It never disappeared, but was better "off and on". It then appeared in the legs when he was three or four years old; and then it discharged, it being especially bad at night. "It was often like fish-scales, as you may term it, about the legs." At four years old, the boy was admitted into St. George's Hospital, and was there six months, and came out greatly improved under a good diet. Subsequently, he was in the Children's Hospital in Great Ormond Street for half a year, but did not improve. After that, he was at University College Hospital, at the Skin Hospital at Blackfriars, and various dispensaries, but did not derive much benefit from any treatment adopted. The father said that he was always told the disease was a scorbutic affection of the skin, from poorness of blood; but he added that the boy always ate well and fared well, and he could not make it out how it was that he was so affected.

On admission, the boy was thin, and had a care-worn look and a very muddy complexion; and on some part of the face there was distinct pigmentation, especially about the forehead and the side of the cheeks. There was some slight puckering about the mouth. He was fairly nourished. His father declared that he had never been seriously ill, nor had fits nor any lowering illness. On stripping the boy, he was seen—to describe the appearances shortly—to be affected by an eczema in a chronic scaly stage, accompanied by a peculiar dirty hue of skin; thickening and marked induration of the fibrous texture of the skin, affecting various parts of the body, but especially the thighs and legs, continuously over the whole of their outer and front aspects from the groin to the ankle, the arms and forearms from the middle of the former to near the wrist, the forehead and cheeks. There were some small parts of the trunk affected. There was a history of discharge; but the father remarked that "it did not run so much as he had seen some at the Skin Hospital". It was more dry. And this was one of the points which struck one on first observing the boy. There was free scabiness; but the scales were less purulent than one would be led to expect. The thickening of the parts was peculiar, so that it was at first suggested by an American physician that it was like a case of Hebra's prurigo. The dry muddy hue of the whole of the skin, too, was peculiar. There was some amount of anæmia. Itching was occasionally declared to be present. The teeth were irregular; the lateral incisors peg-shaped and ill formed. The glands of the neck and groin were enlarged; and this had existed for years. No history of syphilis could be obtained as existing in any of the members of the family.

REMARKS.—The disease was clearly an eczema in its general features; but it differed from eczema, in that the "discharge-feature" was not marked in proportion to the extensiveness and long lasting of the disease. The boy was certainly not strumous, underfed, or cachectic in the sense of being badly nourished. There were two particular features present which are unusual in eczema—the peculiar pigmentation of the skin, and the leathery, harsh, thick feel of the integuments. There was clearly a peculiar fibroid deposit in the derma. There were also an earthy hue and a pinched aspect of the face, and pegged and notched teeth. The disease was rapidly cured by bichloride of mercury and iodide of potassium, when all else failed. Dr. Fox, by a method of exclusion, arrived at the conclusion that the disease was eczema occurring in a syphilitised subject; and he states his conviction that the case illustrates a not unusual state of things—viz., chronicity of a common skin-affection dependent upon the existence of a syphilitic taint.

LIVERPOOL ROYAL INFIRMARY.

NOTES OF CASES ILLUSTRATING THE ANTISEPTIC SYSTEM OF TREATMENT IN SURGERY.

(Communicated by Dr. W. JACKSON CLEAVER, House-Surgeon.)

THE following four cases are illustrative of the antiseptic treatment in a wound opening into the knee-joint, an abscess, an operation for hernia, and a wound leading into the cavity of the abdomen.

CASE I.—T. W., aged 19, a sailor, was admitted on January 28th, suffering from a loose cartilage in the knee-joint. On February 2nd, Mr. Bickersteth excised it by first fixing it in position on the outside of the joint, and cutting down upon it under a stream of carbolic acid lotion (1 in 40 of water). As soon as the cartilage was pushed out, a rag dipped in the carbolic lotion was slipped over the wound until the suture was ready; then, under a stream of carbolic lotion, the wound was closed with five stitches. The sutures were the same as those used by Mr. Lister; viz., silk soaked in a solution of beeswax and carbolic acid. The dressing was composed, first, of a piece of protective oiled silk; secondly, a small piece of lint soaked in carbolic acid and olive-oil (1 in 10); and over all two layers of lac-plaster, well overlapping. The leg was placed on a straight back splint; the dressings were removed on the second day after operation, care being taken during the removal to have a stream of carbolic lotion constantly playing on the wound. The same kind of dressing was applied as before, and was not disturbed for three days. At the end of this time, the wound was found to be perfectly healed. The stitches were then taken out under a stream of the lotion; protective oiled silk and lac-plaster were reapplied, and left undisturbed for a week. On the following day, viz., the thirteenth after operation, the patient was discharged well. No constitutional symptoms of any sort occurred; and only after the first dressing, when a drop or two of serum stained the lint, was any discharge found upon the wound or the dressings. It should be mentioned that this is the second time the patient has undergone the same operation with a similar result.

CASE II.—A. B., a married woman, aged 28, was admitted under the care of Mr. Hakes on January 25th, suffering from a large abscess of the buttock, extending round the hip-joint. She had been confined three weeks previously, and had first felt a sharp pain in her hip-joint a week after confinement, succeeded by a swelling over the joint, which increased very rapidly. The patient was, when admitted, in a hectic condition and very weak, with a pulse of 130.

On the 26th, the skin over the abscess being well rubbed with a solution of carbolic acid and olive-oil (1 in 5), and a double layer of lint, about eight inches square, soaked in the same solution, being held in readiness, a knife, the edges of which were smeared with the oil, was introduced, and an incision three inches in length was made. As the fluid escaped, the lint was placed over the wound, and, under its protection, the abscess was, as far as possible, emptied of its contents, a little over two pints of pus escaping. The dressing consisted of a piece of lint soaked in carbolic acid and oil (1 in 10) over the wound, and two layers of lac-plaster overlapping the lint by three inches in each direction, the whole being secured with strapping and a flannel bandage.

January 27th. There was a considerable discharge upon the bandages, but the patient expressed himself much relieved and felt no pain; pulse 104. The dressing consisted of the same materials as on the preceding day.

January 28th. The discharge was not so great, consisting of about an ounce; pulse 96. The wound was dressed as before.

January 29th. The discharge only just stained the lint over the wound; pulse 92. The dressing was the same as before, with the addition of a small piece of oiled silk next the wound.

January 30th. A minim or two of discharge appeared. The wound was cicatrising; pulse 90. The oiled lint was discontinued; the oiled silk being left, covered by lac-plaster.

January 31st. There was no discharge; the wound was healing rapidly; pulse 84. The oiled silk and lac-plaster were reapplied.

February 2nd. The wound was entirely cicatrised; pulse 84. The same dressing as before was applied.

February 5th. A piece of lint was strapped on the wound to prevent friction. The patient left her bed.

February 12th. The patient was discharged well.

CASE III.—H. R., aged 46, was admitted on September 21st, 1870, suffering from a strangulated direct inguinal hernia. Herniotomy was performed by Mr. Hakes, the sac being opened. After the bowel was returned, the wound was thoroughly washed out with carbolic lotion (1 in 40), and sponges soaked in the same solution were used during the operation. The edges were brought together with silk sutures dipped

in carbolic acid and beeswax. The dressing consisted of a piece of protective oiled silk covering the wound, two layers of lac-plaster overlapping by several inches in all directions, and secured by strapping, a pad of lint, and a flannel bandage. The patient was ordered twenty drops of tincture of opium. Pulse 120.

September 22nd. The dressings were removed, a stream of carbolic lotion playing on the wound during the removal. The same kind of dressings was repeated. The patient complained of no pain; pulse 104.

September 23rd. The wound was dressed as before. A few minims of serum only appeared on the bandage; the wound was looking very healthy. The bowels were opened naturally; pulse 96.

September 24th. The same dressings were repeated. There was no appearance of any discharge whatever; the wound was completely healed, and the stitches were taken out. Pulse 90.

September 26th. The dressings were removed, and a pad of lint placed over the wound.

October 2nd. The patient was discharged well.

CASE IV.—E. J., aged 9, was admitted under the care of Mr. Bickersteth on March 23rd, suffering from a punctured wound of the abdomen. The patient had fallen from a height of ten feet on to some spiked railings, one of which had punctured his abdomen, two inches to the right and one inch below the umbilicus, causing a wound through which about eighteen inches of small intestine protruded. The wound was of triangular shape, one and a half inch in length. The protruded intestine was carefully washed with warm carbolic lotion (1 in 60) and returned into the abdomen, a stream of lotion being directed on the wound during the operation. The dressing consisted of two layers of lac-plaster, strapping, and a flannel bandage. Five drops of tincture of opium were given, and ordered to be repeated every six hours.

March 24th. Pulse 128. The patient slept well; he took small quantities of milk, and vomited a little undigested meat. He was fed with injections of egg and milk, taking nothing by the mouth save a little milk. The dressings were removed under a stream of carbolic lotion. The wound was filled up with blood-clot. Protective oiled silk was placed over the wound, and a well overlapping piece of lac-plaster, secured with strapping, and a flannel bandage, as before.

March 25th. Pulse 125. The patient slept well. He vomited twice during the day. The wound was looking just the same; it was dressed as before. The injections and tincture of opium were continued.

March 26th. Pulse 98. The boy did not complain of pain. The wound was dressed in the same manner. The injections and tincture of opium were continued.

March 27th. Pulse 72; tongue clean and moist. The patient took some tea and toast for breakfast. The tincture of opium was discontinued. The wound was cicatrising; it was dressed as before.

March 28th. Pulse 70. A minim or two of serous discharge appeared at the surface of the wound. The patient was taking light nourishment. The wound was dressed as before. The injections were discontinued.

March 29th. Pulse 68. The bowels were opened naturally. The wound was healing rapidly; it was dressed as before.

April 14th. The boy was discharged, with the wound quite healed.

RICHMOND SURGICAL HOSPITAL, DUBLIN.

CASES OF HARE-LIP.

(Under the care of Mr. STOKES.)

FOR the report of the following cases we are indebted to Mr. AGMON VESEY.

CASE I.—*Single Hare-Lip: Mr. Stokes's Operation: Recovery.*—Janc Graham, aged eight months, was admitted into the hospital on the 22nd August, 1870, suffering from hare-lip, the fissure being on the left side. There was no cleft in the palate. The child was in excellent health. Mr. Stokes would have preferred deferring the operation until the patient was somewhat older; but, as the parents were most anxious to have the deformity remedied at once, he performed the operation as described by him in the *Dublin Quarterly Journal* for August 1870, on the 25th August in that year.

Very little blood was lost during the operation, as Nunneley's forceps were applied at each angle of the mouth. Two needles were inserted, and the flaps approximated with the figure-of-8 suture. At the red border of the lip the edges were retained by five entomologist's $\frac{1}{4}$ -pins. Seventy-two hours after the operation, two of the pins were removed, and on the day following the remaining ones.

On September 19th, the patient left the hospital to-day, quite well, no deformity remaining. The result was most satisfactory.

CASE II.—*Double Hare-Lip, with extreme projection of Premaxillary Bone and Cleft of Hard and Soft Palate: Mr. Stokes's Operation: Per-*

fect Union of the Flaps without Deformity.—Francis M'Donagh, aged sixteen months, was admitted into the hospital under Mr. Stokes's care, on October 4th, 1870, suffering from the above deformities. On October 8th, the patient was operated on after Mr. Stokes's method. The hæmorrhage, as in the former case, was controlled by Nunneley's forceps. During the operation the child became very faint, but was restored by ammonia and draughts containing a few drops of brandy. On October 11th, two of the needles were removed, and on the 12th the remainder. On October 13th, the lower edge of the lip was quite united, and all the remainder, except at one point close to the septum of the nose. This opening, however, eventually completely closed. On the 20th October, all the cut surfaces were firmly united. There was no notch at the border of the lip nor vertical groove in the line of the cicatrices; and the improvement in the child's appearance was more striking than could have been anticipated. It was much to be regretted, therefore, that a fortnight subsequently to the date of the last report the patient became affected with a severe attack of bronchitis, accompanied by frequent convulsive fits. No treatment appeared to have any effect in alleviating her symptoms. She became gradually weaker, and eventually succumbed to the disease.

REPORTS AND ANALYSES

IN

MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

INSTRUMENT FOR COMPRESSING THE FEMORAL ARTERY.

MR. G. C. COLES, Surgeon to the Infirmary for Epilepsy and Paralysis, and Assistant-Surgeon to the Royal South London Ophthalmic Hospital, has devised an instrument for compressing the femoral artery for the treatment, by elastic pressure, of aneurysm or elephantiasis. A model of this apparatus was exhibited at the Annual Museum of the British Medical Association at Leeds in 1869, and also at the Medical Society of London in 1870. It consists of an inclined splint (*vide* engraving), made of either galvanised sheet-iron, zinc, or tin, with a hollow thigh and leg piece, B B. The splint, being hollow and made to fit the limb by successive layers of cotton-wool, retains it in a fixed

fixed, according to the length of the patient's limb, by a screw at M. On each side of the thigh-portion is a T-piece groove, K (in order that the apparatus may be used for either limb), sliding in which is a crescent bent dovetail slotted bar, C, capable of being fixed more or less up and down in these T grooves by a thumbscrew, G. Sliding in this slotted bar is a tapped nut, H, and long screw, D, also capable of being fixed by a thumbscrew, N. The screw D has at its extremity a revolving spiral spring oval-shaped pad, F; and at the junction of the pad from rotating with the screw. By the two contrary movements at C and H, we have the means of commanding the whole of the femoral artery in Scarpa's triangle; so that, should the skin become at all excoriated and tender, we can shift the pressure without disturbing the limb at all. The inclined position of the limb (which is obtained by means of the double-hinged prop, O, sliding in dovetailed projections of the frame, A, and fixed by a spring bolt, G) lessens the force of the arterial current, and at the same time favours the return of the venous blood. Consequently, a less amount of pressure is required to command the artery.

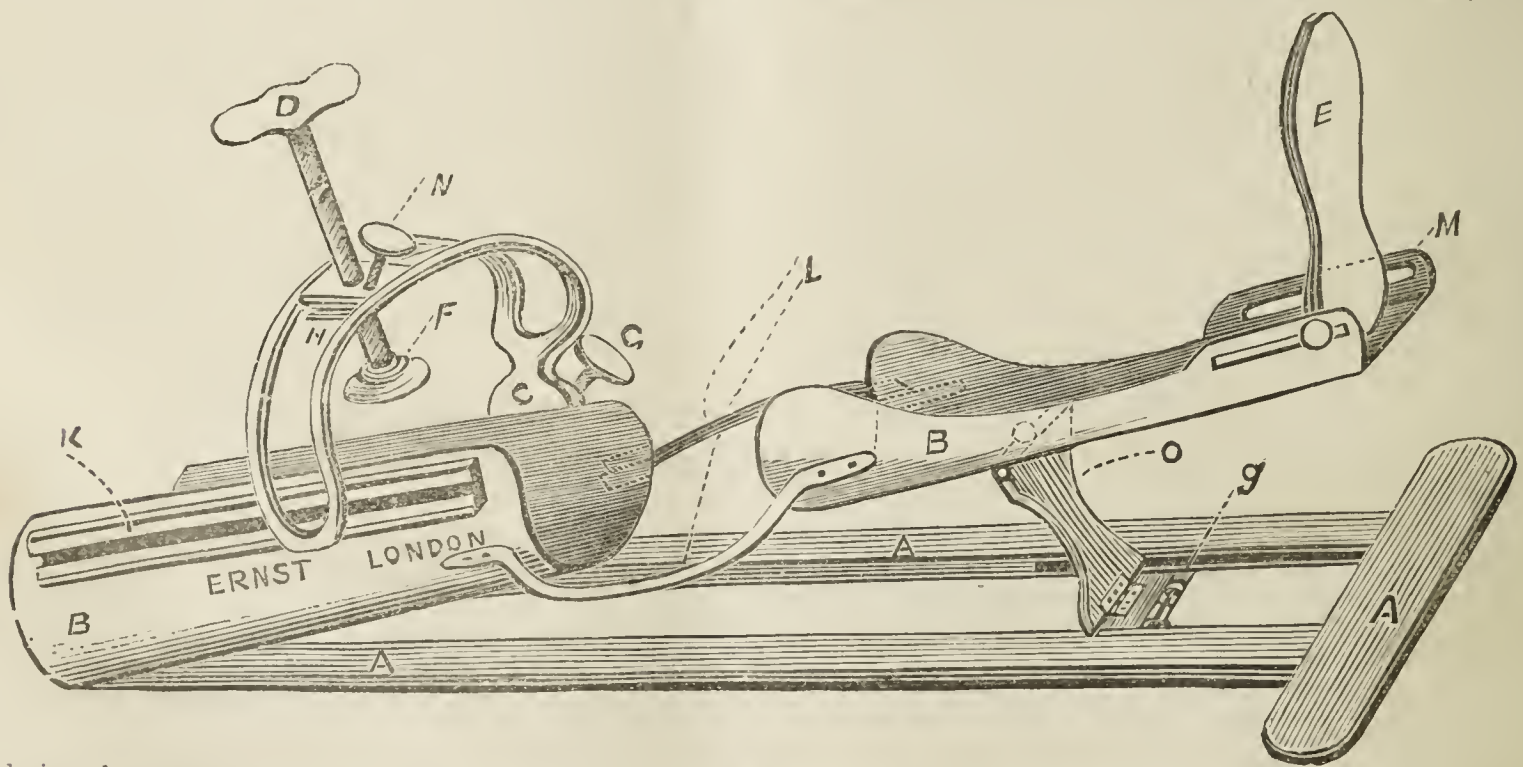
The advantages of this apparatus are the following.

1. From the inclined position of the limb, the arterial current is retarded, and therefore a less amount of pressure is required to control it.
2. The pressure being slight, the skin is not so likely to excoriate; but, if it should, another part of the artery can be compressed immediately, without having to disturb the limb.
3. If the pressure have not had the desired effect, the limb is altogether in a more favourable condition for operation by ligature.

The instrument is made by Ernst, of Charlotte Street, Fitzroy Square, where a model may be seen at any time.

"CONCENTRATED" FLUID MAGNESIA.

THIRTEEN grains of carbonate of magnesia dissolved in a fluid ounce of water by the aid of carbonic acid, constitute the liquor magnesiae carbonatis of the *British Pharmacopœia*. In 100 parts by weight of the liquor, there are, therefore, 2.90 parts of carbonate of magnesia. There is at present in commerce a "concentrated" fluid magnesia prepared by William Bailey. The analysis of Mr. Wanklyn indicates that this *concentrated* magnesia is not stronger than the officinal preparation, or than Dinneford's. According to this analysis of a sample of Bailey's so-called *concentrated* magnesia, the proportion of the carbonate of magnesia is 2.48 per cent., being a little short of the pharmacopœial



position during the pressure. It is interrupted at about four inches above, and the same distance below, the knee-joint; the upper and lower pieces being connected by two semicircular metallic bars, L. This is to allow the measurement being taken around the knee from time to time in cases of popliteal aneurysm, and also to give space to the tumour. The splint is hinged at the extremity of the thigh-piece at B, to a wooden frame, A A A. The whole apparatus is to be secured by this frame to the bottom and sides of the bedstead with bandages. It has also a sliding foot-piece, E, similar to Liston's splint, which is

strength. He furnishes the following details. *Bailey's Concentrated Magnesia*:—Specific gravity at 60 deg. Fahr., 1.0264. In 100 cubic centimètres, there were found 2.44 grammes of carbonate of magnesia, which left on ignition 1.12 grammes of magnesia. *Dinneford's Fluid Magnesia*:—Specific gravity at 60 deg. Fahr., 1.0274. In 100 cubic centimètres, there were 3.14 grammes of solid residue dry at 212 deg. Fahr., which left 1.08 grammes of magnesia on ignition. The 3.14 grammes of residue consisted of carbonate of magnesia, together with a little sulphate.

THE Subscriptions to the Association for the year 1871 became due in advance on January 1st. All which are not already paid, should be forwarded to the General Secretary, Mr. T. Watkin Williams, 13, New Hall Street, Birmingham; or to the Secretaries of Branches.

BRITISH MEDICAL JOURNAL.

SATURDAY, MAY 6TH, 1871.

ECSTASY AND STIGMATISM.

THE case of a Belgian peasant girl, Louise Lateau, is just now serving to gratify that love of the sensational and the marvellous which is one of the discreditable characteristics of the present age. Dr. Lefebvre, Professor of General Pathology and Therapeutics in the University of Louvain, has published the details of the case,* and his narrative forms the basis of a very interesting article in the April number of *Macmillan's Magazine* by Dr. George E. Day, from the general conclusions of which, however, we differ *toto caelo*. Dr. Day commences by saying that the story is so startling, and some of the incidents so incredible and apparently opposed to the ordinary laws of nature, that he must beg his readers to suspend their judgment as to its credibility until they have weighed the evidence on which it rests.

The following is an outline of the case. A peasant girl, born in January 1850, subject to much hardship in early life, her diet having been *plus que frugal*, with little or no education, reading with difficulty and writing very little and badly, having been subject in various ways during her early life to severe strains upon her nervous system, at the age of eight took charge of a crippled old woman; three years later, having received her first communion, she entered the service of a great aunt, aged 78: there, after devoting the day to household duties, she often passed part of the night by the bedside of her relative, who died two years afterwards. During the cholera epidemic of 1866, being then only sixteen years of age, she nursed many of the victims without any aid, staying with them until they died, assisting to lay them in their coffins, and sometimes even to bury them. In the beginning of the year 1867, while supporting herself at home by her needlework, she lost her appetite, became weak and pallid, suffered from severe neuralgic pains, and on several occasions spat blood. It is stated that "for an entire month she took little besides water and the medicines that were prescribed for her!" Soon after this, she became the subject of an entirely new series of phenomena. Blood began to ooze through the skin of various parts of the body—first from the left side of the chest, then from the hands and feet, and lastly from the forehead. Thirteen weeks later, on the 17th July, she began to exhibit the phenomena of ecstasy. From that time until the date of the last report (April 15th, 1870) there has been, every Friday, a regular recurrence of the bleeding stigmata and the ecstatic trance, during which, while insensible to all that is passing around her, she has, as she declares, a distinct vision of the whole scene of the Crucifixion.

Now, it will be seen that there are two distinct series of phenomena to be explained; namely, those of the trance, and the bleeding stigmata. The ecstatic condition of this young woman differs in no essential feature from the many cases of so-called ecstasy which may be found in the records of medicine. The girl's unconsciousness and insensibility to external impressions were subjected to unnecessary and cruel tests. The loss of consciousness is as much a feature of catalepsy and ecstasy as of epilepsy, and, pitiable as is the condition of such a patient, there is nothing surprising or supernatural about it. But what, then, is the explanation of the bleeding stigmata? A contemporary explains them by the influence of the mind and nervous system upon the circulation. "Her meditations on the Crucifixion at last culminated in the flow of blood corresponding to that from the wounded side. Such an effect once produced, and, as the narrative shows, brooded over for an entire

week in silence, was naturally enough followed by the appearance of the other stigmata."

We believe that this explanation involves a physiological impossibility. It is common enough to see hæmorrhage occur beneath the skin, as in cases of scurvy and purpura; but, unless the cuticle be broken or ulcerated, no blood escapes through the skin. Now, in this case we are told that the blood not only escapes through the skin, but through those parts of the skin where the cuticle is thickest and hardest—the palms of the hands and the soles of the feet. Admitting the great influence of the nervous system upon the circulation, we cannot admit the possibility of a mental or nervous influence alone sufficing to perforate the thickened cuticle on the palm or the sole; yet perforated the cuticle must be to explain the bleeding through a circumscribed patch of skin. Suspecting the possibility of deception, Dr. Lefebvre placed a leather glove upon one hand, tying it and sealing it at the wrist, yet, when the glove was removed on the Friday, the blood was there as before.

The following brief narrative of a case which came under the care of Mr. Henry Lee at St. George's Hospital, may suggest to Dr. Lefebvre a better test than the leather glove. An unmarried sempstress, aged 16, was admitted into the hospital on the 22nd April, 1868. On the outside of the right leg, about three inches above the ankle, was a discoloured patch about three inches in length by one and a half inch in width. From this surface she said that every month for two years there had been a discharge of about a tablespoonful of blood. The patch was covered by minute red spots resembling flea-bites. Soon after her admission into the hospital, fresh red spots and effusion of blood were seen at each succeeding visit. Mr. Lee then ordered a sheet of lead to be applied over the bleeding surface, and to be secured by a starch-bandage. On the next visit, when the dressings were removed, there were few spots and little blood, but the sheet of lead was found to be pierced with holes large enough to admit a needle. When asked how this had happened, she was silent, and she was discharged as a convicted impostor on the 13th May.

Now we venture confidently to predict that if Dr. Lefebvre, instead of covering his patient's hand with an easily perforated leather glove, will cover it with a thin sheet of lead, secured by a starched bandage, one of two things will happen—either the bleeding will not occur in the covered hand, or the lead will be found to have been perforated by some sharp instrument from without.

It is stated that on the forehead of the ecstatic girl "the blood is seen to ooze from twelve or fifteen minute points, arranged in a circular form. On examining these points with a magnifying-glass, most of them had a triangular form, as if made by the bites of microscopic leeches; but some were semilunar in shape, and others totally irregular". Here we must irreverently suggest that the microscopic leeches were probably needle-points.

The case of Louise Lateau, then, we believe to be one of ecstasy, the result of early hardships, but especially of severe mental strain, acting upon an ill-educated girl in feeble bodily health. With the ecstatic condition, closely allied as it is to some forms of hysteria, there is associated, as so often happens, a disposition to deceit, and especially to such forms of deceit as may excite the sympathy and surprise of the bystanders. We are told that from the time when the hands began to bleed it was impossible to keep the matter a secret. Crowds assembled weekly around the mother's cottage, and the excitement became so great that the religious authorities felt it their duty to investigate the facts of the case. Thus this unhappy hysterical ecstatic becomes the centre of a wondering and admiring crowd, who are informed, amongst other marvels, that for a month she had taken little more than water and the medicines which were prescribed for her.

Have we not lately displayed our love of the marvellous in the attention bestowed upon the Welsh fasting girl? And was not the investigation which resulted in her death by starvation, rendered almost necessary by the conviction entertained by an ignorant and unreasoning multitude that the possibility of a human being living for several months

* Louise Lateau de Bois d'Haine. Sa Vie.—Ses Extases.—Ses Stigmates. Etude Médicale par le Dr. F. Lefebvre. Louvain: 1870.

without food or drink was a legitimate subject for inquiry? And now we are asked to believe that in the ecstatic visions and bleeding skin of this Belgian hysterical woman there is something opposed to or above the ordinary laws of nature. We protest against such a conclusion, as calculated to bring disgrace upon science and discredit upon theology.

DEATHS FROM ANÆSTHETICS.

THE wide interest of this subject, and a communication which we have received from the Senior Surgeon of the Edinburgh Infirmary with reference to our observations last week, induce us to recur to it. We pointed out last week that, so far as our opinion and reasoning extended, the occurrence of deaths of persons while taking chloroform, or any other anæsthetic, in the practice of a surgeon, should by no means be considered as involving, *à priori*, any kind of blame to him; and that, as a matter of scientific and humanitarian interest, all such facts should be recorded. We had occasion to refer to the case recently reported from the Edinburgh Infirmary in our columns, and in connexion with it to the letter which Dr. Gillespie addressed to us on the subject, characterising it as "the first fatal case which has occurred to myself as hospital surgeon during the last fifteen years." There was obviously a double limitation here. We intimated that we had reason to believe that there had been either four or five cases of death from chloroform in the wards of the Infirmary: Dr. Gillespie, without noticing this statement, now informs us that, in the course of his private practice, he has had a case of death from chloroform-inhalation. This case, he adds, was carefully reported by him in the *Edinburgh Medical Journal*, being first read to the Medico-Chirurgical Society of that city: in that case thirty minims only of chloroform was the quantity used. The Infirmary case is also, we learn, reported in the number of the *Edinburgh Medical Journal* issued to-day. In this case Dr. Gillespie took no active supervision of the chloroform, being busy in adjusting apparatus for reducing the dislocation, while the chloroform was in separate and competent hands. These details we give because Dr. Gillespie feels that, out of the wording of his first letter, and our comment upon it, may arise impressions, of which this frank statement of facts will, we trust, remove the possibility. On the general subject of the record of deaths from chloroform, our correspondent also expresses a doubt, which probably others may share, whether it is desirable to give statistical information regarding deaths from anæsthetics in a medical journal, whose columns fall habitually more or less under public notice, and whose articles are liable to be transferred to the pages of widely read newspapers. It appears, indeed, that this particular article has been reproduced at length in some leading Edinburgh papers. This, it is suggested, is likely to cause an unwholesome dread both of hospitals and of chloroform. We hold, however, an entirely opposite opinion on this matter. A professional bias, perhaps, induces us to entertain the conviction that utter frankness and complete publicity are, in all such matters as this, the most healthy and the wisest course. A dread of chloroform, for example, based upon an actual knowledge of the proportion of deaths which arise from its inhalation, is less likely to be unwholesome than a blind trust, often rudely dispelled, or an exaggerated fear, in which mystery magnifies the actual danger, whatever it may be. It is more wholesome for the patient and for the surgeon: the responsibility is shifted on to the right shoulders. The fear of present pain is so much greater than that of remote danger, that the candidates for anæsthesia under surgical operation are always likely to be rather more than less numerous than we could wish them to be. Increased familiarity with chloroform as an anæsthetic has made us all more enamoured of its manifold blessings—its rapidity of action, convenience of administration, and perfect anæsthetic powers; but, although daily recognising it more and more as a priceless boon to humanity, we have learned also to fear it as more deadly than we at first wished to believe it to be. Its mortality is now estimated, in this country, by our most recent authority, as one in 2500 cases—we

believed it to be six or seven times less fatal. We had also the belief that it was possible, with more or less certainty, to prognosticate the cases in which it might be taken with immunity, and to separate them from the class of cases in which the administration might be expected to be surrounded with greater or less degrees of peril. This belief, too, has been rudely shaken by recent events. It is, we consider, very just to the patient, and moreover very protective to the surgeon, that this should be widely and fully known. The publication of fatal misadventures under anæsthetic influence may give a shock to the public mind, but it would be very hard to show that it is less than a wholesome shock. There is no country in the world, we believe, where anæsthetics are so eagerly sought for trivial operations as they are here. There is certainly no country in which the profound sleep of chloroform is so frequently wooed. There is none where deaths from the inhalation of anæsthetics are so frequent. It is well that those who ask for the boon should know its price. It might be well that the less lethal influences of other anæsthetics than chloroform should be more extensively employed. If it be true, as there seems good reason to believe, that ether is by far less dangerous, and that nitrous oxide gas is almost absolutely safe, the sooner our almost exclusive preference for chloroform is reconsidered the better. Speaking for ourselves, we should be glad to see chloroform absolutely interdicted in dental practice: we should be glad to see nitrous oxide gas introduced into every operating-theatre for use in the limited range (but large number) of rapid procedures for which it is fitted. And we are disposed to ask for a renewed consideration of ether as an anæsthetic, too rapidly and too largely superseded by chloroform by reason of the greater rapidity and convenience of action of the more dangerous agent. These are all matters in which purely professional opinion is concerned; and the experience of benevolence and sagacity of the medical profession are to be implicitly trusted for searching out the solution of the problems contained in these propositions which we submit. But the facts and figures cannot be too widely known, and we are far from thinking that the dread of anæsthetics is likely to become too strong. It is probable that the popular tendency of late years has been to hold their perils too cheaply, to impose an undue personal responsibility on the administrator, and to be too ready to attach blame where none justly lies. This, at least, we have endeavoured to correct.

LYMPHATICS OF THE BRAIN.

A NEW contribution to the history of the often-discussed perivascular lymphatic spaces of the brain has been made by Dr. Camillo Golgi of Pavia, a short notice of whose dissertation appears in Virchow's *Archives* (vol. LI, p. 568). The author holds (with Kölliker and others in opposition to his) that these spaces consist of special canals, which are limited on the outside by the *adventitia*, on the inside by the vascular wall. He has arrived at this opinion from the investigation of the vessels in fresh brain-substance, as well as in specimens hardened in osmic acid and bichromate of potassium. The results were confirmed by injecting solutions of Prussian blue into the subarachnoid space, which not only filled the meningeal perivascular spaces, but made their way into the cortical part of the brain by the side of the vessels and on the *inner* surface of the lymphatic sheaths. The size of these channels was found to vary with the age of the individual, the particular part of the brain, and the fulness of the adjacent blood-vessel. They are, on the average, wider in children than in adults; the former giving an average of .07 millimeter for the whole brain, and the latter .062 millimeter. They are also larger in the cerebral hemispheres than in other parts; the average being (for adults) .099, while in the pons Varolii the average is .038 millimeter. The fulness of the lymphatics also holds a converse relation to that of the adjacent vessels—hence they are wide in anæmic conditions of the brain, small in hyperæmic. (This illustrates the fact, long ago pointed out by Dr. Burrows, of the converse relation of the blood and the cerebro-spinal fluid; anæmic brains being cedematous, hyperæmic being dry.) In extreme atrophy of the brain,

both blood- and lymph-vessels may be enlarged. Extreme enlargement of the perivascular lymphatics produces the *état criblé* of Durard-Fardel. Certain pathological conditions of the lymphatics were also noticed. Calcification was seen in ten cases, always accompanying calcareous degeneration of the vessels. There was always some small amount of hæmatin in the lymphatic spaces; larger quantities were seen in cases where blood seemed to have escaped. Lymph-cells also occurred; and in meningitis the spaces were filled with pus-corpuscles, which the author explains (with Waller, Cohnheim, etc.) as white blood-cells which have passed through the walls of the vessels.

DR. DUDFIELD has been unanimously elected Medical Officer of Health for the parish of Kensington.

THE Treasurer of Guy's Hospital has issued cards for a *conversazione* to be held in the new Wards, on the evening of Wednesday, May 31st.

SIR WILLIAM JENNER gave evidence this week before the Vaccination Committee of the House of Commons, and said that, as the father of six children, he should not consider that he did his duty unless they were all vaccinated.

THE attendant who caused the death of a lunatic at the Surrey Asylum, by turning on the boiling water in the bath, has been sentenced to a month's imprisonment. He received an excellent character for general humanity of conduct.

MR. TURNER, the Treasurer of Guy's Hospital, addresses a letter to the *Times*, in which he argues, cogently enough, that inasmuch as the governors of endowed hospitals are only trustees of the fund, and the beneficial enjoyers are persons whose incomes are certainly below the income-tax level, the funds of such institutions should, by virtue of the conditions of the imposition of that tax, be exempted from its operation.

ST. BARTHOLOMEW'S HOSPITAL.

By the resignation of Mr. Paget, which we last week announced, a vacancy will be created in the staff of surgeons to St. Bartholomew's Hospital. Mr. Paget, we are happy to learn, is quite convalescent, and will undertake active duties as Consulting Surgeon. Mr. Callender, the Senior Assistant-Surgeon, will succeed. Besides the many solid claims to surgical and anatomical distinction which Mr. Callender's published works establish, he has, it will be observed, been this week nominated by the Council of the Royal Society for the Fellowship of that Society—a distinction well earned by his contributions to the *Transactions* of the Society. For the vacancy in the staff of Assistant-Surgeons, which will be caused by his promotion, the two prominent candidates will be Mr. Morrant Baker and Mr. Howard Marsh, both already occupying surgical appointments at the hospital, and well known there for ability and good service to the institution. Mr. Morrant Baker has the senior claim as Warden of the College and Casualty Surgeon.

ST. THOMAS'S HOSPITAL.

THERE will, doubtless, be a formidable array of candidates for the vacant appointments at St. Thomas's Hospital, but some little time will elapse before it is known who are definitely in the field. It is rumoured that the following gentlemen intend to present themselves as candidates: Dr. John Harley, Dr. Thudichum, Dr. Payne, Mr. Wagstaffe, Mr. Anderson, Mr. Henry Arnott, and Mr. Bellamy. It will be seen by our advertising columns of this week, that the authorities now intend to appoint one Assistant-Physician only.

ST. MARY'S HOSPITAL.

By the lapse of time and the operation of the laws of St. Mary's Hospital, which restrict the service of the physicians and surgeons to a term of twenty years, several vacancies will shortly occur in the staff. The retirement of Dr. Tyler Smith is announced this week; and, in a very short time, Dr. Sibson, F.R.S., the Senior Physician, and Mr. Lane, the Senior Surgeon, will also retire. These gentlemen were ap-

pointed to the privileges and duties of full office with beds at the institution of the hospital. During their term of office, and throughout a series of years, they have rendered most important services to the hospital, and to the cause of medical education and medical science. In devoting themselves henceforth exclusively to private professional duties, they will continue to enjoy the honours and earn the rewards due to their distinguished labours. Dr. Handfield Jones will become Senior Physician, and Mr. Spencer Smith, Senior Surgeon. Dr. Broadbent, as the Senior Assistant-Physician, will become Physician with beds, and Mr. Gascoyen will become Surgeon with beds. For the vacancy declared in the office of Physician-Accoucheur, Drs. Meadows, Wiltshire, Edis, and Heywood Smith, are spoken of as candidates.

CEYLON AND OUR QUININE SUPPLY.

FROM information derived through private and reliable sources, we are enabled to state that Ceylon gives fair promise to take rank at no very distant time as one of the chief quinine-producing countries in the world. Although the cinchona plant has been for many years cultivated in the colony, it was not until quite recently believed that the bark afforded an appreciable proportion of quinine, but only cinchonine or other of the less valuable medicinal alkaloids, and consequently little attention was bestowed on its cultivation. It appears, however, that a sample of some bark recently sent to this country for analysis was found to contain a large quantity of the sulphate of quinine. A pound of this bark contained of sulphate of quinine 289 grains, of quinidine 47 grains, and of alkaline cinchonine 14 grains. An ounce of sulphate of quinine was thus obtained from one pound eight ounces and a quarter. As the supply from Peru has greatly diminished, and as India it is said, consumes its own quinine, there is every reason to believe that the cultivation of cinchona will secure some of that attention from cultivators in Ceylon which has hitherto been almost exclusively bestowed on the growth of the coffee-plant. As another cause which may give some impetus to the cultivation of cinchona in Ceylon, it is stated that the red bark is highly praised in Paris for tooth-powders, as it gives them a delicate tinge, and at the same time a bitter flavour.

MEDICAL SOCIETY OF LONDON.

THE annual oration was delivered before this Society by Dr. Cholmeley, at the Hanover Square Rooms, on the evening of Monday, May 1st. Before the orator commenced his address, the President, Dr. Andrew Clark, presented to Mr. J. Wickham Barnes, the retiring Secretary, the Silver Medal of the Society, in recognition of his valuable services during his tenure of office. The orator made special mention of the researches of the Fellows of the Medical Society of London on points of therapeutics, from the earliest years of the Society down to the present time. Alluding to Dr. Jenner's communications to the Society on vaccination, Dr. Cholmeley remarked that, when this subject was discussed before the Society in the early part of the present century, questions arose, just as they do in the present day, as to the time during which the protecting power of vaccination endured; also, as to the possibility of any morbid constitutional taint being conveyed from one person to another in the vaccine lymph. After the oration, the President thanked the Orator in the name of the Society, and encouraged the Fellows to persevere in maintaining for the Society the good ground which it had gained. A *conversazione* was then held. Among the various objects of interest that were placed on the tables, were some beautiful specimens of Japanese enamel work on vases, ewers, plates, etc., sent by Mr. Brudenell Carter, who also demonstrated his new double ophthalmoscope; casts and models of the healthy and diseased structures of the lower animals, shown by Dr. Edwards Crisp; an etching by Mr. Seymour Haden; photographic portraits, exhibited by Mr. S. Walker and Messrs. Barraud and Jerrard; Messrs. Krohne and Sesemann's portable galvanic batteries, and their new galvanic cautery for the removal of vascular growths; Mr. Hawksley's new ophthalmoscopes; Mr. Ross's microscopes; portable surgical and obstetrical bags, shown by Messrs. Arnold; and a most complete exercising couch, brought by Mr. Ernst, who also had a large variety of instruments for

spinal curvatures. Mr. Peter Squire showed preparations of the organic bromides; and Messrs. Young and Postans had some granulated preparations of pepsinc combined with bismuth. A beautiful coloured cast of a vesicle from revaccination was shown by Dr. Brunton. Messrs. Matthews Brothers showed a small and portable lamp-bath for mercurial fumigation.

THE LONDON MEDICAL SOCIETY OF OBSERVATION.

MANY of our readers may recollect the existence of a society which bore the name of the London Medical Society of Observation. The object of its promoters was to encourage the more systematic study of disease than hitherto by the inductive method, which had come to be sorely neglected in this country. The list of members contained the names of Dr. Walshe, Sir William Jenner, Dr. A. P. Stewart, Dr. Parkes, and other of the best clinical observers and teachers in London. The members were accustomed to meet together in a friendly way at their private houses, and to discuss freely the question of the evening. Particular attention was paid to the subject of clinical instruction. Individual members also undertook the investigation of special symptoms. As a result of these meetings, a large amount of valuable material was collected, much of which remains unpublished. Amongst other work done by the society, an excellent volume, entitled *What to Observe at the Bedside*, was prepared by a committee and published for the benefit of students. This work, which has reached a second edition, has been in common use for some years. The results of the society's efforts have had a very beneficial influence on clinical teaching in London, and have led to a more careful and systematic investigation of the symptoms of disease in our hospitals than prevailed before. Although the society had rather a private than a public character, we may still be pardoned if we express our regret that the members have for some years ceased to meet. If its promoters now consider that its usefulness has become somewhat too much narrowed by the formation of the Clinical Society and the Medical Teachers' Association, some of the selected material collected by the society might, we submit, with benefit be allowed to see the light, either in the form of a volume, or as contributions to the journals or medical societies.

HOW EPIDEMICS ARE SPREAD.

SOME time since, we asked for particulars of cases where epidemics which might have been checked at their origin had been allowed to spread through ignorance or wilful neglect. Mr. Herbert Morgan, of Lichfield, vouches for the truth of the following statements, suppressing only the names of persons and places. Eight children, belonging to four families, were attacked with scarlet fever within a few days of each other; some dangerously, one fatally. Every case was distinctly traced to a house in the village where milk and yeast were sold, some of which had been supplied to each of these houses. As soon as Mr. Morgan had ascertained beyond doubt that scarlet fever was at the dairy-house, he wrote to the proprietor, pointing out to him the danger, morally and legally, of selling food and distributing the germs of disease; the next day he heard that the man had refused to sell milk to his usual customers. To obtain all this information and trace the epidemic to its source was a work of great difficulty and delicacy, as the people at the dairy had consulted no medical man, saying that it was only measles that had occurred at their house. Whilst there was a strong suspicion of the real nature of the original cases, and an anxiety to check the spread by warning people not to deal at the shop, it was dangerous and almost libellous ground to tread upon, for fear of spoiling the business of the dairy without just grounds. After several days' work as an amateur detective, Mr. Morgan found where one of the family first attacked had been living in service, and what medical man had attended her away from her home. A letter to him brought the answer that she had undoubtedly had scarlet fever, but he could not learn whether her parents knew what her disease was, as he had only had communication with the mistress. Since the girl returned home, the parents had been selling milk and yeast as usual,

whilst she was in the house desquamating; but it was impossible for him to prove that they *knew* it to be scarlet fever, and so were criminally responsible for selling the germs of the disease in their merchandise.

POISONS SCHEDULES.

THE following are the poisons schedules of a bill at present before the State Legislature of Illinois. The *Chemist's Advocate*, in printing them, observes that the features of the schedule marked in italics are worthy of special remark, as decidedly an improvement upon our own, and considers that no legislation on the sale of poisons which does not include them can be efficient.

"SCHEDULE A.—Aconite and its preparations; arsenic and its preparations; corrosive sublimate; cyanide of potassium; hydrocyanic acid; nux vomica and its preparations; opium and its preparations—*excepting paregoric and all preparations containing two grains or less of opium in one ounce*; strychnia and all poisonous vegetable alkaloids and their salts; essential oil of bitter almonds, *of pennyroyal*, of savine, *of tansy*, and *of rue*.

"SCHEDULE B.—Oxalic acid; *sugar of lead*; *sulphate of zinc*; white precipitate; red precipitate; tartar emetic.

"SCHEDULE C.—Belladonna and its preparations; cantharides and the tincture; chloroform; cotton root and its preparations; *croton oil*; digitalis and its preparations; ergot and its preparations; *henbane and its preparations*; *chloral (hydrate)*; poison hemlock or conium; *all mineral acids*."

Poisons in Schedules A and B are to be "labelled with the name of the article, the word 'poison', and the name and address of the seller"; sales of articles in Schedule A are to be entered in a book kept for that purpose. Provision will be made where necessary in rural districts for licensing persons, other than registered pharmacists, to sell articles in Schedules B and C.

AMMONIA INJECTION FOR SNAKE-BITE.

THE following is published in the *Australian Medical Gazette* as a case of "failure of ammoniacal injection." If this be the evidence of failure, very little more can be needed to establish success; for the most marked features of the case are instant and startling improvement following each injection. The impression which the details are best calculated to leave, is that of regret that the injections were not repeated more frequently as bad symptoms recurred; in previously reported cases, such repetition has been attended with the happiest effect. The clinical evidence on record in favour of ammonia injections in snake-bite seems to us to outweigh the experimental failures of Dr. Fayrer; and we should be glad to learn that some of our associates in India have tested this method in practice.

A man, named James Marshall, was bitten on the middle finger, about 9 A.M., on Saturday, February 11th. A ligature was placed on the finger, and some ammonia applied to the bitten part. The deceased was then taken in a conveyance to the Amherst Hospital, a distance of twelve miles. The injection of liquor ammoniac into the veins was performed four times. Marshall died at 3 A.M. on the 13th, about thirty-eight hours after the first time of injecting liquor ammoniac into the veins. The following is the medical evidence. John Holden Webb, sworn, said: I am house-surgeon to the Amherst Hospital. About twenty minutes to one o'clock on Saturday, the deceased, James Marshall, was brought to the hospital. Deceased pointed to the middle finger of his right hand, and said he had been bitten by a snake. A ligature was tied tightly round the upper part of the finger. I removed the string, and ordered him to be walked about. In about twenty minutes his speech became indistinct. He complained of what he described as a "craving," and was constantly striking his breast over the region of the heart. He then vomited for about five minutes. Afterwards he became pale, and an anxious expression overspread his countenance; his gait was also unsteady. I then dissected bare a vein near the elbow, and injected into it twenty minims of a solution of ammonia, consisting of one part of strong ammonia to two parts of water. About three minutes after this was done, he said he felt all right, and walked about freely, and alone. In half an hour the distressing symptoms returned with greater intensity, and he fell down in the passage where he had been walking. I then laid bare the left arm, and dissected to the basilic vein, and injected twice the quantity of ammoniacal solution which I had used in the right arm. Whilst I was doing this, his head fell on his chest, he became pulseless, cold, and pallid.

In about ten seconds he recovered, and within a minute after the operation, he stood erect, and could walk alone, and talk rationally. From the time of his admission to the hospital up to this time he had complained of double vision. This now left him. All proceeded well until about half-past eight o'clock, when the mischief about the heart returned. I had him walked about, when he became easier. He had some soup, and slept soundly until next morning. He then appeared stupid, and had partial paralysis of the muscles of the tongue and eyes, but no loss of sensation; breathing was stertorous, but normal. He took liquid food through the day, whenever it was offered. He also had ammonia and brandy internally. Towards evening he appeared better. I last saw him at half-past two o'clock on the morning of the 13th. He answered rationally, and said he thought he should be all right tomorrow. I gave him a drink of milk and left him. About seven o'clock it was reported to me that he was dead. The *post mortem* appearances were, externally, no marks of violence, except the two where I had injected the ammonia. The body was well nourished. The muscles on the chest and belly were much redder than usual. The right pleural cavity was filled with dark semi-sanguineous fluid; the lungs much engorged; the heart was fatty on its surface, but healthy in its structure. All the other organs (brain included) were healthy, except the spleen, which contained a hydatid cyst. The blood was unusually fluid. I saw no evidence of inflammation of the veins where they had been injected. The ammoniacal solution was that recommended by Professor Halford. —The jury returned a verdict that the deceased, James Marshall, died from the effects of the bite of a snake.

THE ROYAL SOCIETY.

THE following are the medical candidates selected by the Council of the Royal Society to be recommended for election as Fellows: William Budd, M.D., Clifton; G. W. Callender, F.R.C.S., London; Richard Quain, M.D., London; and John Wood, F.R.C.S., London. Their claims are thus stated in the nomination paper.

William Budd, M.D., Physician; author of the following papers: "On Diseases which affect corresponding parts of the Body in a Symmetrical Manner"; "Researches on Gout"; "The Frog as a Detector of Tetanic Poison"; "Cholera, its cause and prevention"; "Memoranda on Asiatic Cholera, its mode of spreading and its prevention" (3rd edition); "Asiatic Cholera in Bristol in 1866" (BRITISH MEDICAL JOURNAL, 1867); "*Variola Ovina*, Sheep's Small-pox"; "On the Laws of Contagious Diseases, illustrated by an experimental type" (1863); "On Intestinal Fever" (*Lancet*, 1859, a series of papers with continuation in BRITISH MEDICAL JOURNAL, 1861); "Diphtheria—Treatment, Mode of Spreading, and Prevention" (BRITISH MEDICAL JOURNAL, 1861); "Scarlet Fever and its Prevention" (1868); and numerous other publications.

George William Callender, Esq., F.R.C.S.; Lecturer on Anatomy at St. Bartholomew's Hospital School, and Assistant-Surgeon to St. Bartholomew's Hospital; editor of "St. Bartholomew's Hospital Reports"; author of "Observations on the Anatomy of the Thyroid Body in Man" (*Proc. Roy. Soc.* 1867); of a paper "On the Formation and Early Growth of the Bones of the Human Face", published in the *Transactions* of the Society (1869); of a paper "On the Formation of the Subaxial Arches in Man", an account of which is printed in the *Proceedings* of the Royal Society; attached to science, and anxious to promote its progress.

Richard Quain, M.D., Fellow and late Censor of the Royal College of Physicians; author of a paper "On Fatty Degeneration of the Heart", which has exerted a marked influence on certain branches of pathological science, published in the *Transactions* of the Royal Medical and Chirurgical Society; author of numerous Communications published in the *Transactions* of the Pathological Society, of which Society he was President (1869-70); Member and Secretary of the Committee of the General Medical Council (of which Council he is a member) which conducts the preparation of the *British Pharmacopœia*; distinguished as a physician and scientific pathologist; member of the Senate of the University of London.

John Wood, Esq., F.R.C.S.; Examiner in Anatomy at the University of London; author of a paper, published in the *Phil. Transactions*, "Upon certain varieties of the Human Neck and Shoulder Muscles, with their transitional forms and homologues in the Mammalia"; five papers upon "Variations in Human Myology", published in the *Proceedings* of the Royal Society in 1864-68; papers published in the *Journal of Anatomy and Physiology*, "On Muscular Variation in the Human Arm", Nov. 1866; "On the relations of the Aortic Arch and Mediastinum", Nov. 1868; in Todd's *Encyclopædia of Anatomy and Physiology*, the article "Pelvis"; in the *Trans. Pathol. Soc.*, "On the Deve-

lopment of the Arteries producing Abnormalities of the Subclavian and Aorta" (vol. x); "New Theory of the cause of Obliquely Ovate Pelvis" (vol. vii); in the *Trans. Roy. Med.-Chir. Soc.*, vols. xliii, xlvi, and lii, "On a new Operation for the radical cure of Hernia"; "On a case of Transplantation of Skin from the Abdomen to the Arm"; and "On an operation for Fission of the Bladder with Epispadias"; work "On Rupture, Inguinal, Crural, and Umbilical"; the Jacksonian Prize Essay of the Royal College of Surgeons, London, 1861.

MEDICINE IN THE ROYAL SOCIETY.

IN discussing the lists of the Royal Society, a daily contemporary lays great stress upon the large proportion of members of the medical profession who have received the honour of the fellowship. The writer, however, altogether omits to note the fact that the majority of these have been elected for other than professional claims. In fact, the number of medical Fellows who have been elected on the sole ground of eminence in their own profession is exceedingly limited, and, as we have often contended, unduly restricted. Thus, in this estimate, such men as even Sharpey, Huxley, Hooker, Rolleston, Odling, Taylor, Lockhart Clarke, Carpenter, Parker, Flower, and Cobbold, figure as members of the medical profession; and we are proud to claim them as such. But they were elected by reason of other claims—as biologists, botanists, physiologists, chemists, and zoologists. The whole range of biological science was until recently cultivated almost exclusively by medical men; and chemistry and the natural sciences generally have always, we are proud to say, numbered amongst their most successful cultivators a large proportion of medical graduates. Even if we take the greater proportion of practising members of the profession who are members of the Royal Society, it will be found that in most instances the special grounds of election were their successful cultivation of natural sciences, and their valuable contributions to the *Transactions* in those sciences. Even in such of its Fellows as Paget, Savory, Beale, Lister, Busk, Simon, Lankester, Sibson, Burdon Sanderson, De Morgan, Hulke, Charlton Bastian, and others of whom a large and honourable list might be made, the elections were made on the ground of contributions to physiology, histology, and natural history, to botany, zoology—on any ground rather than their medical and surgical claims, which in any case were collateral facts, and in most instances not considered at all. Any classification which describes them, therefore, should take this fully into account. The statement, as it is made—that the medical profession counts 22 per cent. of the Fellows—would produce a very false impression of the amount of recognition which the Royal Society accords to medical and surgical claims as such. If anything, there is reason to complain of this proportion as too scanty. It happens, from the nature of preliminary medical studies, that our profession has in this country mainly contributed to the advance of biological research. This ought certainly not to be interpreted to the disadvantage or discouragement of its intrinsic claims to distinction.

THE CLINICAL SOCIETY.

AT the last meeting of the Society, some curiosity was created by one of those extraordinary hair-bezoars which are occasionally discovered after death in the stomachs of females. It was presented by Dr. Gull; and some peculiar if not probable theories as to the cause of such concretions were elicited. The author of the paper suggested that they might be due to some all but extinct insect which is said to show itself in some of the lower animals. In connexion with this subject, our readers will remember the remarkable case reported in the latter end of 1869 in this JOURNAL, by Dr. Best of Louth; and Dr. Thorowgood calls attention to a similar case, also related in the pages of the JOURNAL, of which the preparation is now in the museum of the Royal Berkshire Hospital. Dr. Greenhow read an interesting paper on a case of Diphtherial Paralysis treated successfully by Faradism. He suggested that the pathology of the affection might be explained by the existence of a neuritis. A very able contribution was presented to the Society from Dr. Henry Thompson, on a case of Diabetes treated by Opium. He concluded that the opium treatment was not

beneficial, and ascribed the improvement to other remedies—to a well regulated diet and to favourable sanitary conditions. We should like to see more of such carefully thought out papers as that of Dr. Thompson read at the Clinical Society.

THE GENERAL MEDICAL COUNCIL.

AT the meeting of the Branch Council for England of the General Council of Medical Education and Registration on April 27th, Dr. Rumsey's resignation was announced. By the advice of Mr. Ouvry, the Branch Council decided, in the case of "Mr. K.", to bring certain matters, involving a charge against him of infamous conduct in a professional respect, before the General Medical Council.

UNIVERSITY OF LONDON.

ON May 9th, at five o'clock, the Convocation of the University of London will meet to nominate a list of three persons to be submitted to the Crown for the selection of a member of the Senate. Dr. Parkes is at the head of the list. His paper is signed more influentially than we remember to have seen any similar paper; but a very favourite and highly accomplished legal candidate has been started against him in Mr. Jacob Waley, who will receive extensive support; and we invite all the medical graduates to send in their undivided votes for Dr. Parkes.

THE SANITARY CONDITION OF BIDEFORD.

THE attention of the Medical Officer of the Privy Council having been drawn to the excessive death-rate from zymotic diseases during the past year, Dr. Thorne Thorne was sent down to inquire into the sanitary condition of Bideford, and his report has just been issued. One of the leading objects of the inquiry was to ascertain the causes of the large prevalence of typhoid fever in the borough. These were found to consist in an almost general excremental pollution of air, soil, and water. Some of the houses are provided with water-closets, others with water-closets in so far only as the term closet applies to them, and communicating with the sewers; others, again, with privy middensteads, shamefully neglected, which not only pollute the air, but are so well understood by the inhabitants to poison the neighbouring wells, that a large number of the population refuse on this ground to use the water on their premises. With regard to the prevalence of scarlet fever, Dr. Thorne points out that there is utter absence of any means for isolating patients, even under the most pressing circumstances. In fact, the text of the report may be summed up in Dr. Thorne's words, that "the town of Bideford is one which stands in special need of every sanitary requisite."

THE SANITARY CONDITION OF APPLIEDORE AND NORTHAM.

THE prevalence of typhoid fever and other zymotic diseases at Appledore and at Northam led to an inquiry being made by Dr. Thorne Thorne, whose report is in our hands. These two small towns are situated in the neighbourhood of Bideford. The sanitary conditions of the former are truly described by Dr. Thorne as deplorable. The system of sewerage, if so it may be called, does not fairly deserve the name of surface-drainage. Out of six hundred houses in the town, more than one hundred are without closet accommodation of any shape, and those which do possess it have rarely properly constructed closets. The privies pour their contents on the foreshore; and for the extent of a mile privy contents, masses of excrement, ashes, and house-refuse, mingled with sewage, lie along the foreshore in immediate proximity to the town, creating an intolerable stench, and left to be washed away by the tide when it rises high enough. The water-supply is chiefly derived from two surface-wells, which must be seriously fouled. Of Northam, Dr. Thorne gives barely a better account, a great part of its water-supply being derived from polluted surface-wells, and its sewerage system totally insufficient. Orchard Hill, an outlying portion of Northam, is no better. Dr. Thorne gives a more hopeful account of Westward Ho, a new seaside resort, which has been converted into a special drainage district, but is not yet in a satisfactory

condition, many of the arrangements being as yet only in a temporary state.

SCIENTIFIC DIFFERENCES.

A GREAT deal has been made of the differences of opinion of medical witnesses in disputed cases of injury for which compensation is claimed by legal processes. We have taken occasion to point out that these differences are in a great measure the residuum of a great mass of agreement. For, in the vast majority of cases, doctors do agree; and such cases are settled by arbitration out of court. It is commonly only the cases which admit of various prognostication, and on which an agreement is not arrived at, that come into court. Under any circumstances, a large proportion of "difficult cases" are cases in which the medical opinion is arrived at by a balance of probabilities rather than of certainties, and by a varying estimate of the uncertain factors in the problem. But how is it with experts not medical, dealing with matters of fact, and employing the simple and unerring processes which physical science supplies? We read in the *Chemical News* of "buyers' analysts" and "sellers' analysts", who always manage to give different results in the examination of the same samples in commerce. Here we are a little puzzled; and if it be possible, as we read, for unconscious bias to add or take away five per cent. of soluble phosphate from a sample, we shall expect to find chemists treating medical difficulties of agreement, in whatever case, with the utmost possible indulgence.

SCOTLAND.

A MAN was fined by the Sheriff of Glasgow a few days ago the sum of £1, with £3 : 13 : 6 expenses, for refusing to allow one of his children to be vaccinated.

THE Summer Session commenced on Tuesday; and if we may judge by the attendance at the classes, there is good promise of a large entry of students.

GLASGOW UNIVERSITY GRADUATION.

OUR Glasgow correspondent writes: The graduation was this year much more of a ceremony than it has been usual heretofore in Glasgow University. We are glad that the change to the new buildings seems to have had this effect, as formerly the performance of the capping was too much akin to the ludicrous. This year the graduands assembled on the 27th, for the purpose of taking the "declaration," and after this was done, Dr. Young delivered a most suggestive address to the graduands. On the 28th, the capping was gone through in the presence of a large and brilliant audience, composed to a considerable extent of the fair sex. A large number of degrees have been conferred during the past year. Twenty-two were advanced from the degree of M.B. to M.D., while three had the degree of M.D. conferred without having previously had the other. Thirty-one took the degrees of M.B. and C.M. conjointly, and thirteen that of M.B. alone; the total of these two numbers, namely, forty-four, representing the number of new graduates this year.

MEMORIAL OF THE LATE SIR J. YOUNG SIMPSON, BART.

THE Duke of Sutherland presided at a meeting of the London Committee held at Stafford House, on Thursday in last week, for the purpose of conferring with members of the Edinburgh Committee regarding the progress of the movement. The Lord Provost and a number of other gentlemen from Edinburgh attended the meeting. Dr. W. S. Playfair who, with Dr. J. Watt Black, acts as London Secretary, and Dr. Alexander Wood of Edinburgh, stated what progress had been already made. It was announced that Dr. Storer of Boston had organised a movement in America, which had been well supported, and would bring in a large amount of subscriptions. It was agreed, on the suggestion of Dr. Priestley, that the movement should be made better known in London.

IRELAND.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE election of Examiners in the Royal College of Surgeons in Ireland was held on May 2nd. There was no contest against any of the outgoing examiners, and the following gentlemen were consequently re-elected:—Dr. Fleming, Consulting Surgeon to Steevens's Hospital; Mr. Stapleton, Surgeon to Jervis Street Hospital; Mr. Richardson, Surgeon to the Adelaide Hospital; Mr. Tafnell, Surgeon to the City of Dublin Hospital; Dr. O'Grady, Surgeon to Mercer's Hospital; Mr. William Stokes, and Dr. John Barker.

VACCINATION AND SMALL-POX.

THE SMALL-POX EPIDEMIC.

THE Metropolitan Counties Branch is to be congratulated on having been the means of bringing before the profession so valuable a paper as that of Dr. Scaton, which is published at page 470. Among the statements made by the author of the paper in proof of the value of vaccination, one of the most striking was the comparison between the great mortality from small-pox in Holland, where vaccination is only tardily carried out, and the much smaller mortality in London under a more perfect system of vaccination. The discussion derived additional value from the presence of Mr. Steele of Liverpool, who attended the meeting for the purpose of giving information as to the small-pox epidemic now prevailing in that town.

VACCINATION AND SMALL-POX.

DR. CORDWENT (Taunton) writes: The blood being representative fluid, and in each animal the sum of its organisation, permit me to ask how human blood can take on the same action as bovine blood?—in other words, is it physiologically possible that lymph from a ruminant, with blood physically and chemically differing from that of the human being, can be reproduced from human blood by inoculation? The difference of the diseases of infancy and childhood from those of subsequent ages, is probably due to an alteration in blood-constituents much less diverse than that of the ox and human blood, yet that difference is arbitrary.

JENNER AND HAHNEMANN.

OUR Manchester correspondent writes: The homœopaths prevail. By their last *coup* they claim vaccination as their own, and assert it to be the clearest proof of the truth of their great dogma. "Si non è vero è ben trovato"—for few of their assertions have proved so lucrative to themselves, or so beneficial to the public. They have recently vaccinated a great number of the clerks, etc., in the neighbourhood of the Infirmary; for the merchants whose warehouses are near the hospital were frightened out of all commercial gravity by learning that the small-pox cases had been carried from the main building of the infirmary into the wooden huts, recently erected almost immediately beneath their windows. In one warehouse alone there might have been seen, one day last week, a small phalanx of homœopaths busy at work upon the arms of fifty clerks.

Dr. Reed, the resident medical officer, hearing the complaints made by the merchants in reference to this move, quickly made arrangements for the removal of all the cases of small-pox: he has selected a piece of land at Monsall, near Manchester, and accepted an estimate for the erection of some wooden huts. He expects to remove every case of variola from the centre of the town into the country within the next fortnight.

THE SMALL-POX AT SOUTHAMPTON.

A CORRESPONDENT writes to us:—There is much difficulty in getting definite information about the prevailing small-pox at Southampton. An attempt has been made to get returns of the number of cases under treatment from the medical practitioners, but they, for the most part, decline to furnish them. They fear that if they furnish the returns, their doing so will be made a precedent for taxing their time without compensation. There may be other motives, also, which influence

them. Even those who are employed under the Union, decline to furnish an account of their private patients. The medical practitioners of Southampton say they have already been dealt with very shabbily in respect to their payment for vaccination—that the lowest price was put for the performance of the operation, and that on sending in their bills they were still reduced one-third. So they are not in a temper for affording unpaid-for information. In the meantime, one physician will tell you that there are about fifteen hundred cases under treatment, another that there are not more than five hundred. The Privy Council is making inquiries into the subject. To-night, there is to be a meeting of the Medical Society of Southampton, to discuss the subject of the prevailing epidemic. The disease seems to be on the increase in the surrounding villages. The Southampton people are always averse to publication of statistics of disease. They fear it will not only injure the business of the town, but also the interests of the shipping—leading, perhaps, to clean bills of health not being given at foreign ports to vessels leaving Southampton, especially the Peninsular and Oriental steamers, etc. But, as Liverpool and London appear in the Registrar-General's weekly returns, there surely can be no good reason for Southampton not appearing also. The reticence creates panic, and I know that many country families are now keeping away from the town altogether on account of fear of the prevailing disease. There would be less alarm if complete and reliable information were afforded.

MEDICAL AFFAIRS IN PARLIAMENT.

A MEETING of the Parliamentary Bills Committee of the British Medical Association was held at 37, Soho Square, on Monday, May 1st; Dr. Ramsay in the chair. The minutes of the Council of the Metropolitan Counties Branch constituting the Committee, and of the Committee of Council of the Association extending its representative character, were read; as were also communications from local secretaries as to the appointment of representatives. Mr. Benson Baker, Grove Road, St. John's Wood, was appointed one of the Honorary Secretaries.

Mr. Ernest Hart stated the result of his communications with Sir Dominic Corrigan, the Solicitor-General, and Lord O'Hagan, on Clauses 4 and 8 of the Lunacy Regulation (Ireland) Bill. These clauses purported to compel medical officers, under penalty, to transmit gratuitously certificates of lunacy in the cases of dangerous lunatics. In connection with the Irish Poor-law Medical Officers' Association, he had assisted in organising a strong opposition to these clauses. Sir Dominic Corrigan, M.P. (whose letters were read), had placed amendments on the paper, and there was reason to hope that the Solicitor-General would withdraw the obnoxious clauses. [This has since occurred.]

The excessive term of service required from Irish Medical Superintendents of Asylums was also discussed. Mr. Donald Dalrymple, M.P., who was present, kindly undertook to confer with Sir Dominic Corrigan, with a view of ascertaining whether any means could be taken in connection with the present bill, to relieve them of this grievance. A correspondence of some of the representative members of that service with Mr. Hart was read and placed in Mr. Dalrymple's hands.

Mr. Dalrymple entered into explanations of the provisions of the Habitual Drunkards Bill; and it was resolved to adopt a form of petition in favour of that measure, of which copies should be transmitted to the local officers of the Association.

The Licensing Bill was considered, and a form of petition was adopted praying the House of Commons to pass speedily into law the provisions for diminishing the number of houses licensed for the consumption of alcoholic liquors on the premises, with a view to limit the temptations to, and facilities for, tippling. With the same object, it was resolved to recommend the Home Secretary to allow the sale by dealers of spirits in the newly recognised standard half-bottle—on the ground that medical practitioners, when ordering alcohol, do so not less often in the form of spirit than of wine; and that it should be obtainable in the smaller as well as the larger sealed bottle at grocers, who do not permit tippling on the premises, and where more reliable and cheaper spirit can usually be procured than at open public-houses.

A communication was read from Mr. W. H. Smith as to his proposed motion for a Royal Commission on the operation of the Poor-law in London; and the Secretaries were requested to communicate with various members asking them to support this motion, and to memorialise the House of Commons in favour of it.

On the motion of Mr. Curgenven, it was resolved to memorialise the Home Secretary, the President of the Poor-law Board, and the House of Commons in favour of Mr. Charley's motion for a Select Committee to inquire into the causes which lead to the excessive mortality of nurslings.

ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT MEDICAL MEETINGS.

THE May meeting of members of the above District will be held on Wednesday, May 10th, at 3 P.M., at the Maiden's Head Hotel, Uckfield: HENRY HOLMAN, Esq. (East Hothly), in the Chair.

Gentlemen willing to contribute papers, etc., will greatly oblige by letting me know at their earliest convenience.

Dinner will be provided at 5.15 precisely. Charge 5s., exclusive of wine.

FREDK. CHAS. MUDD, *Honorary Secretary*.

Albion Villa, Uckfield, April 19th, 1871.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEDICAL MEETING.

THE annual meeting of the members of the above District will be held at the Fountain Hotel, Canterbury, on Thursday, May 11th, 1871, at 3 o'clock: the President of the Canterbury Book Club in the Chair.

Dinner will be provided at 5 o'clock precisely. Charge, 5s., exclusive of wine.

All members of the South-Eastern Branch are entitled to attend, and to introduce friends.

Notices have been received of the following communications to be read at the meeting. 1. Observations on Vaccination, by Mr. Reid; 2. Remarks upon a Recent Outbreak of Diphtheria, with an illustrative case, by Dr. Kersey; 3. Case of Laceration of Vagina from Fracture of Glass Injection-Syringe, by Dr. Parsons.

Gentlemen who intend to be present at the dinner are particularly requested to inform me *on or before Tuesday* the 9th instant.

CHARLES PARSONS, M.D., *Honorary Secretary*.

2, St. James's Street, Dover, April 26th, 1871.

BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of the session will be held at the York House, Bath, on Thursday evening, May 25th, at 7 P.M.; CHARLES BLEECK, Esq., President, in the Chair.

R. S. FOWLER, } *Honorary Secretaries*.
E. C. BOARD, }

6, Belmont, Bath, May 3rd, 1871.

EAST YORK AND NORTH LINCOLN BRANCH.

THE annual meeting of the above Branch will be held on May 31st, 1871, at the Hull Infirmary. Gentlemen wishing to read papers will kindly send the titles to

ROBERT H. B. NICHOLSON, *Honorary Secretary*.

21, Albion Street, Hull.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT SOCIETY.

A MEETING of this Society was held on Thursday, March 30th, at the Crystal Palace Hotel, Norwood. Dr. DUKE of Norwood was in the chair; and nineteen gentlemen, members and visitors, attended.

Papers, etc.—1. Dr. GALTON read a paper on the treatment of Dysentery by Ipecacuanha. After speaking of the large doses in which he had used the drug in this disease in tropical climates, Dr. Galton gave the history of several cases in both children and adults occurring in the neighbourhood, which he had treated successfully simply by ipecacuanha.

2. Dr. DALTON gave the history of a case of Pregnancy fatal in the fourth month. From the commencement there was incessant vomiting, for which all of the usual remedies were tried in vain. Subsequently, convulsions came on, which was followed by a comatose condition, in which the patient died. There was no albumen in the urine two days before death; but *post mortem* examination showed disease of the kidneys.

3. Dr. DALTON exhibited a dissection of a Bicephalous Monster, showing the peculiarities of its circulation, etc.

4. Dr. BRAXTON HICKS read a paper on the Irregular Contractions of the Uterus during Pregnancy; and showed the degree of importance that might be attached to this symptom as one of the signs of pregnancy.

5. Dr. ADAMS gave the results of his experience during the past six

months as Public Vaccinator for Croydon, with special reference to the question of Revaccination.

The Dinner took place at 6 P.M.; Dr. Duke presided, and seventeen gentlemen were present.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT MEETING.

THE first meeting of the members of the above district was held at the Steyne Hotel, Worthing, on Tuesday, April 18th; H. COLLET, M.D., in the chair. Seven members were present.

Next Meeting.—It was proposed by Mr. HODGSON (Brighton), and seconded by Dr. HALL (Brighton), that the next meeting be held at Horsham, and that Mr. John S. Bostock of Horsham be requested to take the chair on that occasion.

Communications.—Dr. HALL (Brighton) read a paper "On Retroversion of the Uterus, especially in reference to the Gravid State."

2. Mr. HODGSON (Brighton) made a few Remarks on Vaccination, more particularly with reference to the success of the Vesicatory Process lately advocated by Mr. Robert Ellis.

3. Mr. HODGSON also brought before the members the Value of Unfermented Bread with Chapman's Entire Wheat Flour.

Time would not permit of the Secretary relating a case of Intestinal Obstruction, which he had intended to do.

Dinner.—The members of the district afterwards dined together at the Steyne Hotel.

WEST SOMERSET BRANCH.

A SPECIAL general meeting of the Branch was held on Saturday, April 29th, at 2.30 A.M., to consider the resolution of the Committee of Council requesting them to appoint a member of the Parliamentary Bills Committee. The meeting, however, being small, and the gentleman who would have been willing to accept the appointment not being present to explain his views, no election took place.

METROPOLITAN COUNTIES BRANCH: ORDINARY MEETING.

AN ordinary meeting of the Metropolitan Counties Branch was held at the Charing Cross Hotel, on Friday, April 21st; GEORGE JOHNSON, M.D., Vice-President, in the chair.

SOME OF THE LESSONS TO BE DERIVED FROM THE PRESENT EPIDEMIC OF SMALL-POX.

A paper on this subject was read by Dr. E. C. SEATON. It is published at page 470.

Mr. A. B. STEELE (Liverpool) had had pleasure in complying with a suggestion that he should attend the meeting for the purpose of making some remarks on the lessons to be derived from the present severe epidemic of small-pox in Liverpool. The occurrence of so many cases of death from small-pox after vaccination had somewhat shaken the implicit faith in the efficacy of the process; but it seemed to have been forgotten that Jenner laid down as a condition necessary to the protective power of vaccination, that it must be properly performed. And since his time it had also been learned that every adult on arriving at puberty ought to be well vaccinated. Until these conditions were complied with, it was unreasonable to expect complete protection. One lesson to be learned from the Liverpool epidemic was the fallacy of the statement that there was a large number of unvaccinated persons in this country—one-half the population, according to some. In Liverpool, the population of which amounted to half a million, and was of a very migratory character, the proportion of vaccinated persons was much greater. For instance, in the examination of a large school containing 505 children of all grades, 393, or 77.82 per cent., were found to present perfect marks of vaccination; 74, or 14.65 per cent., had imperfect marks; and 34, or 6.73 per cent., had no marks. Thus 92.4 per cent. had been vaccinated. This examination was made in 1858; and the results were corroborated by those of examinations of schools in Liverpool made during the present epidemic, in which it was found that not more five per cent. of the children were not vaccinated. Unfortunately, the quality of the vaccination was not so satisfactory as the amount; and to this must be attributed much of the post-vaccinal small-pox. In the Ashfield Street Small-pox Hospital, there were 564 cases of the disease; of these 116, or 20.56 per cent., were unvaccinated, of which 72, or 62 per cent., died; while in 416 patients who had been vaccinated, the deaths were 53, or 12.73 per cent. It had been impossible to eliminate a certain number of

deaths, which, though occurring after small-pox, could not be fairly attributed to that disease, but were rather the result of cachexia, intercurrent diseases, etc. On examining as to the effect of the quality of the vaccination, the following results were brought out as regarded the vaccinated persons.

CICATRICES.	NUMBER.	DEATHS.	PER CENT.
1	131	21	16.03
2	207	25	12.08
3	66	5	7.57
4	13	4	30.76
5	3	0	0

The large proportion of deaths in patients having four cicatrices might appear inconsistent with the doctrine of the protection given by vaccination; but there was also one death in two patients who had before suffered from small-pox, and no one would draw a conclusion from such statistics. The usual number of cicatrices obtained by vaccination in Liverpool was two. With regard to revaccination, all the nurses in the four or five small-pox hospitals in Liverpool had undergone the operation; none of them had had small-pox, except one, who was not revaccinated. As to the origin of the epidemic in Liverpool, Dr. Trench had satisfied himself that it was traceable to the importation of a few cases in September last into the Everton district from the continent or from America. The spread of the epidemic, however, raised a question: How was it that a year never passed without some cases of small-pox occurring in Liverpool, while yet the disease did not spread? Perhaps the only explanation was, that the extension of an epidemic was regulated by laws which could not be traced. Among revaccinated persons, only three cases of small-pox had occurred in Liverpool; of these patients, one was revaccinated only four days before the attack; another had been revaccinated four years ago in New York, and had one cicatrix; the third had been revaccinated seven years ago, and had two cicatrices. With regard to the arrangements for vaccination, Mr. Steele believed that the members of the Branch did not approve of the existing government arrangements for increasing the number of vaccinators. From an experience of more than twenty years, as parochial medical officer, vaccinator under the Privy Council, and gratuitous vaccinator, he had no hesitation in expressing the opinion that there must not be too much subdivision; for this produced much annoyance and trouble in the attempt to keep a sufficient number of children vaccinated to afford a regular supply of lymph. In Liverpool, he had been obliged to increase the number of days for vaccination for a time; but when the pressure was removed, he was very glad to go back to the old plan of one day each week. Apathy on the part of the people was an obstacle to vaccination; but he had rarely met with real serious objection to vaccination *per se*. The great difficulty arose from procrastination, and the habit of the poorer classes to put off matters which were for their benefit. There had not been a single prosecution necessary in Liverpool; persuasion was always sufficient. As to the interests of public vaccinators, he would allude to some grievances. Dr. Seaton had said that revaccination required as much care as vaccination. He agreed with this; and was sure that Dr. Seaton would agree with him that it gave more trouble than primary vaccination. Yet the pay was only two-thirds of that for primary vaccination. He suggested that the Branch should represent the matter to the Privy Council. Another difficulty was, that the public vaccinators were paid for successful cases only; now there was much greater difficulty in securing the inspection of adults than of infants. In point of fact, vaccinators were not paid for every successful case. He remembered two children whom he had vaccinated, who were overlain and smothered—and the vaccination could not be paid for. It had been suggested to him that the minimum fee should be slightly raised, so as to cover the lost cases.

Mr. LIDDLE had hoped to hear what could be done for the future. He had hoped that Dr. Seaton would have shadowed forth a better plan, and have said something on the management of small-pox hospitals. Four patients sent from Whitechapel had been refused at Homerton, because the forms had not been filled up; although patients had been previously admitted on the mere certificate of the medical officer of the union. Much was still wanted in the way of preventing the formation of foci of contagion; in Whitechapel, small-pox patients had been lying in the same rooms with other persons. He wished to know whether the small-pox hospitals were for general or local purposes; for preference appeared to be given to cases occurring in the localities where the hospitals were situated. He thought that the Privy Council should appoint for each district a vaccinator who should be independent of private practice, and should have two or three stations, so as to relieve the poor from coming long distances, perhaps more than once; this officer should attend entirely to vaccination. The plan would ob-

viate jealousy on the part of private practitioners. The plan of payment per case was wrong; there should be a fixed salary, so that the vaccinator would have no inducement to operate unless the child was in a proper condition.

Dr. LANKESTER said that the deaths among the unvaccinated in the parish of St. James (Westminster) had been seventy-five per cent.; and among the vaccinated seven per cent. In the early part of the year, he had issued a circular calling for information as to the occurrence of small-pox cases; but frequently he only learned their occurrence through the registrar of deaths. A house in which there was a case of small-pox ought to be treated like one in which there was some dangerous substance such as gunpowder; and those who concealed the knowledge of cases ought to be subject to fine or some other punishment. He believed that, in consequence of concealment, not more than two-thirds of the cases became known. Some persons—for instance, tailors—objected to disclosure on the ground that it would injure their business. The present epidemic would probably die out from natural causes; but, if it had been one affecting cows and sheep, energetic measures would have been taken, and it would have been stopped several weeks ago. The provisions of the Diseases Prevention Act might have been brought into action in the present case. Medical practitioners should be compelled by law to declare the cases of small-pox under their care to the medical officers of health, who might then take measures to prevent the spread of the disease. Too much respect ought not to be paid to etiquette in this instance. With regard to vaccination, the great difficulty was in finding the unvaccinated children. One of two things must be done; either every child must be registered, and the register must be put into the hands of the vaccinator; or a person must be employed to go from house to house and search out the unvaccinated. The registration of births in England ought to be compulsory. Vaccination should be regulated from an imperial and not from a local point of view. The management should not be left to boards of guardians. In Italy and Prussia, where vaccination was regulated by the government, it was successful; not so in France—and the people of that country had suffered accordingly. The cost might be objected to; but what of that if life were saved? It had been calculated that the loss in money during the present epidemic in London, had amounted to a quarter of a million; but the expenditure of one-fifth of that sum would have stopped the disease in all London. During an epidemic of small-pox, a number of vaccinators ought to be appointed; one was not enough. He had thought some time ago that if a person did not have his child vaccinated, and the child subsequently died of small-pox, such person was amenable to the law. In such cases he had held inquests—not, as was alleged by some, for the sake of the fees, but because the cases showed the want of some system of inspection. A verdict of manslaughter was not, however, desired in any case, as it was thought that the persons had already been sufficiently punished. In the parishes of St. James and St. Anne (Westminster), there should be eight or ten inspectors; but there was only one.

Dr. HEYWOOD SMITH asked whether the occurrence of an eruptive fever—such as typhus—in a vaccinated person, ought not to prove a reason for revaccination. He suggested that the British Medical Association should print and circulate a sheet of tabulated headings for information as to vaccination—the number of punctures, results, etc.

Mr. P. H. HOLLAND said that it had been stated that the number of cases of small-pox after vaccination was increasing; but this was because the number of vaccinated persons had increased. He had also heard it stated that vaccination increased the liability to small-pox; because in a certain town in France there were more cases of small-pox among vaccinated than among non-vaccinated persons. Some persons, again, objected to vaccination that disease followed it; this, however, occurred very rarely. Now and then, erysipelas and mortification had been met with; but such consequences would in some persons follow any wound. Ought, then, the certain protection afforded by vaccination to be avoided? He did not find that women objected to marriage because death occasionally occurred in childbirth.

Dr. DOUGLAS asked the ground for the necessity of revaccination. He had heard no argument for repeating the operation.

Dr. WYNN WILLIAMS had seen an epidemic of small-pox in a village in Wales. On vaccinating all the children, the disease ceased among them, but attacked persons who had arrived at puberty; on revaccinating these, it ceased among them. He asked the opinion of members as to using the lymph of revaccination; he believed that it should not be used. He believed that disease was sometimes introduced in vaccination: he had seen a case of pyæmia from this cause. All cases of alleged transmission of disease ought to be reported to a central authority and traced out; and thus the public might be satisfied that the vaccine lymph was not the means of conveying disease. In Jenner's time, the protective power of vaccination was apparently greater than

now. What means were there now of renewing vaccine matter from the cow?

Mr. LORD had received from Dr. Ballard of Islington some vaccine lymph from the heifer. The effects were at first more severe than those of ordinary vaccination; but, after transmission of the lymph, they soon became milder. He thought revaccination unnecessary; the protection afforded by vaccination, he had always contended, remained through life.

Mr. HUNT said that, as a rule, if vaccination were well performed, cow-pox could not be taken a second time. He thought that the proposal to revaccinate implied a doubt that we did not know whether vaccination had or had not been well done. Revaccination was not only unnecessary but dangerous; it had been said to have been followed by death from crupiselas.

Dr. DRUITT said that revaccination was justified by its results. After vaccination, the operation could be repeated with success after a time. It was evident that the protective influence of vaccination decayed, but that it could be renewed. There was a fallacy in estimating the vaccination from the number of cicatrices, as sometimes the vaccination was done so as to form two or three confluent vesicles, from which only one cicatrix would result. The state of vaccination might be ascertained by inspection of the children in schools: he had done this when Medical Officer of Health for St. George's, and Dr. Aldis did the same; and he believed that, if inspections of the kind were generally carried out, very few persons would be left unvaccinated.

Mr. BARTLETT had for many years performed revaccination as a test of the efficiency of the primary vaccination—generally at the first opportunity after dentition. In the greater number of cases, when the first vaccination had succeeded, the second failed to produce more than some irritation. He had received from a relative of Jenner some lymph from the cow; after one or two transmissions, there was no difference between its effect and those of the ordinary human vaccine.

Dr. STEWART asked if there were any data for determining the proportion of cases in which accidental results followed vaccination. He had seen phagedæna as a sequel.

Dr. SEATON said that there were no data for determining the proportion of accidents; but there were more sore arms after revaccination than after vaccination. Revaccination was a thing not to be played with; and hence he urged that it should be done leisurely, and not during the pressure of an epidemic. Persons having four cicatrices might take small-pox; but very few of them died. As to revaccination, its efficacy had been proved on the nurses and also on the work-people employed at the Small-pox Hospital. Mr. Marson had insisted on revaccinating all who had not good marks. Among those revaccinated, none took small-pox; but among those who had marks and were not revaccinated there were some mild cases of the disease. He would not say that persons should not be revaccinated after an attack of eruptive fever; but he was opposed to the mania for revaccination during an epidemic. He was not sure that vaccination in its early days afforded better protection than now. Serious cases of small-pox did not occur to any extent among the vaccinated persons until 1815 or 1816, when many of those vaccinated in childhood had grown up. Mr. Ceely, who was a great authority in matters relating to vaccination, had been unable to detect a difference between the vaccine lymph of different periods.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 14TH, 1871.

J. BURDON-SANDERSON, M.D., F.R.S., in the Chair.

Dr. BROADBENT read a paper on Phosphorus as a remedy in Skin-diseases, in continuation of a series of cases published in vol. ii of the Society's *Transactions*, in which manganese and nickel were given as remedies for anæmia. If the action of remedies and poisons on the human organism were due to their chemical properties, substances allied chemically ought to have an analogous physiological and therapeutical influence, or the diversity in their action ought to be explicable on chemical grounds. In other words, chemical groups should form therapeutical groups. The investigation suggested by these considerations was as follows. Given a distinct and well-ascertained physiological or therapeutical effect, can results in any way similar be obtained from the chemical allies of the body producing it? The four members of the group of which phosphorus is the head chemically, and of which arsenic is the chief representative in therapeutics—phosphorus, arsenic, antimony, and bismuth—stand in the order named in regard to equivalent numbers, physical properties, and chemical energy; and their

compounds with other elementary bodies form analogous series. Excluding bismuth, which, from its feeble affinities and tendency to form insoluble compounds, may be considered inert, there is in the mode of action of phosphorus, arsenic, and antimony, as poisons, and in the tissue-changes which they induce, a parallelism as remarkable as that of the chemical properties of these bodies, both in the energy and in the character of the physiological effects. The opportunity for bringing out further therapeutical parallelism is furnished by the well-known curative action of arsenic in certain classes of skin-disease, such as some forms of eczema and psoriasis. In cases of this kind, instead of arsenic, phosphorus was given. Two grains of this substance were dissolved in oil, and from three to seven drops of the solution were given, usually in mucilage, three times a day after meals. Six cases of eczema were related, in all but one of which the phosphorus was decidedly beneficial. The cases of psoriasis were also six in number, two out of which proved rebellious, not only to phosphorus however, but to arsenic, and all treatment, general and local. The object of the communication was not to bring forward a new remedy for skin-diseases, but to exhibit one more analogy between phosphorus and arsenic. If phosphorus, however, were as manageable and as little disagreeable as arsenic, it would probably, according to Dr. Broadbent's experience, be found superior in efficacy.—Dr. ALTHAUS said that the best phosphorated oil was that introduced by the Prussians. The taste of phosphorus given in the form of a pill was disguised. The remedy was well borne increased up to a quarter of a grain. Eruptions were often prevented during the employment of certain medicines if these were combined with phosphorus.—Dr. LANGDON DOWN would have given parallel salts of phosphorus with those of arsenic.—Dr. WILTSHIRE thought the amorphous the best form of phosphorus.—Dr. F. SIMMS had seen very excellent results from phosphate of iron.—Dr. BROADBENT, in reply, said that he had found the amorphous phosphorus almost inert. Phosphorus, when combined with oxygen, its action as phosphorus is neutralised.

Dr. FREDERICK SIMMS read notes of a case of Left Hemiplegia with total loss of the Right Eye.

Dr. BUZZARD read a paper, for Dr. ROYSTON FAIRBANK, of Lynton, on the Use of Digitalis as a Topical Remedy. The mode of application of digitalis adopted was to make a decoction of the dried leaves in the proportion of a small teaspoonful to half-a-pint of boiling water, or a drachm of the tincture might be used in the place of the leaves. Flannels wrung out in the decoction were applied around the inflamed parts in the usual way. Another mode of applying the drug was to foment the part affected with hot water, and afterwards to gently rub in a little of the tincture. Dr. Fairbank had used with great success these local applications of digitalis to cases of acute inflammation of the elbow and knee-joints, and also to a patient suffering from severe inflammation of the breast.

Dr. BUZZARD also read a paper, by Mr. LAWSON TAIT, on a case of Encephaloid Cancer of the Femur treated by Electrolysis. The patient was a female, aged 30, who suffered from encephaloid disease of the right femur. Subcutaneous injections of morphia, in quantities of twenty and twenty-four grains, were necessary to relieve her of her terrible agonies. Hydrate of chloral was also given in doses of from sixty to one hundred grains, but it was found that, unless combined with morphia, or with the administration of chloroform, it failed to induce freedom from pain. Mr. Lawson Tait remarked that the chloral hydrate was an excellent adjuvant to opium and chloroform. In this patient a much smaller dose of chloral was required if morphia had been previously given, and a smaller dose of chloroform was needed to produce anaesthesia if the patient were already under the influence of chloral. Ultimately he tried the effect of electrolysis on the tumour; he inserted (under chloroform) six needles into the tumour, and applied the current for ten minutes, and three days afterwards he repeated the operation for fifteen minutes. The result of these operations was to give the patient great immunity from suffering. Mr. Lawson Tait remarked that, had the electrolytic treatment been applied earlier, he was certain it would have saved her much pain.—Mr. CARTER suggested that the pain might have been relieved by cutting the nerve.—Mr. T. SMITH asked Dr. Althaus if he had ever seen a case of malignant tumour diminish under electrolysis.—Dr. ALTHAUS replied that out of fourteen tumours treated by this method, two had disappeared. The pains of cancer had always been relieved. In cases of advanced disease of the womb he had been unsuccessful.—Dr. F. SIMMS asked if, when electrolysis was being employed, chloral and morphia were also given.

FRIDAY, APRIL 28TH, 1871.

W. W. GULL, M.D., D.C.L., F.R.S., President, in the Chair.

Dr. GREENHOW described a case of Diphtherial Paralysis treated with Faradism. The patient, a female aged 26, one week after subsidence

of diphtheria, showed symptoms of paralysis, which took the following order: palsy of the velum palati, vision-troubles, numbness of the left and afterwards of the right lower extremity, deadness and loss of power in the fingers, incontinence of urine, vomiting, occasional vertigo, palpitation and dyspnoea, with constriction feeling in the chest and abdomen; then loss of power in the lower extremities, and partial deafness. On admission, her legs were emaciated, and she was only able to stand imperfectly. She could use her hands but little. There was some tenderness, on pressure, over the left sciatic notch. There was anaesthesia of the legs, and the electro-muscular contractility was impaired. She was treated by the application of Faradism alone, and in twelve days she could dress herself. In twenty-one days the normal electrical reaction was established in the legs, and she could walk a little. On March 14th, two months after admission, she left the hospital well. Dr. Greenhow, whilst acknowledging that the large majority of cases of this kind recovered under any kind of tonic treatment, entertained no doubt that the treatment here adopted expedited the recovery. He did not attempt to determine the precise pathological cause of the disease, but suggested the occasional existence of neuritis as worthy of attentive consideration in this relation.—Dr. ALTHAUS believed that the cervical sympathetic was affected in these cases. Tenderness was often found to exist over the ganglia. He recommended a continued current to the upper ganglion of the cervical sympathetic.—Dr. HUGHLINGS JACKSON asked Dr. Greenhow if he had been able to determine anything as to the kind of defect of hearing in his patient, and if he had grounds for inferring that the ear-affection was a symptom of the same order as the eye-affection—if it could be attributed to palsy of small muscles within the tympanum. He (Dr. Jackson) had heard of defect of hearing in but one case of diphtheritic paralysis; the patient, a well educated medical man, said that the defect was very trivial, but that it was enough to “render music unintelligible.” There was seemingly in this case a loss of accommodation, so to speak, for successions of sounds. Dr. Jackson particularly wished to ask Dr. Greenhow if his very large experience enabled him to say that a slight degree of deafness occasionally occurred as one symptom of the series in diphtheritic paralysis; and, if so, in what order it occurred.—Dr. BUZZARD expressed his doubts as to the affection of the cervical sympathetic.—Dr. ANSTIE requested to know whether Dr. Greenhow meant to say that the neuritis was a neuritis migrans travelling inwards to the cord, and then spreading outwards.—Dr. WILKS believed that diphtheritic paralysis was due to some general cause, and not to local origin; for he had seen cases in which the throat had been so slightly affected, that had the patient not lived in the house with diphtheritic cases, he would not have suspected the disease.—The PRESIDENT said he had examined the cord of one fatal case, and found the only change that of anaemia. He considered the affection of the eyesight one of non-adaptation.—Dr. GREENHOW, in reply, observed that tenderness over nerves was a very common occurrence. He had not seen a case in which the hearing had been sensibly affected. He did not think it a nerve-affection, but irritation creeping up the Eustachian tube. In answer to Dr. Buzzard, he said that he had had no experience of diphtheria in other parts of the body, except in connection with the throat-affection. In connection with some other observations made, Dr. Greenhow said that there were generally a few days of comparative convalescence before paralysis set in. He had always observed premonitory symptoms prior to sudden death in diphtheria.

Dr. GULL brought before the Society a case of Accumulation of Hair in the Human Stomach, occurring in the practice of Dr. Godfrey of Enfield, the circumstances of which were similar to those of one reported by Dr. Best of Louth, in the BRITISH MEDICAL JOURNAL, December 1869. In the present case the patient was a married woman, aged 32, mother of three living children, aged respectively eleven, nine, and four years. Her children and friends had never noticed her to swallow hair, or to be strange in her mind or manners. She was affected with constant vomiting for about seven months before her death. The final circumstances were these. She was pregnant with her fourth child. On January 27th, 1871, labour began, and a seventh month foetus was born. The birth of the child was followed by peritonitis, and death after two days. On a *post mortem* examination there was found perforation of the duodenum, and the stomach contained a large mass of human hair and string, which extended through the pylorus into the duodenum. The hair was of three colours, corresponding with that of her own head and of her children. Dr. Gull drew attention to the similarity of these cases, as showing that there was some common cause for them, and suggested that they might probably depend upon some all but extinct insect which shows itself in some of the lower animals. It appears that certain breeds of cats are apt to commit involuntary suicide by swallowing the hair of their coats, and most

museums contain hair-bezoars of different kinds, from horses and cows.—Dr. HABERSHON said that a similar case had been brought before the Pathological Society by Mr. Pollock. The patient was a female, aged 19. She died of peritonitis.—Dr. LANGDON DOWN said that he had brought forward a specimen some years ago at the Pathological Society. The mass was taken from the body of an imbecile who, engaged in making mattresses of the material of which it was composed, ultimately died of obstruction of the bowel and peritonitis.—Dr. THOROWGOOD referred to another case in the museum of the Royal Berkshire Hospital, and published in the BRITISH MEDICAL JOURNAL.—Mr. COOPER FORSTER asked for a solution of the reason why females swallowed these things.—Dr. WILKS expressed the opinion that it was instinct.—Dr. WILTSHIRE referred to several cases recorded in the *Philosophical Transactions*.—Mr. DE MORGAN referred to a case of Dr. Crawford's, in a female about seventeen years of age. There was obstinate constipation, and gastrotomy was about to be performed, when she passed a large mass composed of hair.—Dr. CHURCH referred to a case of a female, published in the BRITISH MEDICAL JOURNAL, where bent pins were swallowed, which eventually caused the death of the patient.—Dr. GULL thought that the habit or instinct might be connected with some affection of the pneumogastric nerve.

Dr. GREENHOW read for Dr. Henry Thompson notes of a case of Diabetes treated with Opium. The patient, aged 35, exhibited well-marked symptoms of diabetes. Eighteen months before admission into the Middlesex Hospital, he began to pass large quantities of urine; and, during the last six months, his lips and teeth stuck together in the morning, and a viscid secretion exuded from the roof of his mouth. His tongue began to darken, and eventually became black. Seven or eight weeks before admission he perceived a peculiar saccharine taste in his mouth, and his sight grew dim. When admitted, he had a densely coated blackish tongue, feeble gait, and desponding aspect. He passed eight pints and a half of urine in the twenty-four hours, of specific gravity 1042.5, the total amount of sugar being 6.095 grains. He had persistent headache, pains in the loins, intense thirst, ravenous appetite, occasional hæmoptysis, night-sweats, sponginess of the gums, and looseness of the teeth. The patient was treated with large and repeated doses of opium for six weeks, given in the compound soap-pill, the solution of morphia, and Battley's solution, until the daily quantity amounted to twelve or fourteen grains, when it was discontinued on account of intense headache. The opium treatment resulted in a diminution in the flow of urine and the amount of sugar, but no change in the specific gravity or in the general symptoms until a fortnight after the opium was abandoned. He then improved, and lost the distinctive diabetic expression. Dr. Thompson hence concluded that the opium treatment was not beneficial, and ascribed the improvement to other remedies, to a well regulated diet, and to favourable sanitary conditions.—Dr. PAVY expressed his regret that the details of the dietary were not given. He looked upon this as a most important matter, as transgressions on the part of the patient affected the urine greatly. He had frequently found it necessary to insist strongly on knowing what the patient had taken, before finding out that he had disobeyed instructions in the matter of dietary. He believed that opium controls the disease, and that nothing so much diminishes the intensity of the malady. The result depends upon the stage of the disease; if not advanced, it is more amenable, when simple restriction alone will remove the sugar; if later, opium will do it, but still the disease advances. The usual termination in these cases is coma, but phthisis carries off persons not treated. He had found codeia more efficient than opium or morphia.

CORRESPONDENCE.

OUT-PATIENT HOSPITAL REFORM.

SIR,—I trust the new Committee will be fortunate in obtaining funds for carrying out their worthy object. It is much to be regretted that members of our profession in London, as well as in the provinces, should not see the desirability of active co-operation to improve a state of things which ought no longer to exist. A few shillings from every medical man would provide ample funds for the purpose; and after Dr. Meadows's appeal in the JOURNAL of the 29th instant, it will be hard if the new Committee does not receive more encouragement than has been accorded to the old one. Dr. Meadows's letter would rather lead one to infer that “ten shillings” only was received by the old committee. I would inquire whether all the sums received have been acknowledged in the journals? and if not, I would suggest that this should be done in future.

Surely there are many well-to-do members of our profession who will yet come handsomely forward to assist an object so worthy in every

instinct?

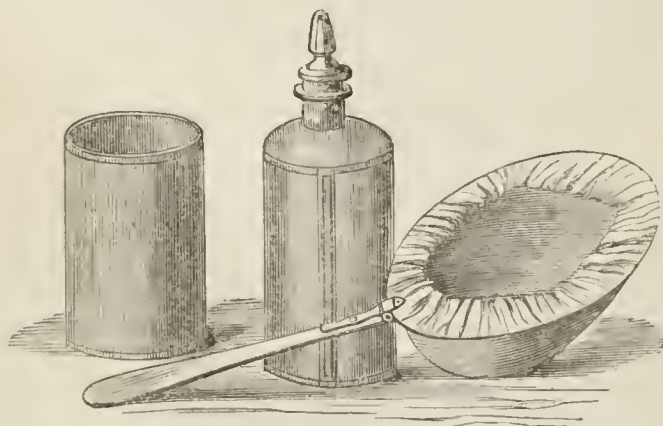
way; and in the meantime our warmest thanks are due to Dr. Meadows and those gentlemen who have formed the old and the new Committees. I am, etc., W. H. DAY, M.D.

10, Manchester Square, W., April 30th, 1871.

CHLOROFORM ADMINISTRATION.

SIR,—Under the above heading, in the JOURNAL of the 11th ultimo, I find that a new chloroform-bottle has been brought before the profession. It does not say whether for the first or second time, but that the introducer, if not the inventor of it, is Mr. Bloxam, chloroform-administrator at St. Bartholomew's Hospital. Considerable emphasis is attached to it as being a "graduated" chloroform-bottle. With the exception of its being graduated, I am at a loss to find any difference whatever between it and the chloroform-bottle and drop-tube invented by myself and illustrated in this JOURNAL so far back as August 2, 1862. It was perfected (the drop-tube) both in glass and metal with stopper and cap identical with this new invention, by Messrs. Maw, Son, and Thompson, of London. The new invention, be it remarked, is manufactured "solely" by Messrs. Arnold and Sons, of London. Mr. Ernest Hart is said to have introduced an instrument "identical in character ten years since (?) for ophthalmic purposes," while the real inventor's name is conspicuous by its absence. As regards "ophthalmic purposes" it is interesting to revise my own written statements in 1862. Amongst them I read as follows:—"I will just add that this drop-tube will serve for many other equally useful purposes, namely, for *dropping collyria*, for the administration of medicine in the form of drops," etc., including, as a matter of course, the purposes to which Dr. Lionel Beale and others have put it, and not excepting Mr. Rimmell and others for perfumes. As regards the drop-tube, which alone possesses the merit of being an invention, if invention it may be called, I find that I have wisely recorded in a note, that "Messrs. Maw and Son have greatly improved this drop-tube by making it *entirely of glass*." I may be wrong, and I shall feel obliged to Mr. Bloxam if he can prove that I am wrong when I state that nowhere in the medical literature of Britain can he or anyone show that an "instrument, identical in character" or purpose with his own, was ever described or made known previously to the 2nd August, 1862, the date when my own was first published.

So far as I can judge, I do not think that, as yet, anything has surpassed in usefulness, economy, safety, and efficiency, my simple little invention known in the market of the profession as "Skinner's Chloroform-bottle and drop-tube." The size of the bottle; the colour of the glass (actinic green), to preserve the contents from the questionable action of light; the form, which readily fits the hand and pocket; the leather covering to protect it from the heat of the hand and from breaking; and a slit down the side, as a tell-tale to say when to replenish—have been closely studied by practical hands and heads, and the whole, after nine years' experience, is found to be all that need be desired. To Messrs. Maw and Son the greatest praise is due; they have spared neither time, trouble, artistic skill, nor expense in order to bring the instrument to its present state of perfection; but, not only has the inventor been ignored by the introducer of this new chloroform-bottle, but another maker's name has been substituted who never took the slightest trouble in the matter beyond copying from another. For the benefit of those who may not have seen a diagram of my instrument, I send you a copper-plate of it for printing along with this letter.



One word as regards the *graduation*. Is it necessary? Not only is it not necessary, but the graduation of the bottle is altogether a delusion and a snare. I have had as large an experience of the administration of chloroform as any man now alive—I feel perfectly at home with it, at least as much as any man can be with so powerful an anæsthetic in his hands—and I confidently state, without fear of contradiction, that it is false to assume that we know the safe dose or quantity of chloroform

when we actually know nothing of the sort. It is now nine years since I printed my opinion on this point—and the same opinion was always entertained by the late Sir James Simpson,—and I now repeat it, with nine additional years of a large experience to back it, "that the *quantity* of chloroform, and the *exact proportions* of chloroform and air, are no guides whatever." If anything be true, this is; and, if so, what is the use of the "graduation" of the bottle? The only uses which I see it can fill are, to gratify an idle and useless curiosity, to give to the administration an appearance of scientific mystery and refinement, which are no part of the process, or to enable one once in two or three lifetimes to tell, not the exact quantity necessary to render life safe, but the exact quantity which proved fatal.

In conclusion, I have not, and I never have had, the slightest pecuniary interest in this or any other invention; but, in order to prevent the apparatus getting into indifferent hands, I still acknowledge no instrument which is not made by Messrs. Maw, Son, and Thompson, of 10, 11, and 12, Aldersgate Street, London.

I am, etc., THOMAS SKINNER, M.D.
Dunedin House, Liverpool, April 18th, 1871.

A CASE OF OPPRESSION.

SIR,—I have to request the attention of the profession to an instance of injustice and oppression which came under my notice during a short Easter visit to the country; my reason for taking up the case being, that the injured person is an old student of the hospital to which I am attached, who had earned the good opinion of all his teachers by his diligence, intelligence, and gentlemanly character.

In June 1870, he was appointed house-surgeon to a well known cottage hospital. No stipulation was made at the time restraining him from practice in the adjacent town after the expiry of his term of office. In November, however, he received a letter from the secretary of the institution, stating that the committee had come to the conclusion that he should sign a bond pledging him, under a heavy penalty, not to practise within five miles of the place for seven years after leaving the hospital; the reason assigned being regard for the interests of the medical men resident in the town. He naturally protested against the imposition of a restriction which materially affected the value of his appointment, fortifying his personal protest by those of gentlemen holding similar offices elsewhere, who stated, in reply to his questions, that such restrictions were unusual, and prayed him, in the interest of the profession, not to create a precedent of the kind. The only effect of this appeal was to bring down the term from seven to three years; and, as it was still injustice to resident practitioners which was assigned as the motive for this gross injustice towards him, the house-surgeon called upon the medical men of the town. As honourable men, they were not afraid to take their chance against honourable competition, and with one consent they repudiated the protection offered them at the expense of a wrong done to a young *confrère*. This was duly communicated to the committee, and obviously the last excuse for their proceeding was gone; their chosen ground was cut from under them. But, if argument failed them, they had authority; and the suggestion was now tendered that, as he objected to sign the bond, he had better send in his resignation. Under this cruel pressure, he for a moment yielded, and wrote that, if the committee, notwithstanding his appeal and the statements he had made, still thought it just to insist on his signing the bond, he must do so. Later, however, he recovered his firmness, and declined either to sign or resign; and the result is, that he has received notice of dismissal.

It is unjust under any circumstances forcibly to vary the terms of an engagement, against the consent of one of the contracting parties; it is particularly so in a case like the present. A young surgeon takes a hospital appointment, not for the money-payment he may receive, but for the sake of certain prospective advantages, such as extended and varied practice, or reputation to be acquired from association with men of high standing in the profession, or opportunities of establishing a practice. In this instance, the first of these advantages was out of the question; I will say nothing about the second; and the third was to be entirely withdrawn. Thus a young medical man of excellent promise was offered the alternatives of the absolute loss, already incurred, of nearly a year with all its chances, probably of great value, and of continued tenure of an office without future and of no great present use. I need not point out what an injury and injustice this implies.

But the profession will have heard with some astonishment of the sudden concern manifested by the committee for the interests of the medical men of the town near which the hospital is situated. A fuller explanation of this will be given later, if necessary. I will only say now that the house-surgeon found, soon after his appointment, his hospital work, which was sufficiently light, diversified by attendance on

the private patients of the physician to the institution, during his frequent absence from the town. This physician, again, was the single exception to the general statement that the medical men of the neighbourhood sought no protection against the designing house-surgeon. Finally, no injustice will be done him if he is credited with great influence in the committee.

I have not mentioned names in this communication, or expressed at all my opinions, because I am not without hope that the decision of the committee may be revised. There are eminent medical men upon it, and I am sure they will not be parties to any injustice. I know, indeed, that my feelings are fully shared by some among them. The misfortune is that, allowing their names to appear on the committee as an expression of their interest in the institution, they take no part in its management, and their influence is wielded by probably a small number of men of whom they know little or nothing.

I propose, sir, with your permission, to return to this subject, if necessary; or I may ask a place in your columns for my young friend and former pupil, who has done himself great credit in his correspondence with the committee.

I am, etc.,

W. H. BROADBENT, M.D., F.R.C.P.

Seymour Street, May 2nd, 1871.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN.

THE Wellington Guardians were let off very easily indeed by a coroner's jury lately. Dr. Wolstan Dixie proved that the necessities of life and the assistance which he had ordered for the man were refused by the guardians and the relieving officer. The man died shortly afterwards in a very filthy and neglected state. The jury found that "a nurse ought to be provided." Dr. Dixie gives a very unfavourable account generally of the state of affairs in the infirmary. He says the guardians offered the man the house forty-eight hours before his death, when no medical man in the kingdom would have sanctioned his removal. As usual, the pauper having died under circumstances of exceptional neglect by the guardians, the medical officer has to resign for complaining of their neglect.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

A MEETING of this Association was held on Wednesday evening last, at the Freemasons' Tavern; JOSEPH ROGERS, M.D., President, in the Chair.

MR. BENSON BAKER gave an account of what had been done by the Council since the last meeting to further the interests of the Association. In conjunction with the Poor-law Committee of the British Medical Association, they had taken part in a deputation to Mr. Simon, to represent to him numerous points of medical interest in connection with vaccination. Applications for admission to the Association had been received from Poor-law medical officers in Scotland; but the Council had advised them to establish an association of their own.

The PRESIDENT read an address, of which we shall endeavour to give an abstract at an early opportunity.

MR. CORRANCE, M.P., moved—"That this meeting, considering the present inefficient system of Poor-law relief in the United Kingdom as contrasted with the beneficial and economic arrangements which have existed in Ireland since the introduction of the Medical Charities Act of 1852, are of opinion that the adoption of a similar system here would prove highly beneficial to the sick poor, and in its results eminently economical to the ratepayers." Since the commencement of the Association, no more important matter, nor one more likely to become law, had been brought before it than that laid down by their President. Opposition would be raised; jealousy might arise, but he believed that would soon disappear, and it would be found, as in Ireland, that private practice was benefited. As to the payment of medical officers, it seemed to him that Dr. Rogers was right in urging that this should be drawn from the Consolidated Fund. Mr. Corrance noticed how benefit societies had long ago discovered that good medical attendance for their members was a most economic course; and he should like to see a dispensary system established with which these societies should act in cordial co-operation. He thought it was abundantly proved that the introduction of such a system as the Medical Charities Act would tend to diminish pain and suffering, and to lessen the burdens of the ratepayer. To every close observer it must be evident that our present Poor-law system was a failure. He (Mr. Cor-

rance) was in favour of separating the young and the sick from all pauperising influences; the remainder forming pauperism would be small.—MR. BENSON BAKER seconded the resolution; and, in doing so, gave his experience of the ill effects of the concentration of vaccination and of the carrying of small-pox patients long distances to hospital.—The resolution was carried unanimously.

MR. HARDING moved the second resolution—"That this meeting regrets that, at a time of epidemic of small-pox, the Privy Council has advised Guardians to lessen the facilities for vaccination by the dismissal of district vaccinators and the appointment of one vaccinator to large areas and populations, as in St. Marylebone and St. Pancras. This meeting further suggests that the evidence of district medical officers should be taken by the Parliamentary Committee now sitting on the vaccination question." Mr. Harding adduced statistics to show that the dismissal of the district vaccinators was not in consequence of any neglect of duty. Of the six vaccinators in St. Pancras, where the Privy Council's system had been introduced, he had the returns of three. From these he found that, between the 1st of January and the 21st of April, the number of revaccinations performed by Mr. Harvey was 2400; of primary vaccinations nearly 1200; by himself 1500 revaccinations, and nearly 500 primary vaccinations; by Dr. Thomson upwards of 1000 revaccinations and 500 primary vaccinations.—MR. KNIGHT, M.P., seconded the resolution. He condemned the present system of Poor-law relief, and explained how beneficial improvements were opposed by the permanent officials at Gwydyr House. There was almost a refusal on the part of the Committee, which sat for three years considering Poor-law matters, to hear evidence from Poor-law medical officers.

The Rev. W. H. JOY moved—"That the Council of the Poor-law Medical Officers' Association, having considered the unjust prosecution of Mr. Defriez, one of the medical officers of Bethnal Green, beg to tender to him their heartfelt sympathy for the mental anxiety to which he has been so iniquitously subjected; they congratulate him on the result of the trial, and express their determination to open a subscription in order to relieve him of some of his legal expenses."—This was seconded by Dr. STALLARD, supported by Dr. SARVIS, and carried unanimously.

A vote of thanks was passed to the President, and the meeting then concluded.

THE CASE OF MR. DEFRIEZ.

THE following letter, read at the meeting of the Poor-law Medical Officers' Association on Wednesday, relates to circumstances which we have already brought to the knowledge of our readers. Dr. Barnes, who was a witness in the case, returned his fees.

32, Grosvenor Street, W., April 19th, 1871.

My dear Sir,—You are doubtless aware of the unjust and cruel persecution to which Mr. J. G. Defriez has been subjected. He was indicted for manslaughter by a coroner's jury, in defiance of the remonstration of the coroner that the charge could not be sustained. At the Old Bailey, the Recorder felt this so strongly that the case was stopped before the evidence for the defence was called. The coroner's jury, it is reported, for want of a better reason, committed Mr. Defriez because he neglected to appear before them. Their dignity was to be avenged, even at the sacrifice of justice.

As I was present in court, heard the evidence given at the trial, and had studied the depositions made before the coroner, I am in a position to say that, from a medical point of view, there was no basis for the charge.

Of course it is satisfactory that the judge stopped the case. Fortunate is it for the country, as well as for the medical profession, that we have such judges. But is justice satisfied? Ought the public and Mr. Defriez's brother practitioners to be satisfied at the simple break down of an unjust prosecution, which leaves one man to bear alone the crushing weight of the pecuniary loss and mental torture this stupid jury has recklessly inflicted? The public will perhaps one day be roused to ask whether it is likely to be better served by men who, like their Poor-law medical officers, go about their duty with a halter round their necks. What concerns us, I think you will agree with me, is to protect as far as we can an individual brother practitioner from the disastrous consequences of the stupidity of a Bethnal Green jury, and to endeavour to relieve their victim, Mr. Defriez, from the heavy pecuniary loss which he has suffered. I do not know if the Poor-law Medical Officers' Association has any fund to aid in such a case; but it seems to me that a movement of practical sympathy with Mr. Defriez, one of their body, incurring injury through his position as a Poor-law medical officer, might most appropriately be taken up by them. In

whatsoever manner such a fund be organised, I shall be happy to subscribe to it.

I am, dear sir, yours very truly,

ROBERT BARNES.

Joseph Rogers, M.D., President of the Poor-law Medical Officers' Association.

*** Dr. Sarvis, of 135 Bethnal Green Road, has undertaken to receive subscriptions.

VACANCIES.

AUCHTERARDER, Perthshire—Parochial Medical Officer.
BICESTER UNION, Oxfordshire—Medical Officer for the Heyford District.
BRACADALE, Skye—Medical Officer and Public Vaccinator.
BRAINTREE UNION, Essex—Medical Officer for the Finchingfield District.
DOLGELLY UNION, Merionethshire—Medical Officer for the Dolgelly District.
KIRKMICHAEL, Dumfriesshire—Parochial Medical Officer.
LOGIE, Clackmannanshire—Parochial Medical Officer.
NARBETH UNION, Pembrokeshire—Medical Officer for District No. 3.
NORTHLEACH UNION, Gloucestershire—Medical Officer for the First Division of District No. 3.
PRESCOTT UNION, Lancashire—Medical Officer for the Woolton District.
RERRICK, Kirkcudbrightshire—Parochial Medical Officer.
ST. OLAVE UNION—Two Dispensers.
SUDBURY UNION, Suffolk—Medical Officer for the Sudbury or No. 1 District.
THORNBURY UNION, Gloucestershire—Medical Officer and Public Vaccinator for the Almondsbury District.
TRINITY, Gask, Perthshire—Parochial Medical Officer.
UPPER STRATHEARN COMBINATION POOR-HOUSE—Medical Officer.
WAKEFIELD UNION, Yorkshire—Medical Officers for the Chevet, Sandal-Magna, and Walton Districts.
WEST DERBY UNION, Lancashire—Medical Officer for the Childwall District.
WOODSTOCK UNION—Medical Officer for the Deddington No. 2 District.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

PAYMENT FOR LUNACY CERTIFICATES.

WE understand that Sir Dominic Corrigan is about to introduce a Bill on behalf of the Poor-law Medical Officers' Association of Ireland, for the purpose of obtaining payment for these gentlemen in all cases in which they may be called upon to examine alleged dangerous lunatics. It is a great hardship, that they should be expected to give skilled labour without "fee or reward". Such imposition of gratuitous duty in the case of the members of any other profession than the medical, would not for a moment be even dreamt of. This anomalous condition of affairs, however, we regret to say, is owing, in a very great measure, to the disunion and apathy that exist amongst us. The Dangerous Lunatics Bill should have been opposed at the outset; but no one appears to have known anything about it until it became an established fact. Now, however, that the medical profession has a champion such as Sir Dominic Corrigan in the House of Commons, and an energetic body of men such as the Poor-law Medical Officers' Association looking out for any measure that may affect their branch of the profession, we may hope that this state of things will improve. A good omen is afforded in the Lunacy Regulation Bill (Ireland); and it furnishes conclusive evidence that unanimity and energy constitute the real and, we may add, the only road to success. With regard to the Bill about to be introduced for the payment of medical officers in cases of dangerous lunacy, of course one of the principal considerations will be the probable amount to be paid and whence it may be derived. We understand that the latter is not yet settled, several schemes having been brought forward; but with regard to the amount, we can give a very close approximation as to what it will be annually, by referring to the Poor-law Commissioners' Report since the introduction of this Act. The average number of dangerous lunatics examined by the dispensary doctors during each of the last four years has been close upon 1000. If they received one guinea for each lunatic, 1000 guineas per annum for the whole of Ireland would not be a very extravagant sum to pay for such troublesome, responsible, and dangerous, duties. The Chairman of the Queen's County alone gets £900 a year for twenty-eight days' work; and why should the hardworked and ill-paid dispensary doctor alone not receive any remuneration for his skilled labour? Of these 1000 dangerous lunatics, 200 are annually examined by the medical officers of one Dublin dispensary, thus leaving but 800 for the other dispensaries in Ireland; and as the total number of dispensaries is close upon 800, there will be an average of one dangerous lunatic to every dispensary medical officer in Ireland. Now this at first sight may appear to be a very trifling thing; but it must be borne in mind that this one lunatic may involve the doctor who certified as to his lunacy in litigation, which may cause a pecuniary loss to the amount of several years' salary. We therefore draw particular attention to this subject, and trust that every Poor-law medical officer in Ireland will place himself in communication with the parliamentary representa-

tive of his county and press upon him the necessity of supporting this Bill; it is important to remember that the principle that medical men should be paid as well the members of other professions, for their time and services rendered is at stake, and that an opportunity is now offered of remedying a special grievance of our profession, which has been too often, in fact almost invariably, overlooked. When this Bill is brought forward—and we have reason to believe that no time will be lost in its introduction into Parliament—the Poor-law medical officers of Ireland may rely upon the hearty co-operation of the British Medical Association.

RESIDENT MEDICAL SUPERINTENDENTS LUNATIC ASYLUMS (IRELAND).

WE understand that the Irish medical superintendents of the district lunatic asylums are about to form themselves into a branch of the Poor-law Medical Officers' Association, whereby their representative will be a member of the Council of that body. As they number but twenty-three, no doubt they will gain additional strength by joining the medical officers, who number 1000; and if we may draw a conclusion from the energy displayed by that body in regard to Lord O'Hagan's Bill, we think that they will have no cause to regret this step.

VACANCIES.

BAILIEBOROUGH UNION, co. Cavan—Medical Officer and Public Vaccinator for the Shercock Dispensary District.
BOYLE UNION—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Gurteen Dispensary District.
CROOM UNION, co. Limerick—Medical Officer for the Workhouse; Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Croom Dispensary District.
KILRUSH UNION, co. Clare—Medical Officer for the Kilrush Dispensary District, and the Workhouse and Fever Hospital.
WATERFORD UNION—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Kilmeaden Dispensary District.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Tuesday, May 2nd.

VACCINATION.—Mr. T. Chambers asked the Secretary of State for the Home Department whether his attention had been called to the fact that the medical officer of the Privy Council had stated his opinion, in evidence before the Vaccination Committee, that the penalties of the Compulsory Vaccination Act were too severe, and that a nominal penalty first, and, in case of neglect, one penalty of twenty shillings, was all that ought to be enforced; and whether, in consequence of that opinion, the Home Secretary had given instructions to magistrates to refrain from inflicting repeated fines or imprisonment on successive prosecutions for the neglect of vaccination in the same case where parents had a conscientious objection to the practice. Mr. Bruce said the committee referred to was still sitting, and had not reported. He had not heard that any such expression of opinion had been given by the medical officer, and he rather had reason to believe that it had not; but, however this might be, he should not interfere with magistrates in regard to the administration of an Act of Parliament on the mere opinion of a medical officer.

VACCINATION RETURNS.—In answer to Mr. Jacob Bright, Mr. Bruce said that the Registrar-General, at his own instance and for the public information, obtained returns of the proportions of vaccinated and unvaccinated persons who died of small-pox in the metropolis; but after two months' experience he discovered that the returns were inaccurate and incomplete, and he, therefore, of his own authority discontinued the publication of them. With respect to the vaccinated there was no evidence of the completeness of the vaccination, and, further, the returns would be misleading unless something like the proportion of vaccinated to unvaccinated persons could be ascertained.

OBITUARY.

JOHN FAWCETT, Esq., SLIGO.

WITH extreme regret we (*Sligo Independent*) announce the demise of John Fawcett, Esq., head surgeon of the Sligo Rifles. The deceased was an experienced, skilful, and humane professional man, of kind and amiable character. He was much respected in Sligo, nearly every shop having shutters up, and a large number of persons attending at his funeral. He was buried with military honours, the band and staff of the Sligo Rifles attending, with a detachment of the 98th Regiment.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At an ordinary quarterly meeting of the College, on April 27th, the following gentlemen, having passed the required examinations, were admitted as members.

Dickinson, Edward Harriman, M.A. Oxford, M.B. and C.M. Edin., St. George's Hospital

Fotherby, Henry Isaac, M.D. Lond., Finsbury Square
Winslow, Lyttleton Stewart, LL.B. and M.B. Camb., Hammersmith

The following candidate, having conformed to the bye-laws and regulations, and passed the required examinations, was granted a Licence to practise physic, including therein the practice of medicine, surgery, and midwifery.

Reston, Henry, M.R.C.S., Dorset Street, Stretford, Manchester

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on May 2nd.

Bentley, Arthur James McDonald, Edinburgh (Edinburgh School)

Budd, William Alexander, Exeter (King's College)

Frean, Richard, Middlesex Hospital

Giles, Peter Broome, Staunton-on-Wye (University College)

Hall, Geoffrey Craythorne, Portsmouth (Guy's)

Kay, William Towson, Middlesborough (Newcastle School)

Lang, John Alfred Thomas, Stoke Newington (London)

Langridge, George Thomas, Bath (St. Bartholomew's)

Maberly, Frederick Herbert, Exeter (Birmingham School)

Marshall, John, Devonport (Guy's)

Moore, Edward William, Grove Park, Chiswick (St. Mary's)

Parrott, Edward John, Buckland, Herts (St. Mary's)

Parsons, Francis John Crane, Bridgewater (King's College)

Parsons, Joshua Frederick, Frome, Somerset (St. Mary's)

Percival, George Henry, Northampton (Guy's)

Pitts, Henry Yate, Walton, Lancashire (Liverpool School)

Pope, Harry Campbell, Tring, Herts (Liverpool School)

Pranker, Orlando Reeves, Langport, Somerset (St. Mary's)

Thomas, George Danford Phillips, Yeovil, Somerset (St. Mary's)

Thompson, William, Todmorden (University College)

West, John Gilby Uvedale, Alford, Lincolnshire (University College)

Williams, Henry, Gloucester (St. Thomas's)

Williams, Morgan, Cardiff (Manchester School)

Five candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their hospital studies for the usual period.

The next *primary* examination commences this day (Saturday).

UNIVERSITY OF GLASGOW.—During the session 1870-71, the following gentlemen have received degrees in Medicine and Surgery:—

Doctors of Medicine.—Andrew Armour, M.B., Scotland; Robert Bell, M.B., England; Robert de la Poer Beresford, Ireland; Charles James Borthwick, M.B., Scotland; Alex M. Buchanan, M.A., M.B., Scotland; Evan Cameron, M.B., Scotland; John Chalmers, M.B., Scotland; Joseph Coats, M.B., Scotland; John Dougall, M.B., Scotland; Donald Fraser, M.B., Scotland; James Gibb, M.D., Canada; William R. Haydon, M.B., England; George Hutchinson, M.B., Scotland; John Jack, M.B., Scotland; Archibald Logan, M.B., Scotland; John M'Laren, Scotland; James T. Moore, M.B., Ireland; Andrew Ritchie, M.B., Scotland; John Harris Ross, Scotland; Gopaul Chunder Roy, L.M.S., Calcutta, India; David Sloan, M.B., Scotland; Walter Sutherland, M.B., Scotland; Isaac Waddington, M.B., England; John Weir, M.B., Cape of Good Hope; Richard Wolseley, Ireland.

Bachelors of Medicine and Masters in Surgery.—John Aikman, Scotland; James W. Anderson, Scotland; James Brown, England; Daniel Carmichael, Scotland; John Cunningham, Scotland; James C. Dow, America; Robert T. Forbes, Scotland; William Grant, Scotland; Thomas B. Henderson, Scotland; John Holms, Scotland; William Lewis, Scotland; Thomas Lynn, Scotland; Alexander F. Mancor, Ireland; John N. Millar, Scotland; Hugh Miller, Scotland; John P. Muir, Scotland; James M'Closkey, Ireland; James F. M'Conaghy, Ireland; Charles M'Fadyen, Scotland; Charles K. M'Kellar, Australia; George M'Kerrow, Scotland; William F. M'Lean, Scotland; James W. Reid, Scotland; Robert Rodman, Scotland; Henry Scaulan, Scotland; Robert Sinclair, Scotland; John Sloan, Scotland; John Stuart, Scotland; George W. Thomson, Scotland; James Whitson, Scotland; David Wilkie, Scotland.

Bachelors of Medicine.—James Allan, Scotland; Archibald Craig, Scotland; John C. Douglas, Scotland; James Glendinning, Scotland; Alexander Lindsay, Scotland; James Lambie, Scotland; Robert N. M'Cosh, Scotland; Alex. M'Leland, Scotland; Hugh H. M'Naul, Ireland; Charles M'Pherson, Scotland; William Sneddon, Scotland; James R. Watt, Scotland; James B. Weir, Scotland.

Masters in Surgery.—David Bigger, M.D., Scotland; John L. Robertson, M.D., Scotland.

The following gentlemen were named as entitled to honours, to special commendation and to commendation, on account of distinguished merit at the various examinations for the Degree of M.D., M.B., and C.M.:—

I. *Honours.*—David Wilkie, M.B., C.M., Scotland; John Aikman, M.B., C.M., Scotland.

II. *Special Commendation.*—Gopaul Chunder Roy, M.D., India; Robert M. M'Cosh, M.A., M.B., Scotland.

III. *Commendation.*—Robert T. Forbes, M.B., C.M., Scotland; John N. Millar, M.B., C.M., Scotland; Charles K. Mackellar, M.B., C.M., New South Wales.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 27th, 1871.

Baumgartner, John Richard, Gorleston

Bernard, David Edward, Bristol

Burroughs, John Edward Buckland, Lee, Kent

Hood, Donald Wm. Charles, Guy's Hospital

Parsons, Joshua Frederick, Frome, Somerset

Percival, George Henry, Northampton

Stothard, James, Hull

Tudge, James McDougall, Hereford

Whitmarsh, John Lloyd, Chippenham

As an Assistant in compounding and dispensing medicines.

Saunders, Charles Price, Haverfordwest

At the Preliminary Examination in Arts, held at the Hall of the Society, on the 28th and 29th of April, 1871, 84 candidates presented themselves; of whom 26 were rejected, and the following 58 passed, and received certificates of proficiency in general education; viz., in the First Class, in the order of merit.

1. Frederick Newland Pedley and Frederick Montague Pope. 3. Percy George Kerans and Richard Burdett Sellers.

In the Second Class, in alphabetical order.

T. C. Barlow, G. E. Bearpark, G. A. Boodle, S. Braithwaite, W. M. Burgess, J. S. Clowes, W. W. Colborne, A. Wyatt Crane, H. L. Cracker, F. Howard Davis, George Davis, R. J. de Korte, J. Watson Ellis, H. W. B. Gamble, J. G. Gravely, H. Hawkins, Augustus V. Higgs, J. J. Hitchins, H. C. Holderness, Robert Howard, Wynne P. Hulme, George Charles Harop, E. F. McDonogh, Joseph H. Marsh, Walter F. Mayne, C. F. Newland, R. A. Newton, J. L. Parke, Henry P. Potter, Walter Pratt, Alfred Rawlings, Thos. Richards, Godfrey Charles Rôhrs, F. W. Romano, Robert Sagar, W. H. Satchell, Ferdinand Clarence Smith, Gerard Henry Smith, Tom Smith, W. Ernest Snock, Thomas Standly, Bailey Strange, Alfred Stillwell, D'Arcy Sugden, Thomas S. Sutton, Horace Swarder, Arthur Thomas, Harold Thompson, William Henry Vickerstaff, Frederick Joseph Waldo, George James Ward, James Warner, Francis Henry Wakes, and Henry Wright.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BIRMINGHAM DENTAL HOSPITAL—Consulting Physician; Consulting Surgeon; Extra Dental Officer; Chloroformist.

BOURNEMOUTH DISPENSARY—Physician.

CHELTEMHAM GENERAL HOSPITAL and DISPENSARY—Resident Surgeon to the Branch Dispensary.

CUMBERLAND INFIRMARY, Carlisle—House-Surgeon.

EAST RIDING OF YORKSHIRE LUNATIC ASYLUM, Beverley—Medical Superintendent.

HUDDERSFIELD INFIRMARY—Assistant House-Surgeon.

LITTLEMORE PAUPER LUNATIC ASYLUM, near Oxford—Resident Assistant Medical Officer.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE—Demonstrator of Practical Physiology and Histology.

LONDON FEVER HOSPITAL—Assistant-Physician.

RIPON DISPENSARY—House-Surgeon and Resident Dispenser.

ROYAL ASYLUM OF ST. ANNE'S SOCIETY—Medical Officer.

ROYAL KENT DISPENSARY, Greenwich—Resident Medical Officer.

ST. MARY'S HOSPITAL, Paddington—Physician-Accoucheur.

ST. THOMAS'S HOSPITAL—Physician and Assistant-Physician; Surgeon and two Assistant-Surgeons.

SOUTH STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Physician; Dispenser.

STOCKWELL FEVER HOSPITAL—Temporary Assistant Medical Officer.

SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds—Physician.

WORCESTERSHIRE—Analyst for.

[For Poor-law Vacancies see Poor-law Department.]

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BRIGGS, G. C., Esq., appointed Resident Accoucheur to King's College Hospital.

HOPE, William, M.D., appointed Physician to the In-patients of Queen Charlotte's Lying-in Hospital, Marylebone Road.

PARSONS, F. J. C., L.R.C.P., appointed House-Physician to King's College Hospital.

ROCHE, E. B., Esq., appointed House-Surgeon to King's College Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

JAMES.—At Perry Vale, Forest Hill, on March 23rd, the wife of *Alfred James, M.D., of a daughter.

TURLE.—On April 30th, at Cornwall Villa, Finchley Road, the wife of James Turle, M.D., of a son.

MARRIAGES.

BOYCOTT, Thomas, M.D., of Montagu Square, to Grace Agnew, youngest daughter of the Rev. B. HAWTHORN, of Stapleford, Cambridgeshire, on April 18th.

HICKS, Charles C., M.D., of Dunstable, to Agnes Nugent, daughter of Frederick AYRTON, Esq., of the Middle Temple, at St. Thomas's, Marylebone, on April 29.

DEATHS.

BIRCH, De Burgh, Esq., late Madras Medical Service, at Clifton, on April 28th.

***WOOD**, Robert, Esq., Surgeon, at Ashton-under-Lyne, aged 60, on May 2nd.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY... St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic Hospital, 2 P.M.

SATURDAY St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Adjourned Discussion on Mr. Hutchinson's Cases of Vaccino-syphilis; Dr. Elam, "On Partial Acute Idiopathic Cerebritis."

WEDNESDAY.—Epidemiological Society, 8 P.M. Inspector-General Lawson, "On Cholera in Ships."—Royal Microscopical Society.

THURSDAY.—Royal Society.

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Cooper Forster, "On a Case of Naso-pharyngeal Polypus"; Dr. Buzzard, "On a Case of Cervico-brachial Neuralgia treated by the constant Current"; Mr. J. Warrington Haward, "On Cases of Distension of the Antrum of Highmore"; Dr. Anstie, "On a Case of Syphilitic Trigeminal Neuralgia, with loss of Smell and Taste, and Paralysis of Ocular Muscles."—Royal Astronomical Society.—Linnæan Society.

NOTICES TO CORRESPONDENTS.

ALL *Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.*

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with *halfpenny* stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

THE circular forms shall be prepared for Mr. Bartleet, Birmingham.

WE are much obliged to Mr. Harvey, Vienna, for his communication, and shall hope to hear further from him. We shall be glad to receive and act on his suggestion.

WE are much indebted to Dr. G. E. Day (Torquay) for his prompt and kind courtesy.

ROYAL COLLEGE OF SURGEONS.—The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the candidates under examination for the diploma of membership of the College on the 14th inst.

1. Pyæmia: its causes, symptoms, effects, and treatment.—2. Ligature of the posterior tibial artery in the lower third of the leg. Specify the extent, direction, and situation of your incision—the parts necessarily divided or to be avoided in the operation. Give the precise relations of the artery where tied.—3. Describe the various forms of inflammation which affect the conjunctiva; their symptoms, causes, and appropriate treatment.—4. Mention in order the several tendons around the knee-joint; and give the relations of each to adjacent parts.—5. Describe the symptoms, progress, and treatment of fracture of the spine in the cervical and in the dorsal regions, and state the causes of death in such cases.—6. How may the production of "lymph" as the result of inflammation be accounted for? Describe its minute structure in its different forms, and the changes they may undergo.—The following were the questions on the Principles and Practice of Medicine on April 15th:—1. A robust man, 45 years of age, is suddenly seized with a violent pain in the abdomen, attended with sickness, shivering, and tendency to collapse. What may be the causes of the attack, and how would you treat it?—2. What do you understand by the term croup? Describe the complaints included in it, and their treatment.—3. Enumerate the diuretic medicines contained in the *British Pharmacopæia*, mentioning their special uses and doses.

MASS OF HAIR TAKEN FROM THE HUMAN STOMACH.

SIR,—At the last meeting of the Clinical Society (April 28th), I made some remarks about a large mass of hair removed from the human stomach, and now to be seen in the Museum of the Royal Berks Hospital at Reading. Through the kindness of Mr. G. May, jun., I am able to tell those who are interested in this matter, that this mass of hair weighed twenty-six ounces; and a full report of the case, with comments thereupon by Mr. May, can be found in the BRITISH MEDICAL JOURNAL of December 28th, 1855. I am, etc., JOHN C. THOROWGOOD.
61, Welbeck Street, W., May 1871.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

DRUGGISTS AS ASSISTANTS.

A MEMBER asks the following questions:—Is it professional etiquette in a surgeon residing seven or eight miles away to employ the druggist of the village, in which qualified men reside, as his local assistant, to meet him in consultation, to leave him in charge of patients, and to supply the necessary certificates of death in the event of persons, unseen by a medical man, dying under his treatment? [This practice is clearly very undesirable and improper.]

Is the certificate a true or a false one that states, in the usual form, "I attended —, and he died of such and such a complaint"; adding, in a note, "I did not see him during life, but he was very properly attended by my assistant"—the druggist in question? If such practices be carried out by members of our Association, what is the best mode of dealing with them?

[In the first instance, it would, we think, be desirable to bring the facts to the notice of the Registrar-General, and request his opinion as to the legality and sufficiency of such a certificate.]

THE ST. ANDREW'S DEGREES.

WE have had a good deal of correspondence lately on this subject; and this week the following paragraph has been forwarded to us by one of our associates, with a request for publication. We have pleasure in complying with this request, if it be only as an illustration of the various aspects in which the same series of facts are apt to be regarded from different points of view.

"At an extraordinary meeting of the Examiners for Degrees at St. Andrew's University, Mr. Henry Harris, F.R.C.S., of Redruth, having conformed to the bye-laws and regulations, and passed the required examination, 21st and 22nd of April, was granted the diploma of Doctor of Medicine, with all the privileges connected therewith in the practice of medicine. This degree cannot be conferred, under the section, to a greater number than ten in any one year."

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, April 29th; The New York Medical Record, April 20th; The Boston Medical and Surgical Journal, April 20th; The Madras Mail, Feb. 20th; The Shield, April 29th; The Philadelphia Medical Times, April 12th; The Philadelphia Medical Independent, April 15th; The Brighton Guardian, May 3rd; The Shrewsbury Chronicle, April 21st; etc.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Alexander Fleming, Birmingham; Mr. William Mac Cormac, London; The Registrar of the University of London; Mr. H. R. Swanzy, Dublin; Dr. R. W. Egan, Dublin; The Secretary of the Epidemiological Society; The Secretary of the Royal Medical Benevolent College; L.R.C.P. Lond.; Messrs. James Coxeter and Son, London; Dr. Broadbent, London; Mr. R. S. Fowler, Bath; Mr. T. Watkin Williams, Birmingham; The Secretary of the Royal Medical and Chirurgical Society; Dr. Day, Torquay; Mr. J. Harvey, Josefstadt, Vienna; Mr. Acton, London; Mr. J. H. Lee, London; Dr. W. H. Day, London; Mr. Fleischmann, Cheltenham; Mr. Herbert Morgan, Lichfield; Mr. Nelson Dobson, Bristol; Mr. J. H. Barnes, Liverpool; Dr. Lloyd, Barmouth; Dr. Cordwent, Taunton; Mr. J. Weaver, Wolverhampton; Dr. Hardie and Mr. Braddon, Manchester; Dr. Druitt, London; Dr. J. Rogers, London; Surgeon-Major Atchison, London; Mr. Walter Green, London; Mr. D. Dalrymple, M.P., London; Mr. T. H. Bartleet, Birmingham; Dr. Bcales, Congleton; Dr. William Hope, London; Dr. Savage, Alston Moor; Mr. Bartleet, Birmingham; Mr. Spencer Watson, London; etc.

LETTERS, etc. (with enclosures), from:—

Dr. George Johnson, London; Dr. C. Handfield Jones, London; Dr. J. Crichton Browne, Wakefield; Dr. Seaton, Surbiton; Dr. T. L. Brunton, London; Dr. J. Hughlings Jackson, London; Dr. Thorburn, Manchester; Dr. Althaus, London; Dr. H. F. A. Goodridge, Bath; Dr. Kelly, Taunton; Dr. Thorowgood, London; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Our Dublin Correspondent; The Secretary of the Royal College of Physicians; Dr. C. J. Gibb, Newcastle-upon-Tyne; Our Glasgow Correspondent; Dr. Tilbury Fox, London; Dr. P. T. Lyster, Athlone; Mr. H. W. T. Ellis, Crowle Hall, Doncaster; Dr. Thorne Thorne, London; Dr. J. Watt Black, London; Dr. Walshe, London; Our Manchester Correspondent; The Secretary of the Clinical Society; Mr. C. Roberts, London; Dr. H. Franklin Parsons, Beckington; Dr. Rumsey, Cheltenham; Mr. Gant, London; Mr. A. C. Kingstone, Morstown, Longford; Mr. Henry Arnott, London; Dr. Angus Fraser, Aberdeen; etc.

BOOKS, ETC., RECEIVED.

Remarks on Diabetes, especially with reference to Treatment. By William Richardson, M.A., M.D. London; 1871.

The Sixth Annual Report of the Glamorgan County Lunatic Asylum for the year 1870. Cardiff: 1871.

Notes and Recollections of an Ambulance Surgeon: being an account of Work done under the Red-Cross during the Campaign of 1870. By William Mac Cormac, F.R.C.S., M.A., M.R.I.A. London: 1871.

Temperature Variations in the Diseases of Children. By William Squire, L.R.C.P. London: Churchill. 1871.

On Spermatorrhæa: its Results and Complications. By J. L. Milton. London: 1871.

Rheumatism and Rheumatic Gout treated on Antiseptic Principles. By J. Dewar, M.D. Edinburgh: 1871.

LECTURES

ON THE

EXPERIMENTAL INVESTIGATION OF THE ACTION OF MEDICINES.

BY T. L. BRUNTON, M.D., D.Sc.,

Lecturer on Materia Medica at the Middlesex Hospital.

II.—ACTION OF DRUGS ON PROTOPLASM: GENERAL DIRECTIONS FOR EXPERIMENTAL INVESTIGATION.

Modes of Experimenting.—Caution.—Action of Drugs on Protoplasm.—Action on Vibriones and Bacteria.—Contagium Vivum.—Action on Fungi; on Fermentation; on Putrefaction; on Oxidation; on White Blood Corpuscles; on Inflammation.—Action of Gases.—Steps of an Investigation.—Administration of Drugs.—Observation of Effects.—Interpretation of Results.—Minimum Fatal Dose.—Various Channels of Administration.—Excretion.—Mode of securing Animals.—Instruments required.—Mode of making Cannulae, T-tubes, and Pens.—Narcotising Animals.—Action of Narcotics.—Introduction of Cannula into Vessels.—Injection of Fluids.—Division and Irritation of Nerves.—Artificial Respiration; in Mammals; in Frogs.—Administration of Gases or Vapours.

GENTLEMEN,—In experimenting on the effect of drugs, our great object must be to localise their action—to be able to say with certainty, This is the organ on which this medicine acts, and such and such is the action which it exerts upon it. There are two ways in which this might be done.

1. We might give the medicine to animals of all kinds, from those consisting of one simple cell upwards to the highest forms of life, and mark how its action became modified as we advanced farther and farther from the simple mass of sarcode, and organ after organ became differentiated and developed. Unfortunately, however, the knowledge of comparative anatomy and physiology which is required to interpret the effects that we might thus obtain is so great, and possessed by so few, that this method is at present of little use.

2. We might take a highly organised animal, not very unlike man in its general structure, and, by operative procedures, allow the medicine to act now on one and now on another part of the body, but never on all at once, till we find out those parts for which it has a particular affinity.

This second method is the one which we chiefly employ, but sometimes we may very conveniently use them both, as in the case of protoplasm, the physical basis of life.

CAUTION.—As I intend not only to describe the ways in which experiments on the action of medicines are to be performed, but also to give examples of the conclusions drawn by various observers from the experiments which they have made and of the way in which these conclusions have been applied, I take this opportunity of strongly warning you, once for all, that you must distinguish very carefully between the observations actually made by any one and the conclusions which he draws from them. Observations on the effect of a drug may be correct, and yet the theory of its mode of action be erroneous; and both of these may be right, and still the proposed application of it to a disease may be valueless from ignorance of its real pathology. All observations, too, are not to be taken as facts: they must be confirmed by frequent repetition either by the first observer himself or by others before they can lay claim to this title. Their value depends to a great extent on the observer, and is in proportion to his power of seeing correctly what is before him, and the exactness of his description of what he has seen. Perhaps erroneous statements are due in great measure to the results of experiments not being noted at the time when they were done, but written down from memory some time afterwards. When this is the case, they lose in a great measure their claim to the name of observations, and they become merely thoughts or ideas of the observer. *All experiments should be noted down at the time when they are performed; and if they are not, the time which elapsed before they were written should be stated, that future workers may know what value to attach to the observation, and not be put to the unnecessary trouble of disproving it if it be erroneous.* Before beginning an investigation, it is convenient to write out the questions which we propose to ourselves, and to note down what experiments will be necessary to answer them. We are thus less likely to make experiments at random, and to waste time without coming to any certain conclusion.

ACTION ON PROTOPLASM.—We may study the action of drugs on

protoplasm either in unicellular organisms like the Infusoria, in cilia, in white blood-corpuscles, or in those minute bodies—bacteria and vibriones—to which attention has of late been so much directed, and which, despite their minuteness, possess so much importance from their power of producing fermentation and decomposition in dead organic matter, and not improbably of causing disease in living beings. For the purpose of studying it in Infusoria, we prepare an infusion of hay some days before we wish to experiment, and a solution in water of the drug which we wish to investigate. We then heat a piece of glass tubing in the middle, draw it out and cut it across, so as to obtain two little pipettes, which will deliver drops of nearly equal size. From one of these we let fall a drop of infusion of hay on a glass slide, and examine it under a low power of the microscope without a covering glass. We then let fall a drop of the solution of our drug upon it, mix the two drops well with a glass rod, and again examine them microscopically to see whether or not the infusorial animalcules are still moving. If they be moving, and continue to do so for some time, we prepare a stronger solution of the drug; but if they have completely stopped when we looked, we make a weaker one, and again mix a drop with one of hay-infusion, repeating the experiment till we have got a solution of such a strength that a slight movement of the animalcules can be observed just after mixing the drops, but ceases almost immediately, and cannot be brought back by adding water. We can then compare the action of different drugs by observing of what strength the solution of each must be, in order to produce precisely this effect.

Professor Binz of Bonn has found in this way that certain substances, such as common salt, chlorate, chloride and bromide of potassium, alum, etc., appear to stop the movements of infusoria by altering the amount of water which they contain, as strong solutions cause them to shrivel at first, and then to swell up and become motionless. Weaker ones make them swell likewise; but their effect at first is different, as they do not shrivel up the animals, but, on the contrary, render their movements more lively.

Other substances kill them in a way which we do not understand, stopping the movements at once without producing any apparent change in the animal's body to account for it. The most active of these substances are chlorine, bromine, corrosive sublimate, iodine, permanganate of potash, and creasote. After these comes quinine, less powerful than they, but far more so than other organic alkaloids. Even strychnia, so fatal to higher animals, has barely one-fourth the power over these lower organisms which is possessed by quinine, a substance which is dangerous to mammals only in such large doses that we are accustomed to look upon it as a remedy, but hardly at all as a poison.

ACTION ON VIBRIONES AND BACTERIA.—If a piece of boiled meat or white of egg be allowed to lie in water for a few days, or a little of Pasteur's solution be exposed in a glass, the fluid becomes milky, and vibriones and bacteria are formed in large numbers. Pasteur's solution is made by dissolving ten grammes of sugar, five decigrammes of tartrate of ammonia, and one decigramme of yeast-ash, in one hundred cubic centimetres of water; or a little white of egg may be added to the hay-infusion, when the infusoria soon disappear, and it remains full of bacteria and vibriones. A drop may now be taken, diluted with another drop of water, and the action of drugs on vibriones examined in the same way as on infusoria.

In this way it is found that the same substances which kill infusoria also prove destructive to vibriones and bacteria: and if they kill these organisms when outside the animal body, they should do likewise when they are inside, and thus cure diseases which may be caused by their presence. Now, bacteria have been said to be the cause of malignant pustule, and they are at all events frequently present in large numbers in the blood of animals affected by it, and their destruction can hardly fail to be advantageous. We are, therefore, not at all surprised to learn that Bouley and the French Commission found (*Compt. Rend.* lxxiii, 82) that, while all animals which they inoculated with this disease died when left to themselves, four recovered out of five to which they had given carbolic acid, and that other cases treated in the same way by others gave a like favourable result. The striking correspondence between the effect actually produced on the disease and that which we would expect from its action on bacteria, which we suppose to be the cause of it, seems also to be an evidence of the truth of the hypothesis that bacteria are the cause of the disease, and that carbolic acid cures it by killing them. Before we accept this as a fact, however, we should test it by adding to one portion of the blood of a diseased animal, carbolic acid in the same proportion as it was likely to be present in the blood of the one cured, and comparing it with another portion to which none had been added, and see whether the amount was sufficient to have any action on the bacteria. If it were not sufficient, we should have to look for some other action of the acid to explain its effect.

As cases of malignant pustule or other diseases in which bacteria and vibriones are found in the blood happily do not present themselves every day, Binz produced fever in dogs artificially by injecting infusion of hay or putrid animal matter into their veins, and then tested the action of quinine by injecting it either at the same time or shortly afterwards. The quinine diminished the effect of the infusion, but not to the extent which he expected; and this he thinks due to the infusion not containing vibriones alone, but gases and other products of decomposition, whose action would not be affected by quinine. Whether this be so or not, must be decided by further experiments. He believes also that hay-fever is due to vibriones; and he cured Helmholtz, who had suffered from it for several years, by injecting a solution of quinine into his nostrils.

ACTION ON FUNGI.—When spores of the ordinary penicillium or mould-fungus are thrown into Pasteur's fluid or syrup, they grow and develop new spores. Two portions must be taken, and the drug to be tested added to one and none to the other, and the amount of it necessary to prevent the formation of spores must be noted. If carbolic acid, corrosive sublimate, or very strong solutions of quinine, be added to them, their growth is prevented.

ACTION ON FERMENTATION.—As butyric fermentation depends on the presence of vibriones and alcoholic on the yeast-fungus, we should expect that substances which kill these would prevent fermentation. To test this, two glass-tubes or flasks are filled with a mixture of milk-water, grape-sugar, and chalk (from which carbonic acid will be set free by the lactic acid formed), or with a solution of grape-sugar or yeast. To one of them a certain amount of the substance to be tested is added, and both are then inverted over mercury and kept in a warm place for several days. The amount of gas developed is then measured; and, if the addition of the substance have hindered the production of gas, we know that it has hindered fermentation in the same proportion. It has thus been found that quinine, amounting to $\frac{1}{180}$ th part of the mixture, completely stopped the development of vibriones or the production of gas; and other substances have a similar effect.

As many cases of indigestion, acidity, flatulence, vomiting, and summer diarrhoea, more especially in children fed by hand, are most probably due to the fermentation of starchy and saccharine food caused by vibriones, Binz thinks that creasote, quinine, etc., are serviceable in their treatment by stopping this. As it is the local action that is wanted, the longer the medicine remains in the intestine before being absorbed, so much the better will its effect be; and thus the greater benefit derived from bark than quinine in some such cases might be explained.

ACTION ON PUTREFACTION.—The antiputrescent action of drugs is tested by putting a square of boiled white of egg into each of two vessels containing water and setting them in the sun. To the liquid in one vessel the drug is added, and the rapidity with which the edges of the square of white of egg on it become decomposed and soft is noted and compared with that in the other vessel. Instead of white of egg, a piece of meat or bread may be used. The relative power of different drugs in stopping putrefaction does not always correspond to the ideas which we would be inclined to form; for who would think that quinine would be more powerful than such antiseptics as creasote, chloride of lime, or arsenic? and yet such is said to be the case. So powerful is quinine, that a piece of meat placed in a solution of $\frac{1}{2}$ per cent. of the sulphate, with a little dilute acid, remained in summer without decomposition till the fluid was dried up.

ACTION ON OXIDATION.—If fresh leaves of lettuce or dandelion are triturated with five or ten times their weight of water, with free access of air, the fluid filtered, and fresh guaiac tincture added to it, a blue colour is produced, showing that ozone is present in it. To test the action of a drug on the formation of ozone, two portions of the filtered fluid are put in test-glasses, and the drug added to one. Both are allowed to stand for one or two hours, with occasional shaking, fresh guaiac tincture is dropped cautiously into both, and by the greater or less depth of blue produced in each fluid we judge of the amount of ozone present in each. In this way it is found that quinine diminishes or stops the formation of ozone in these fluids, and at the same time the little protoplasma-granules with which they abound are rendered motionless and altered in appearance. There seems to be some connection between these protoplasma-granules and the formation of ozone, as the stoppage of the one runs parallel with the alteration in the other.

Quinine seems to have the power of diminishing oxidation within the body as well as out of it, since when injected into the blood it lessens the excretion of urea and diminishes the temperature both in health and disease during life, and hinders its rise after death; and this action is apparently not due to nervous centres regulating temperature, or to changes in the circulation allowing quicker cooling by the skin.

ACTION ON WHITE BLOOD-CORPUSCLES.—To examine this, we take a drop of blood from the finger, put it on the under surface of a thin glass, and lay it over the opening in Stricker's warm stage (Stricker's

Histology; New Sydenham Society's *Translation*, p. 13), and examine it with a high power of the microscope, such as Ross's $\frac{1}{2}$ or Hartnack's No. 10, at a temperature of 98° F. After satisfying ourselves that the white corpuscles are in active motion, we take a solution of the drug in fresh serum, or in half per cent. solution of common salt; mix a drop of it with the blood and examine again. Or we may use Max Schultze's warm stage, which consists of a flat piece of brass covering the stage of the microscope, and having a long arm projecting at each side and a thermometer in front. When a lamp is placed under one or both arms, they conduct the heat to the middle part on which the object lies, and thus warm it to any desired temperature. The drop of blood must be placed on a piece of glass three and a half inches long and two and a half broad, which is then laid on the warm stage. The drop is next covered by a thin glass, and over all is put the lower part of a lamp-cylinder, through whose upper end the tube of the microscope slides, and round whose interior is put a piece of moist blotting-paper to prevent evaporation from the blood. The drug is applied as with Stricker's stage. Solutions of corrosive sublimate and veratria, even in very minute quantity, stop the movements of the white blood-corpuscles, but neither is so active as quinine. Strychnia is rather less powerful than any of these, and many other alkaloids much less so.

ACTION ON INFLAMMATION.—During inflammation, the white blood-corpuscles are very active, and crawl through the walls of the capillaries in much greater numbers than usual. It is, therefore, interesting to inquire what will be the effect on this of any drug that stops their motions. For this purpose we curarise a frog and lay it on a large plate of cork with a hole at one side, and another piece of cork half an inch high at the other. We fix the body of the frog to the raised piece, open its abdomen with a pair of scissors, draw out the intestines, and fasten the mesentery with very fine pins over the hole. In an hour and a half or two hours afterwards, white corpuscles come rapidly out of the vessels and wander over the field. We may then inject our drug into the circulation or apply it locally to the mesentery.

Binz states that, when he injected quinine into the circulation, the number of corpuscles in the vessels became diminished, and they ceased to wander out, while those already out continued to wander further, so that, instead of being evenly distributed over the field, they left a clear space round the outside of the vessel, in which few were to be seen. If, on the other hand, it be applied locally, the corpuscles which are already out stop moving, while those in the vessel continue to migrate, and thus, instead of a clear space, a dense accumulation of corpuscles forms round the vessel. In order to produce this effect, $\frac{1}{20000}$ th to $\frac{1}{10000}$ th of the animal's weight of quinine is necessary; and, if it were given to a man weighing 150 lbs., in order to stop the exit of corpuscles from the vessels in such a disease as peritonitis, three or four drachms of the medicine would require to be given within a short time. Binz's observations as to the effect of quinine on the white corpuscles have been confirmed by Martin, but have been denied by Schwalbe, so that farther investigations on this point are very desirable.

ACTION OF GASES.—This is examined by putting the cells to be examined on Stricker's warm stage, and bringing the gas into contact with them in the manner described by him (Stricker's *Histology*, Sydenham Society's edition, p. 8).

STEPS OF AN INVESTIGATION.—The animals which we chiefly use in experiments are frogs, rabbits, guinea-pigs, and dogs. In investigating the action of a drug, we examine—

1. What the symptoms are which a large dose produces.
2. Taking the most prominent symptom, we inquire (a) On what organ does the production of this symptom depend? (b.) How has it been affected by the drug? (c.) Has this affection been primary or secondary?
3. We examine other organs which we think may have been also affected.

ADMINISTRATION OF DRUGS.—To examine the general effect of a drug, we weigh the animal and then give it a large dose in our first experiment, in order to get exaggerated symptoms. It may be given by the mouth or by subcutaneous injection. In frogs, the substance may be injected either under the skin of the back or into the abdominal cavity. In rabbits, etc., it is most conveniently injected under the skin of the flank. In guinea-pigs, the abdominal parietes are very thin; and, if we wish to compare experiments with different doses, care must be taken not to push the point of the syringe into the abdominal cavity, as the absorption will be then more rapid, and the same dose produce a greater effect. If we wish to give the medicine by the mouth, we either put it well back on the root of the tongue and then hold the animal's jaws together till we think it has swallowed it, or we put a perforated cork between its teeth, push an elastic catheter through the hole in the cork down the œsophagus into the stomach, and inject the drug in solution through the catheter. Orfila used to introduce the drug into an opening in the œsophagus, which he then ligatured to prevent vomiting;

but since subcutaneous injection was introduced this method is rarely employed.

OBSERVATION OF EFFECTS.—After the drug has been administered, we allow the animal to move freely about, but prevent frogs from escaping by covering them with a large bell-jar. We then see whether the animal is restless or disinclined to move; whether its movements are perfectly performed or unsteady; whether or not its legs seem weak and paralysed, or convulsive movements or involuntary twitchings be present; whether its heart-beats or pulse, and respirations, are quick or slow, strong or weak; whether there is vomiting or purging diuresis; salivation; or dryness of the mouth; flow of tears, or dry conjunctiva; and whether the pupil be contracted or dilated. If the animal seem asleep, we pinch it to ascertain if reflex action continue after voluntary motion is gone; and if respiration cease, we ascertain if the heart still continue to beat. As soon as possible after death, we open the animal and see if the heart still be beating. If it have stopped, we note whether its cavities are full or empty, its walls flaccid or firm, and try whether it will still contract or not on pinching or scratching it, or on irritating it by an electric current. We observe whether the veins are turgid or empty, the lungs pale or congested, the stomach and intestines quiet or in active peristaltic movement, the spleen large or contracted, the bladder full or empty; and the urine may be tested for sugar.

INTERPRETATION OF RESULTS.—If we find in the course of these experiments that voluntary motion is increased or lessened, we may naturally conclude that the activity of the cerebrum is increased or diminished, unless the increase of motion should depend on pain, or its diminution on impairment of the motor apparatus. Unsteady movements, paralysis or convulsions, impaired reflex action on pinching, or stoppage of respiration before the heart, point to the spinal cord, to the nerves, or to the muscles; while quick or slow, strong or weak pulse, or stoppage of the heart before the respiration, point to the vaso-motor system or cardiac nerves; increased or diminished secretion, to secreting nerves; and full or empty bladder, and diminished or increased peristalsis, to the motor nerves of the bladder or intestine. We then try the effect of a small dose, and note in what respects it differs from that of a large one. We thus ascertain in a general way what the organ is, which is chiefly acted on by any drug, and afterwards proceed to investigate the nature of the action by a farther series of experiments.

MINIMUM FATAL DOSE.—If the drug be poisonous, we then try to ascertain the minimum fatal dose. For this purpose we weigh an animal and inject into it a dose which we think will not prove fatal, wait a short while, and then inject more till death is produced. We then reckon how much of the drug has been injected for every pound weight of the animal. We take another animal, and inject into it *at once* a quantity which will be somewhat smaller for its body-weight than that given to the first. The reason why a somewhat smaller quantity should be taken is, that some time was allowed in the former experiment for the excretion of part of the poison between each dose. If this amount prove fatal, we must give a still smaller quantity to another animal; but, if not, we must give more till we find the smallest quantity which will kill.

VARIOUS CHANNELS OF ADMINISTRATION.—The next point to be determined is, whether the effects are the same when given by the mouth or rectum, or other mucous surfaces, as by subcutaneous injection. If we should find, as Bernard did with curare, that a substance which is active when injected subcutaneously or into a vein, has no effect when introduced into the mouth, rectum, eye, or bladder, we must determine whether this is due to want of absorption or to decomposition of the drug by the secretions with which it becomes mixed. This is done by mixing it with these secretions, such as urine or gastric juice, allowing it to stand some time at the temperature of the body, and then injecting the mixture subcutaneously, and observing whether the usual effect is produced or not; or by ligaturing the ureters to prevent excretion.

EXCRETION.—Lastly, we examine in what manner it is excreted from the body. As most solids are excreted by the kidney, we generally restrict this process to evaporating the urine, or testing it either chemically or by injecting some of the extract into another animal.

[To be continued.]

DR. H. O. STEPHENS, having resigned as Resident Medical Superintendent of the Bristol Lunatic Asylum, Stapleton, has obtained from the Town Council of Bristol a retiring allowance of £250 per annum upon the recommendation of the Committee of Visitors and the Commissioners in Lunacy, the latter of whom spoke in high terms of Dr. Stephens's "devotion to his duties and the success which had attended his efforts."

CLINICAL LECTURE

ON A

CASE OF STRUMOUS OPHTHALMIA, AND ON ONE OF SCIATICA.

By C. HANDFIELD JONES, M.B.CANTAB., F.R.S.,
Physician to St. Mary's Hospital.

GENTLEMEN,—The two cases which I bring before you to-day may seem sufficiently diverse; yet I think, on a little consideration, you will see that the differences are superficial; and that, beneath an external dissimilarity, there exist some very real resemblances. The chief reason, however, why I have put them together, is to afford me the opportunity of saying a few words as to the management of tedious and difficult neuroses.

CASE I.—E. W., aged 10, admitted June 19th, 1869, was transferred to my care July 5th, 1869. She stated that she had suffered with her eyes since she was twelve months old. They had been cured two or three times, and had again become diseased. She was in St. George's Hospital for seven months in the summer of 1868, and, when discharged, she could see pretty well. This improvement continued four months, and then her eyes passed into their present state. She said that a cataract was removed from each eye while in St. George's. She had previously been in Moorfields Hospital. She suffered from toothache at times, but had no other special ailment. There were two or three markedly decayed teeth, but she ate her food fairly well. Her photophobia was extreme. When I first saw her, she sat before me with both eyes bandaged up thickly, and also her hands over her eyes. She affirmed that she saw light when her hands were removed. The first few days after she came in, she used to lie with her head buried in the bedclothes; she did not do this now. She was, of course, in a darkened ward. She never opened her eyes day or night. She did not sleep soundly at night, but often woke up. Much lacrymation occurred. When questioned, she said distinctly that it was the light that hurt her eyes; she was more comfortable in the dark. The urine was pale, feebly acid, not albuminous; pulse 123, weak.

September 10th. She was put under the influence of chloroform, but it was with difficulty that anaesthesia was produced. The lids, on being everted, were found non-granular; their lining membrane very red. An opacity was found on the left cornea; none on the right.—Nov. 5th. By this date she had left off her shade, and walked about all day without it. There was much contraction of the corrugator supercilii muscles, much frowning and lacrymation; the latter occurred especially when she was questioned by myself or clerk, but not when the ward-sister spoke to her. She also sneezed a great deal. By December 4th, she had improved much in general condition, had got fat and strong, and went then to a convalescent home at Hanwell. From this she returned in a month greatly improved. She looked up steadily, and faced the light quite well. There was nothing apparently amiss, except some tinea tarsi of the right side. She remained now as an out-patient till March 19th, when her eyes were becoming irritable again, as she was ill fed and cared for. There were moderate opacities on both corneae; nevertheless, she could make out a pattern of leaves and sprigs etched on glass. Since then I have not seen her.

The amount of improvement obtained in this case was very great, but it came very slowly, especially at first, and was interrupted by frequent relapses. Again and again one felt inclined to give up the treatment in despair. But the result proved that, with fair play, a cure was perfectly feasible, and that perseverance in the use of appropriate means was all that was requisite. I should weary you if I enumerated all the remedies that were employed; I need only say that they were nutritious food and the ordinary stimulants and tonics, frequently varied, and aided to some extent by local applications. Of the latter, I think free douching with cold water had the best effect. Instillation of strong solution of sulphate of atropia did good for a few days only; nor did aconite lotion or chloroform-vapour avail perceptibly. Some temporary benefit was obtained by the extraction of some decayed teeth, but it was of short duration. A fair trial was given to bromide of potassium when the disorder was at its worst, but it had no good effect; neither had small doses of potassio-tartrate of antimony, which are much praised by Dr. Mackenzie. When convalescence was fairly commenced, much good was done by change to a purer air; and I doubt not that this would have been of great benefit at an earlier period. The nutritious diet was of course a necessity; but I by no

means think that it alone would have sufficed for recovery. The moral of the history is self-evident; but I will again refer to it at the close of the lecture.

Let me now direct your attention to the point which especially characterises the case; viz., the existence of a condition of nervous tissue termed hyperæsthesia—a state unquestionably of excitement, but of excitement, as it has been truly said, without power. *A priori*, we should have supposed that a weak nerve-tissue would have been quiescent and languid, as indeed it often is; but you ought to be fully aware that there is no wilder, intenser excitement than that which is based upon debility and is wholly independent of increased blood-flow to the affected part. In the so-called scrofulous ophthalmia we have an excellent example of this state of hyperæsthesia, whether we regard, according to the modern view, the filaments of the fifth nerve distributed to the cornea to be the seat of disorder, or, according to the older (which I confess I prefer), the retina.

One essential point as regards treatment seems to be whether the photophobia is to be regarded as a primary affection of the retina, analogous to cutaneous hyperæsthesia; or as secondary, depending on reflex irritation derived from the sensory filaments distributed to the cornea, which, when deprived of their investing epithelium, are irritated by the phlyctenulæ or by the lacrymal secretion. While not doubting the excellent effect which may be produced by local applications that restore the conjunctival surface to a healthier state, I cannot assign them more than a secondary place, as it seems clear, from the testimony of the best writers, with which my own experience quite agrees, that in severe cases nothing avails except remedies, mostly of a tonic kind, addressed to the general system. Thus Mr. Soelberg Wells writes of phlyctenular corneitis, that he has “often found that a prolonged stay at the seaside, together with sea-bathing, tonics, a generous diet, and plenty of out-of-door exercise, will cure cases of photophobia which have obstinately resisted all other remedies.” In many cases, from Dr. Mackenzie’s description, it appears that no phlyctenulæ or ulcers exist, as you remember that none were found in our own. Again, the surprising effects of sudden surprise and fright, as observed by Von Gräfe and Mr. Hutchinson, seem to me scarcely explicable on any other view than that of a primary retinal neurosis. However, it is quite possible that a result may have two causes; and, though I hold the surface-irritation of the eye to be only a secondary cause of photophobia, I am far from advising you to neglect it.

Another day I hope to return to this great subject of hyperæsthesia, and to give you further examples of it. At present, it may suffice that I have called your attention to this striking instance, and given you reasons for regarding it as a primary affection of nerve-tissue, dependent, as Dr. Mackenzie states, on constitutional infirmity.

CASE II.—W. H., aged 73, was admitted December 3rd, 1870. He was a feeble-looking old man, engaged in a laundry. He had been laid up for thirteen weeks, as he stated, with sciatica. He never suffered in this way before, but had rheumatism in the shoulder some years ago. He had never had gout. He had been subject to pain in the back for thirty years.

On examination, I found the lower dorsal and lumbar spines tender to pressure, as well as the sacral, especially the lower. The pain was especially felt between the tuber ischii and the great trochanter, and extended down the back of the limb into the toes. The hip-joint was quite free, and so was the sacro-iliac synchondrosis. The right leg was a little shortened, he said, from neglect in infancy. The sciatica came on suddenly; he could not account for its origin. He turned with great difficulty from one side to the other; he could stand, but hardly walk. The bowels were regular; the tongue was moist and clean. The muscles at the posterior aspect of the thigh were very inert when Faradised. The urine was of specific gravity 1022, not albuminous. His sleep was much disturbed by pain for three weeks after admission. He was most desponding, and had a most dolorous expression, lay constantly in bed, and for a whole month appeared nothing better for all the remedies that were used, except that subcutaneous opiates gave him better nights. On December 28th, he was suffering much pain both at the back of the hip and at the anterior and outer part of the leg, “like a very bad toothache.” Percussion on this part of the leg caused soreness and pain running up the limb. On the 31st, having had an excellent night after a subcutaneous opiate, he woke free from pain; but, as soon as he moved, the pain returned. Pain was not felt now in the hip as long as he lay still, but there was much in the foot and leg. On January 4th, he was up, and admitted that he was better. On the 21st, he was better, and had no pain except when he rested his weight in walking on the limb. On February 10th, he walked without a stick. On February 8th, he showed me a copious lichenoid eruption, itching much, on the anterior tibial region, where the pain like toothache had been, and where he had applied a chloroform and opium lini-

ment. On February 11th, the papules had subsided, and a good deal of superficial redness had appeared between them. The foot had become highly œdematous as high as the ankle, and the leg itself was rather swollen. The left leg and foot were quite unaffected. The old pain was very much better. On the 15th, things were much in the same state; there were no enlarged veins on the surface of the leg. He was now ordered to observe the recumbent position, with the right foot a good deal raised. In two days the swelling of the foot and leg had quite subsided, and it did not return again except to a slight amount when his foot was allowed to resume its usual position. The papules, however, continued to be seen on the leg; and there was some eczematous eruption with discharge in the ham. On February 28th, he was discharged, and walked down stairs quite well. During the first month, his treatment consisted of three grains of iodide of potassium and four grains of carbonate of ammonia in an ounce of decoction of cinchona three times a day, with twenty grains of saccharated carbonate of iron three times a day; or of a mixture with a grain of iodide of potassium, and four grains of carbonate of ammonia with tincture of cinchona, tincture of valerian, and infusion of valerian, the iron being continued. Nothing was gained by adding ten minims of oil of turpentine to each dose of the mixture. He was fired with a disc heated in boiling water over the back of the thigh, the buttock, and the sacral region; but the only result was the removal of the tenderness and pain which had been felt over the lower spines. Injections of one-fiftieth of a grain of atropine, podophyllin with colchicum in pills on alternate nights, nitromuriatic acid three times daily, and hypophosphite of lime in ten-grain doses twice daily, availed little or nothing. Faradisation and galvanism were employed a few times; the latter, from an excellent Stohrer’s battery, gave relief for a very short time. Acupuncture was performed with four pins introduced at the back of the hip and three at the anterior part of the leg; but I could observe no improvement from it. On January 1st, he began to take fifteen grains of quinine daily; and on the 16th I gave him, besides, four minims of liquor potassæ arsenitis three times a day with his food. On the 30th, these remedies were replaced by twenty grains of citrate of quinine, ten minims of tincture of nux vomica, and ten minims of spirit of chloroform, three times a day; and cod-liver oil, which he had had before, but had given up as it disagreed, was continued in drachm doses every night. Lastly, on February 17th, arsenical solution was given again in five-minim doses with bark; and the oil was continued.

I regarded the eruption which appeared on the leg during the latter part of the treatment at first as a mere accident, depending on the irritation caused by the liniment; and I believe that the latter was to some extent a *vera causa*. But I think there was more in the matter than this, especially as considerable subcutaneous effusion took place in a part where there was no eruption. The chief cause was, I suspect, a paresis of the vaso-motor nerves of the limb, which relaxed the arteries and impaired the retentive power of the capillaries. As we have strong grounds for regarding neuralgia as a paralysis of cerebro-spinal nerves, it is quite to be expected that the vaso-motor nerves accompanying them shall fall into a like condition. At p. 554 of the second edition of my work, I have recorded a very similar case; in which, however, the eruption ran into erysipelatoid inflammation.

The inert state of the muscles when Faradised shows how the neuralgia had paralysed the motor as well as the sensory nerves; and this seems to be a very frequent, if not a constant, occurrence in all neuralgias. Reproduction of the pain by exertion is another very common event, and suggests the monition that our convalescents from neuralgia should be cautious to economise their feeble powers, and not take too much out of themselves in any way. I have no doubt that intellectual exertion would be as injurious as muscular. A medical man suffering from nervous exhaustion once told me that he found any amount of close thought induce actual pain. Another sufferer, a hard-worked male, mentioned that annoyance would bring on in two or three minutes a rather sharp pain at the left side of the upper part of the head.

Next, as to the all important question of the *origin* of the sciatica, we may be certain, I think, that it was occasioned by primary defect in the nerve or its centre, and was not due to any toxæmia or remote irritation. The two latter are very possible and real causes, and you must never forget them. But our patient showed no traces of gout, or syphilis, or lead-poisoning; and we cured him without removing any cause of irritation. We are, therefore, shut up to the first; and we are confirmed in this view by the fact that we had to do with a poor, feeble, down-hearted old fellow, who had probably never possessed a good stock of nerve-force, and whose circumstances had been such as to depress what little he had.

Lastly, I come to the chief lesson which I would have these two cases teach you, and which I may express in one word—perseverance.

You see that in both instances we had to combat disorder of long standing under many unfavourable circumstances, and that success was obtained in each, not by excogitating some new and peculiar remedy, some antidoloric oil or drops, but by the steady pursuance of a rational method, involving simply the use of old well approved remedies. In both cases, improvement came very slowly; some weeks elapsed before any was apparent; but the ultimate results were fairly satisfactory. Now I want you to lay this well to heart in your future course. You will surely meet with many similar cases; and you will be often puzzled and wearied by them, and tempted to give them up in despair; and, if you allow this to appear, the patient's confidence in you will necessarily be shaken. But be prepared for all this discouragement *ab initio*. Let your patients or their friends know that progress, especially at first, will be very slow, and probably interrupted by numerous relapses; but that, nevertheless, the wished-for result is attainable, if they second your perseverance with patience. Remember that diseased action is much like a railway-train in motion; it cannot be brought to a stand-still all at once, though you apply the breaks and shut off the steam. The momentum acquired cannot be safely neutralised *instantly*, and time is essential to set up counter-actions of a restorative character. To those who with fashionable scepticism may be inclined to suggest that Time is the healer in such cases, and not Art, I reply that all my experience leads me to think that the longer space elapses without the intervention of Art, the longer also must be the period during which remedies must be employed. A sciatica of fourteen days' and one of fourteen weeks' standing are vastly different things. Trousseau embodied the same truth in his aphorism—*longue maladie, longue traitement*. In urging upon you perseverance, I may appeal to the estimates formed by foreigners of our national character, from which I trust you do not intend to degenerate. Napoleon sent this message from the field of Waterloo: "I have beaten the English, but they won't go." A Swiss canon, recounting the attempts made at scaling the Matterhorn, writes: "Les Anglais ne reculent jamais, c'est leur caractère." In both these instances, pluck and tenacity of purpose carried the day; and so they often will, under God's blessing, in the strifes which you have to wage against disease and death.

HYDATIDS OF THE LIVER.*

By EDWARD LONG FOX, M.D., F.R.C.P.,

Physician to the Bristol Royal Infirmary.

AT the end of May 1869, a girl, aged 14, was brought as an out-patient to the Bristol Infirmary, and was admitted for a short time as an in-patient, and treated for some months afterwards at home.

The mother gave the following account of her. In July 1866, she had an attack of shingles; and whilst she was under treatment for this, an enlargement of the right side was observed by her medical attendant. No further notice, however, was taken of the swelling until Christmas 1868, when it increased very much, interfered with respiration, and was sometimes the seat of acute pain. In March 1869, she was admitted into the Westminster Hospital, under Dr. Fincham, and hydatids of the liver were diagnosed. She remained there for about six weeks, being measured several times a week, but taking no medicine. It is an interesting point of the case that, during her sojourn in the Westminster Hospital, she craved very much for pork, and was clandestinely supplied by her mother with pork and ham.

In May 1869, her parents removed to Clifton, and thus she fell under my notice.

On admission, she presented the following appearance. She was a fairly nourished girl, short, but rather stout. The upper parts of the abdomen and lower parts of the thorax were occupied by a tumour, quite dull on percussion, smooth, and slightly resilient, extending from the fourth rib on each side downwards to the extent of seven inches, causing a considerable bulging of the right side, especially posteriorly. The tumour in front extended seventeen inches horizontally across the body. The right side of the thorax was about two inches and a half larger than the left. The heart was pushed somewhat upwards, the apex beating about the level of the fourth rib. Respiration was rather rapid, especially if she hurried, or walked upstairs, or lifted anything. Digestion was fair. The urine was healthy. She was now menstruating for the first time. The temperature was slightly raised, probably in consequence of slight peritonitis over the tumour. She liked to eat her meat almost raw. Her mother suffered from *tœnia solium*, and did so for the first time when pregnant with this child.

She was under treatment about six months, and month by month gradually decreased in size, until at last no trace of the tumour could

be detected, the diaphragm returning to its proper position. Her medicine all through was iodide of potassium, either alone or in combination with mild tonics. She came to see me a year afterwards, in perfect health.

Besides her recovery, the interesting points in the case are: first, the position of the growth of the hydatid cyst, pushing up against the diaphragm and the ribs, instead of the more yielding walls of the abdomen; and secondly, that recovery took place apparently by the death of the echinococci, from the absorption of iodide of potassium, as it is certain that they were not passed by the stomach, bowels, or bronchial tubes.

Had the patient been a male, the sex in which the diaphragm plays an important part in respiration, the difficulty of breathing would probably have been much more marked.

Frerichs, in advocating surgical measures in cases of this kind, remarks that certain medicines have been employed, which are thought to pass from the blood into the cysts, and to kill their inhabitants. Baumes believed that calomel was endowed with this property; Laennec common salt; and Hawkins iodide of potassium, but as yet (he says) no case is known, in which any such plan of treatment has succeeded.

No doubt, iodide of potassium is often given without success; but I claim this case as an example of absorption of this drug into the cyst. Of course, it may be said that this was an instance of spontaneous death of the parasites, wholly unconnected with the medicines employed. We have in the Infirmary Museum a beautiful specimen of an hydatid cyst of the liver into which a bile-duct discharged itself, and so caused the death of the parasite, and spontaneous cure. But when the disease has advanced as far as in the case before us, spontaneous shrivelling up of the sac is, I believe, unknown. Nor is the other most usual form of cure more common in large hydatid tumours; viz., that in which the acephalocysts are destroyed by the secretion of a thick putty-like material within the sac, a species of caseation.

The iodide of potassium has been used by physicians in this country for many years in these cases. Dr. George Budd mentions it in one of the early editions of his book on the liver, but not with any approval.

CASES OF ALLEGED DISPLACEMENT OF THE UTERUS: WITH REMARKS.*

By C. J. GIBB, M.D.,

Consulting Surgeon to the Newcastle Infirmary.

MR. PRESIDENT,—I would not have promised to lay before you the present cases, had I not felt ashamed to see in the circular calling the January meeting, that, with the exception of Dr. Philipson's valuable Report, no member had a pathological specimen, or even a paper, to communicate to the meeting. It happened that two of the following cases had consulted me that morning; and, the subject being one of great interest, although somewhat out of my line, I thought you would, under the circumstances, excuse my attempting to draw the attention of the Society to it. Three of the five cases have come under my notice during the last month.

CASE I.—A married woman, aged 25, who had had her third child two years previously, consulted me as to the propriety of submitting to the performance of two operations—to set straight, as she said, her twisted womb. She complained of pain under the left ribs, of flatulence, nervous palpitation, and general depression of spirits. She had had all the symptoms at intervals, even before her marriage, and had enjoyed very fair health since her last confinement, until her old symptoms relapsed a few weeks ago. She then consulted a surgeon in her town, whom I know to be emulous of uterine renown. Her complaint proved obstinate in his hands; and a few days before she visited me, he startled her by proposing to perform two operations for the cure of her twisted womb. The word "operation" being rather formidable in her eyes, she came to Newcastle for further advice. I examined her very carefully, and, from her foul tongue, flatulent and distended stomach, pain under the left ribs, and other symptoms, found her suffering from aggravated dyspepsia, dependent very much upon chronic gastritis. Of womb-disorder or displacement there was not a trace. The uterine sound passed up a healthy uterus, in its proper axis, and there was no uterine or ovarian tenderness, nor a trace of any leucorrhœa or of any sexual disorder.

CASE II.—Two years ago, a married gentleman consulted me for chancre. A few weeks afterwards he brought his wife, suffering from a large sloughing chancre on the swollen mouth of the uterus. She

* Read before the Bath and Bristol Branch.

* Read before the Newcastle Medical Society.

was kept in ignorance of its syphilitic character, and underwent a three months' course of treatment before she quite recovered, the disease proving unusually severe, and destroying part of the os. She was a feeble anæmic subject, and, during the succeeding year, called upon me on three or four occasions, complaining of slight leucorrhœal discharge, fulness in the womb, and general debility. Her symptoms were very slight, but she had a nervous dread of a relapse of the ulceration. A zinc injection, cold douches, and tonics internally, always quickly braced up and cured the local and general symptoms of debility; and I lost sight of her for some months. Meeting her casually one day, I asked her how she was. She then informed me that, shortly after her last visit to me, some of her friends had persuaded her to consult a celebrated womb-doctor, who examined her by the speculum in the same manner as I had been accustomed to do, and told her that "her womb was upside down"; that she had had three painful operations performed by him upon her, to place the womb straight, and was at that time wearing a pessary to keep the organ in its proper place. I was of course in deep disgrace. I had examined this lady with the speculum up to a fortnight before she consulted the specialist, and, feeling curious as to how far the cicatrised chancre had occluded the os and cavity of the uterus, had frequently passed up the uterine sound, so that I could not have failed to detect any displacement of the womb, had such existed. She was, besides, the mother of a numerous family, and had never suffered from any uterine disorder until she contracted the chancre; and, as I am frequently in the habit of using the speculum in my consulting-rooms, as often as half-a-dozen or more times a day on some occasions, I do not see how I could have made the mistake of overlooking a womb turned upside down.

CASE III.—A lady, aged 31, only married four months, consulted me, having missed three menstrual periods. I found that she had been ill two years before, during four or five weeks, with symptoms of dysentery, having passed bloody mucus from the rectum for several days. She had never experienced any illness before that attack or since. She was frequently examined *per vaginam*, during the attack of dysentery, by her medical attendant—a famous uterine physician—and was told by him that the weight and the painful bearing-down symptoms were caused by retroversion of her womb, and that if she married she would most probably never bear children. I found, on examination, that she was pregnant; that the uterus was in its right place; and that, to all appearance, there had never been the least previous displacement. She expressed her astonishment that she should so quickly have fallen pregnant after she had been so authoritatively told she would most probably never be so. She was a most intelligent lady; and, as a result of my inquiries into the symptoms of her former complaint, I was surprised at the amount of knowledge of the various forms of uterine displacement which she possessed: indeed, I found that, although unmarried at the time of her former illness, she had been regularly coached up in uterine pathology, and was more especially learned in displacements. I have no hesitation in affirming that she had never had retroversion of the womb, but a simple attack of chronic dysentery.

CASE IV.—A married lady, aged 34, living in a neighbouring town, called upon me six months after the birth of her first child, suffering from slight catarrh and general debility, along with some of the usual nervous symptoms that accompany anæmia. She made at that time no complaint of her womb, and I of course made no examination of it. I prescribed some chalybeate tonics, and she quickly recovered. Three months afterwards, a purulent vaginal discharge appeared, with weight in the uterine region. She consulted a surgeon in her town, who used the speculum, and declared that her womb was out of its place, and had been so ever since her confinement. He forthwith pursued the usual treatment in such cases. At the end of two months, however, she became covered with a skin-eruption, and got ulcerated throat and vulva. Not recovering, she became alarmed, and consulted me again. I found that she had secondary chancres, sore throat, and eruptions, but not the least trace of any displacement of the womb, past or present. In relating her case to me, she expressed in strong terms her astonishment that I should have neglected to examine her womb on the former occasion, and thus have overlooked the displacement; and, although she became convinced that her present sexual ailment was venereal, she firmly believed that her womb had been also displaced, and that the specialist had put it right.

To the female mind, displacement of the womb is so natural and ready an explanation of the ills that follow child-bearing, and so easily do they credit the assertion that one or two applications of the uterine sound or pessary has put it straight again, that any attempt to prove there has been no displacement is generally vain.

CASE V.—I was consulted by a married woman, aged 24, for pain, bearing-down, feeling of fulness in the uterine region, with faintings, debility, and the numerous other symptoms that denote uterine irrita-

tion and inflammation. She had been confined a year before of her first child. Puerperal inflammation followed, in so severe a form that her medical attendant sought the assistance of one of our most eminent local physicians. The puerperal attack was succeeded by abiding symptoms of uterine disorder similar to those for which she consulted me. After some months she removed to London, where she consulted an eminent uterine specialist. He pronounced her to have displacement of the womb; and, after a prolonged rest and treatment, she felt considerably relieved and returned home. She was, however, still unable to bear the embrace of her husband, on account of the pain; and two or three weeks before she consulted me, the old symptoms had returned in all their intensity. On examination, I found the uterus enlarged from chronic metritis to nearly twice its ordinary size, the neck unfolded, and the os of scarlet redness; the uterus being almost as globular as an orange, excessively painful to touch, and discharging from its interior large quantities of catarrhal mucus, almost as clear and consistent as the white of an egg. The raw red opening of the os was covered with purulent matter, and the uterine sound passed up readily in the proper axis, showing the case to be one of inflammation unconnected altogether with displacement.

In this case, the London physician, after putting the womb right with the sound, had introduced a pessary, to keep the womb straight, as she termed it; but it caused such intense pain and irritation after it had been there a day, that she had to remove it altogether. She spoke to me in the most disparaging terms of her local medical attendant and physicians for having so grossly overlooked the displacement of her womb, that I could not help feeling highly indignant that their reputation should suffer such unmerited injury from the reckless statement of the specialist whose crotchety mind could probably see little else but displacements to correct in the most ordinary diseases of the organ.

REMARKS.—When reviewing such cases as I have selected, and recalling the experience of my past life, the idea has often forcibly struck me that, in uterine complaints as in general pathology, there exists a tendency to the prevalence of what may be called a fashion in disease. In my younger days, when long resident in this Infirmary, although there was a considerable amount of uterine practice, under the treatment of the most experienced men of the district, I do not remember that uterine displacements were considered to be the ills that most afflicted women. I still recognise in the Institution some of the ancient, and now no longer used, pessaries with which we used to struggle against bad cases of prolapsus. Ulcerations of the womb came decidedly into note some years afterwards, but now there is nothing but displacements talked of by many specialists, although it is true that all are not affected with the fashionable mania.

I think that I have fairly proved that many of such alleged cases have, to say the least, been wrongly diagnosed as such. The injury to the patient, as well as to the ordinary practitioner, that such hasty statements inflict, requires no description from me; for, if I may believe what I hear, there are but few of us who have not experienced considerable vexation from such cases.

Turning, however, from the spurious to the consideration of the real cases of flexion of the uterus, excluding of course common prolapsus, I was much struck with a discussion on this subject in the midwifery department of the late meeting of the British Medical Association, provoked by a paper of Dr. Henry Bennet. His opinion was, that the great majority of real displacements were simply the results of inflammation or other diseases of the pelvic contents, and that, generally speaking, they did not require special mechanical treatment, as they were but the result of disease which needed removal by other curative means, whilst purely mechanical treatment most frequently aggravated the original malady. I think that most unprejudiced practitioners conversant with uterine diseases will readily endorse this opinion; and the last case which I have related shows how injurious a pessary may prove in cases of painfully enlarged womb. It requires a clear unprejudiced mind to appreciate such cases, so as to avoid rushing at one only of the effects of a disease, and, in the too often vain attempt to put it straight, aggravating or permanently injuring the unfortunate patient.

As there can be no doubt that comparatively few men, after the wear and tear of life, can boast of a faultless body in all its parts, so likewise is there frequently great variation in the normal or acquired form or position of the very mobile internal sexual organs of women, without any morbid symptoms resulting therefrom. Indeed, I have heard some excellent practical accoucheurs say that crooked wombs are very common in those who make no complaint whatever. My own experience would incline me, as a rule, to avoid mechanical treatment, except in those acute forms of displacement sometimes following confinement, or such as are attended with prolapsus. In them there can be, I am sure, no dispute as to the great relief frequently experienced by judicious mechanical treatment and contrivances. If we are to believe the state-

ments of some patients, a twist of the specialist's sound has sometimes rectified a long overlooked twist of the womb. Such tales recall to my memory the boasted achievements of the magician's wand, or the magic touch of the bone-setter's art. I cannot say that this speedy rectification of uterine twists accords with my experience, even when the sound and pessary have been used under the guidance of the respected leaders of the obstetric art. The world has been accustomed to see and to smile at the blindness which often prevents a specialist from finding any other ailment in a consultant than in his favourite organ. Let us hope that it may have been only this form of amiable blindness which afflicted the gentlemen connected with the cases which I have enumerated. In conclusion, there is one thing which I think a specialist should do in such cases: having mentioned the word displacement, he ought also to be particular to explain that, although the ordinary medical attendant may not have said there was displacement, yet that he must have been aware of its existence, as the displacement is generally only one of the symptoms of the disease of the womb afflicting the patient. In disease of the hip-joint, with resulting dislocation on to the ilium, a consulting-surgeon would never dismiss the patient under the idea that his ordinary medical attendant had overlooked the dislocation, and that it was simply a case of dislocation of the hip-joint.

ON THE TREATMENT OF STRICTURE OF THE URETHRA.

By W. F. TEEVAN, B.A., F.R.C.S.,
Surgeon to the West London Hospital, etc.

As the report of the paper which I read before the Medical Society was but an abstract, I am happy to supply any information that Mr. Swain may desire. That gentleman states that the French flexible instruments are "very perishable, and, after a few usings, become dangerous." I presume his remarks apply to the English-made instruments, which, like most imitations, are bad. I have tried the French bougies and catheters made and sold in England, and have found them to bear out Mr. Swain's statements regarding them. For many years I have daily used the French instruments, which I import direct from M. Lasserre, 5, Avenue Victoria, Paris; and I can hardly say too much in their praise. They are most durable, and never crack or break. The only care they require is to be kept well oiled, in a warm room. Mr. Swain complains that "in old, long, gristly strictures, they double up and refuse to pass onwards." At the discussion at the Clinical Society, a similar complaint was made by a surgeon regarding these instruments; and I cannot do better than give Mr. Maunder's answer: "With skill and care, the incident referred to would be obviated." If any attempt be made to force onwards the very slender filiform bougies, they will double up; but if they be insinuated with extreme delicacy, and withdrawn a quarter of an inch for every half-inch of progress made, they will rarely fail to penetrate the most desperate strictures. In some cases of hard gristly strictures, I use metallic bougies of the same shape as the elastic *bougie olivaire*; but, whether I employ metal or elastic bougies, I dilate the patient's urethra up to No. 30 French gauge, considering that No. 25 ought to be the minimum to aspire to. I would here observe that No. 12 English is equal to about No. 20 of the French gauge. Sometimes the narrowness of the meatus externus interferes with dilatation: I accordingly freeze the part and slightly incise it, which procedure affords ample room for the passage onwards of the largest instrument.

Mr. Swain says he "cannot understand how external urethrotomy can be advocated in preference to any other plan of curing stricture." I only perform that operation when, after repeated trials, I fail to pass the smallest instrument. I have consequently to divide the stricture, and work my way into the bladder *without any guide*. This operation is not Syme's, which requires a staff to be passed through the stricture for a guide; but the old French operation evolved from "*la boutonnière*". For those limited cases of stricture which can only be dilated to a certain point, or, if dilated, speedily contract again, I recommend the "subcutaneous division" originated by Dr. Henry Dick, to whose writings and those of M. Auguste Mercier I am much indebted, and would refer the readers of the JOURNAL for information.

All statistics published regarding forcible rupture are nearly useless, as they omit to state what was the condition of the urethra immediately before the operation and three years afterwards.

If there be a point in the pathology of stricture on which all surgeons are agreed, it is that the worst of all strictures is the traumatic—that produced by lacerating the mucous membrane; whereas a clean cut into the urethra, as in lithotomy, is not followed by any contrac-

tion. Now, if a stricture be split up, we are, by lacerating the mucous membrane, laying the seeds of a traumatic stricture, in addition to the organic one already existing. The cases related by Mr. Timothy Holmes and Mr. W. Stokes show that, if the urethra be examined a few hours after death following forcible rupture, the mucous membrane is found lacerated.

Mr. Swain states that the fatality following forcible rupture must be explained "by its having been used in cases where renal disease or some other unhappy complication rendered *any* treatment perilous." Now one of the great and inestimable advantages possessed by gradual dilatation, as carried out by the French flexible bougies, is, that the method is absolutely free from danger, no death ever having followed its use anywhere, so far as I can ascertain; whereas forcible rupture would seem to be attended with serious risks to life, and followed by other unfortunate sequences. I know of twenty-one deaths following forcible rupture in the hands of hospital surgeons, *plus* several more which have occurred at a certain hospital. One hospital surgeon, who had discontinued forcible rupture, told me that, in the last case in which he employed it, the patient was attacked with retention of urine; another hospital surgeon informed me, a few days ago, that in one day he had no less than three cases of bad recurrent strictures after forcible rupture by an eminent surgeon; and a third hospital surgeon showed me a calculus which had formed on the clot after forcible rupture, and said that he had cured by gradual dilatation with the olivary bougie a case which had been twice split within three months, the second operation being followed by such severe hæmorrhage that an instrument had to be tied in for twenty-four hours, which procedure was attended by abscess and fistula *in perineo*.

I have but little hope of surgeons agreeing as to which is the best method of treating stricture, until such time as they are all enabled to summon up sufficient moral courage to publish the unsuccessful results attending their operations.

CASES ILLUSTRATING THE OCCURRENCE OF ABNORMAL ERUPTIONS IN SMALL-POX.

By FREDERICK POLLARD, M.B.Lond.,
Resident Medical Officer to the St. Pancras and Northern Dispensary.

IN addition to its own specific rash, small-pox is occasionally attended by other eruptions, the occurrence of which may considerably increase the difficulties of diagnosis in the early stages; while in other instances they may have an important bearing on prognosis. These points are severally illustrated by the following two cases.

CASE I.—William M., aged 17, was first seen on the third day of illness. He had then a temperature of 106 deg., no eruption, severe frontal headache, and a thickly coated tongue. He had been sick, but had had no particular back-ache. He had been vaccinated in infancy, and showed two good cicatrices. Next day (the 4th) there was a copious crimson mottled eruption all over the face, body, and arms, occurring chiefly in round spots of the size of a threepenny-piece, in some parts discrete, but mostly running together in mottled patches. The spots were of the colour of measles-eruption, not at all elevated, and fading entirely on pressure. There were also a few slightly elevated papules about the face; temperature still 106 deg. The patient chiefly complained of headache and insomnia. I ordered a dose of chloral at bed-time. Next day (the 5th), the temperature had sunk to 100 deg. The crimson rash had entirely disappeared; the variolous papules on the face remaining, and being more elevated and shotty than on the previous day. The patient had slept a good deal, and the headache was better. He was ordered to the Hampstead Hospital, where he has progressed favourably, and is now convalescent.

CASE II.—Jessie T., aged 5, was first seen on the fourth day of illness. On the first and second days, the symptoms had been fever, sickness, and general pains; on the third, the purpurous eruption appeared. When seen (fourth day), she was found to have a temperature of 105 deg., pulse 184, respirations 84. There were a large number of purpurous spots from the size of a threepenny-piece downwards on the arms, body, and legs; they were round or oval, with distinct margins, and quite permanent on pressure. There were also two or three marks resembling bruises. In addition to this eruption, there were a few not very characteristic papules about the face; but the friends were not sure whether these appeared on the third or fourth day, as they had been overlooked, in consequence of the dark blue spots attracting more attention. The child was very restless, continually tossing about, and could not be got to answer questions. There was no evidence of hæmorrhage from any of the mucous membranes, nor of any thoracic mischief. Death occurred the same evening.

In this case the patient had been vaccinated when an infant, and the arm showed three fairly good cicatrices. This fact does not corroborate a statement made at the Clinical Society a few weeks ago, to the effect that a purpurous eruption in small-pox after vaccination has no unfavourable import; for here it clearly indicated a very malignant form of disease.

ON THE PAIN OF ATAXY AND ITS RELIEF.

BY JULIUS ALTHAUS, M.D., M.R.C.P.,

Physician to the Infirmary for Epilepsy and Paralysis.

THERE are few kinds of pain which equal, and none which surpass, in severity the pain which accompanies certain forms and stages of progressive locomotor ataxy. This pain is short, sharp, and sudden; there is an instant or two of indescribable agony, followed by twenty or thirty seconds, not of rest, but of a kind of drowsy stupor, out of which the patient is roused by another pang, similar to, or even worse than, the first. I have seen strong men, who could bear a great deal without flinching, scream under this infliction; and frequently their cries could be heard at a distance. The pain generally reaches its acme of severity on the third day from the commencement of the attack, and remains of the same character until the eighth day, after which there is a kind of lull. The patient, although utterly wearied and exhausted by suffering and sleeplessness, is, as it were, able to breathe again, as the shocks become less frequent and less severe. Sometimes the pain is quite gone by the tenth day; at other times it goes on in a subdued and sullen manner until a month has passed since its commencement.

Most usually the seat of pain is in the feet and knees, rarely in the hips and back, and quite exceptionally in the upper extremities and the head. Neither swelling nor redness is perceptible during these attacks, which are often set down as being of suppressed gout. They occur, however, in persons who have no gouty habit at all, and do not yield to the remedies which prove most useful in the gouty diathesis. Indeed, the peculiar obstinacy with which the atactic pain defies purely medicinal treatment—even a bold use of hypodermic injections being generally futile—constitutes one of its chief characteristics. That the pain is really part and parcel of ataxy is proved by the concurrence of other symptoms, which the patient often omits to mention on giving an account of his case, but some of which can be invariably elicited by inquiry. Thus, we find that some time previously there has been transitory double vision, or other affections of cerebral nerves; that there are sexual debility, and weakness and unsteadiness in walking.

It appears probable that the paroxysmal pains of ataxy are owing to tetanic spasms of the muscular coats of the arteries, caused by irritation of the vaso-motor system of nerves. We have therefore to look for remedies chiefly amongst those agents which we know to possess a powerful influence on the sympathetic. Amongst these, the continuous galvanic current stands *facile princeps*; and I will now shortly relate a case in which it brought relief, which had for years obstinately resisted all other medication.

J. B., a merchant, aged 35, married, came under my care in February 1870. He had for the last six years suffered from periodical attacks of severe pain in some part of the lower extremities, principally the right foot and the left knee. Such an attack generally lasted from two to four weeks, after which the patient was free from it for two or three months, at the expiration of which time a fresh attack would come on. He had never had syphilis. Early in 1864 he suffered from double vision, owing to paralysis of the rectus externus of the right eye. This yielded to treatment in about six weeks, and since then his eyes had been weak, although not suffering from any definite disease. Soon afterwards he noticed that his sexual power was diminished, and that he occasionally had nocturnal emissions, which had not occurred during the previous period of his married life (four years). In August 1864 he had the first attack of pain, which was treated with blue pill, opiates, belladonna, and quinine. It lasted about a month, and then vanished. A second attack came in December of the same year, and was treated with colchicum and alkalies. It lasted nearly the same time as the first. When he recovered from the second attack, he felt very weak on his legs, and he had never since then been quite steady, his gait being staggering chiefly in the dark. Attacks now occurred with considerable regularity every two or three months. Some of the later attacks were treated with hypodermic injections of morphia, but with little or no effect. It is true that for fifteen or twenty minutes after the injection the pain was generally not quite so severe as before, but it rapidly resumed its ordinary type. The patient had also tried a great many different kinds of baths; in fact, as he expressed himself, "everything except galvanism," when he came under my care.

He was in bed when I first saw him, racked with pain, which shot periodically through the right instep. I persuaded him, much against his will, to let me use the hypodermic syringe, and injected one-third of a grain of morphia with one-thirty-sixth part of a grain of atropia, near the internal malleolus. This had no further effect, than to make him feel somewhat giddy, and to make the tongue very dry; but it did not relieve the pain at all. The patient being convinced of the uselessness of this proceeding in his case, at my next visit I used, at his urgent request, the continuous galvanic current. This was applied, not *loco dolenti*, but at the neck, to the course of the cervical sympathetic nerve. After the first application, the patient had about an hour's freedom from pain; after the second, a somewhat longer interval took place; and after the third, the severity of the suffering was considerably diminished. He had altogether ten applications in eight days, after which the pain was entirely relieved; while usually such an attack had lasted a month with him. I now put the patient on a course of nitrate of silver—almost the only medicine which he had not yet taken—for improving the other symptoms of ataxy; and he took this, in doses of from one-sixth to a half grain, for six weeks, with decidedly good effects. He continued quite free from pain for about six months, the next attack occurring in August, having been due in May or June. This attack was not nearly so violent as that in February, and yielded to galvanisation of the sympathetic in the most satisfactory manner. Until now (April 1871) no further attack has taken place; and although it would be rash to assume that the patient will remain altogether free, yet life has in the meantime been rather an enjoyment to him than a burden, and his prospects altogether appear decidedly favourable.

CLINICAL MEMORANDA.

CALCAREOUS FILM ON THE CORNEA.

MR. DIXON, in his remarks on Calcareous Film on the Cornea, notices the fact that, in the cases recorded, though both eyes were affected, the opacities were not, strictly speaking, symmetrical. He seems thus to imply that, in all the recorded cases, both eyes have been affected.

May I be permitted to refer to a case exhibited by me at the Pathological Society during the present session, in which an opacity, in every respect similar to that of the cases exhibited and depicted by Mr. Fairlie Clarke, was present in one eye only? The eye affected was also the subject of extensive intraocular ossification. The case is, I think, interesting as a demonstration that in Mr. Bowman's and Mr. Fairlie Clarke's cases the affection of the two eyes was probably accidental, and that in none of the cases was the disease of the cornea primarily of constitutional origin.

W. SPENCER WATSON.

15, Henrietta Street, Cavendish Square.

FACTITIOUS URTICARIA.

AFTER reading Dr. Broadbent's interesting case of Factitious Urticaria, I cannot refrain from giving my personal experience of that disease. I discovered that I was subject to it six or seven years ago, when attending Dr. Gull's lecture on the subject. I have continued to exhibit it at all times without any change since. Is it not probable that the patient mentioned by Dr. Broadbent may be permanently affected by it? and that the exposure at Christmas had nothing to do with the cause, but led accidentally to the discovery?

GEORGE H. SAVAGE, M.D. (Lond.)

Nent Head, Cumberland, May 1871.

SWEATING OF BLOOD.

A LEADING article in the JOURNAL of last week on the case of Louise Lateau recalls a case to my mind which came under my notice in Honduras some time since. An English proprietor there came some distance to ask my advice for his overseer under the following circumstances. The overseer had been bitten a month previously by a jumping Tomagoff snake, and had been attended by a native snake-doctor at the time of the injury. The overseer recovered from the immediate effects of the bite, although his life was in great danger. A week afterwards he had not recovered from the prostration, and he then began "to sweat blood". His master stated that when he sneezed small spots of blood came out on his face, and that, on making a violent muscular effort with the arm, blood would ooze out on the portion of skin most stretched. The man had been perfectly well before the snake-bite. I prescribed cold baths and iron and strychnine in liberal doses internally. Under this treatment the man recovered in fourteen days. I believe that

the nerves of the skin and blood-vessels (*vasa vasorum*) were paralysed by the violence of the poison of the snake—one of a very venomous character.

JAMES THOMPSON, M.D.

MATERNAL IMPRESSIONS.

A FEW weeks since, when attending Miss B., I noticed that her mother suffered from paralysis of the muscles of left side of the face. Mrs. B. informed me that the affection was congenital, and gave me the following history. Her mother and her mother's sister (both of them then pregnant) were staying with Mrs. B.'s grandmother, nursing her in her last illness. One night, as they were both assisting her to the night-stool, the old lady was suddenly seized with hemiplegia, the facial paralysis being especially noticed by them. Both daughters were confined three or four months afterwards, and each of the children suffered from congenital facial paralysis of the left side. Mrs. B. tells me that she has often seen her cousin, and that she is afflicted in precisely the same way as herself. The two mothers often used to lament together over their children's infirmity.

E. H. ADDENBROOKE, Kidderminster.

RARE LUXATION OF THE ANKLE-JOINT.

HAVING lately had under my care a very curious case of complete dislocation of the foot inwards without fracture of either malleolus, I would be glad to know if any surgeon has met with an instance of a similar accident. The particulars are as follow. I was sent for to see a gentleman who, with a number of people, had fallen from a platform which had given way. On my arrival, I found that the boot and stocking had been cut away from the injured limb. The plantar aspect of the foot was completely inverted, so much so that it lay in the axis of the mesian line. I at once thought that one, or both, of the malleoli was fractured. On examination, however, such was proved not to be the case. I therefore used gentle and continued traction; when, to my surprise, the foot, describing the arc of a circle, returned into its place with a sudden jerk, and the patient at once exclaimed that "it was all right". With rest and the application of cold lotions for some weeks, the joint regained strength, and all its functions were restored, unimpaired in the slightest degree.

JAMES ALEXANDER EAMES,
Resident Physician to the Donegal District Lunatic Asylum,
Letterkenny.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE XII.—Wednesday, March 15th.

Rodentia.—The teeth of this order have very definite characters. The incisors in both jaws are large, nearly always $\frac{1}{1}$, and have persistent pulps. After the incisors comes a large space, which is succeeded by the teeth of the molar series, generally $\frac{4}{4}$ in number, but sometimes $\frac{6}{6}$. The Rodentia vary much in size, from the Capibara, the largest, down to Mice; they are generally small.

The Rat is in some respects an aberrant member of the group. It is not purely a vegetable-feeder, but is omnivorous; it is not improbable, however, that the animal's habits have become changed by its mode of life. Its dental formula is very simple, being $i \frac{1}{1}, m \frac{3}{3} = 16$ teeth in all. The incisors are very curved; the upper ones are very strong, and form a large segment of a smaller circle, while the lower ones form a small segment of a larger circle. They are implanted by long roots. The pulp-cavity becomes filled up with osteodentine. Enamel is present on the front of the teeth only, and in Rats, as well as in some other Rodents, is of a yellow colour. The dentine is apparently harder anteriorly than posteriorly; and hence the teeth are kept oblique and chisel-shaped. If an incisor be not worn down, it may go on growing till it forms a circle, or even beyond this. The upper molar teeth in the Rat have on their surfaces rounded lobules with little furrows between them; these are less distinctly marked, however, than in some other Rodents. The crowns of these teeth are short from above downwards, are contracted at the base, and have several long slender roots. The upper anterior molar is larger than the others, the last being the smallest. The first upper molar is elongated from before backwards, and its crown presents three ridges, anterior, middle, and

posterior; of which the anterior slopes from the root towards the crown. There is generally in Rodents a tendency to the formation of transverse ridges on the molar teeth. This is related to the elongation of the condyle from before backwards, permitting much antero-posterior motion in the jaw, and supplies surfaces for the grinding of food. Each of the ridges above described is further subdivided into tubercles. The first upper molar has five distinct roots, the second has four, and the last three. In the lower jaw, the ridges of the teeth slant forwards from the root to the crown, the obliquity being most conspicuous at the hinder end of the series. The first lower molar has three transverse ridges and four roots; the second, two ridges and three roots; and the third has three roots. The points of the tubercles gradually wear down, but the transverse crescentic depressions remain for some time; these, however, are obliterated as the animal grows old, so that only a smooth surface of dentine is left, surrounded by a simple ring of enamel. The dental formula of the Rat is frequently stated to be $i \frac{1}{1}, p \frac{1}{1}, m \frac{3}{3}$; but, as Rousseau and Cuvier showed, all the teeth behind the incisor are true molars, making the formula $i \frac{1}{1}, m \frac{3}{3} = 16$. No milk-teeth have been found in the Rat. In the Australian Water-Rat (*Hydromys*), the posterior molars are wanting; the formula is consequently $i \frac{1}{1}, m \frac{2}{2} = 12$.

In the Marmot and Squirrel, there are five teeth of the molar series in the upper jaw on each side, and four in the lower. Most probably the last three on each side are true molars, as in Rodents generally, and the others præmolars; but the succession is not known in all the species. The dental formula of these animals is therefore $i \frac{1}{1}, p \frac{2}{2}, m \frac{3}{3}$. The first upper præmolar is often very small, or it may be absent; in the Squirrel, it is very rudimentary. The crowns of the molars are short, and the roots long and distinct. The surface of the molars in the Marmot and Squirrel has a strong ridge on the inner side, from which other ridges radiate transversely to the outer edge of the tooth, somewhat like a fan.

In the Beaver, the incisors, which are much used in cutting wood, are broader from side to side than those of the Rat. The molar teeth are four in number on each side of each jaw; they are nearly cylindrical in outline, though rather longer from behind backwards. In the young Beaver, tubercles and ridges are present; but these soon wear down. Three folds of enamel project into the tooth from the outside, and one from the inside; they extend nearly down to the root. Below there is dentine; there is a simple root, the growth of which becomes extended after a time, as the folds wear down. This is apparently a transitional form leading to those Rodents whose molar teeth have persistent pulps. The dental formula of the Beaver, and also of the Porcupine, is $i \frac{1}{1}, p \frac{1}{1}, m \frac{3}{3}$. The milk-molar is not replaced by the præmolar in these genera until the animal is nearly full grown.

The Guinea-Pig presents an example of molar teeth having permanent pulps, and retaining the folds of enamel throughout life. The upper molars converge anteriorly, and nearly meet in the middle line; they are curved, as it always the case when the pulps are persistent, as if the curve relieved the pulps from pressure. The lower molars are curved in the opposite direction to the upper, the convexity being outside. The molar teeth have folds of enamel dividing the tooth vertically nearly from one side to the other. The milk-teeth, consisting of a single small molar on each side above and below, are shed before the birth of the animal. The formula is $i \frac{1}{1}, p \frac{1}{1}, m \frac{3}{3}$.

In the Capybara (*Hydrochærus*)—the largest of the Rodents—there are four molar teeth on each side. The first three in the upper jaw are small, and have a few ridges of enamel; the last is greatly elongated in the direction of the jaw, and consists of eleven or twelve transversely elongated denticles, surrounded each by enamel, and held together by cement. They constitute together a compound tooth, each denticle having its own pulp-cavity.

In the Hare and Rabbit, and the allied animal the *Lagomys*, there are in the upper jaw, in addition to the ordinary incisors (which are strongly grooved in front), two small teeth lying behind them, one on each side of the jaw. These teeth are cylindrical, and remain through life, though it is difficult to see how they can be applied in feeding. The molars are six in the upper jaw and five in the lower; they have persistent pulps, and are columnar and curved, with deep inflections of enamel extending almost entirely across the teeth. The first three in the upper jaw and the first two in the lower are preceded by milk-teeth, which are not shed until the animal is about three weeks old. In the young Rabbit and Hare there are three upper incisors on each side; but one of these (the middle one of the three) soon falls out, leaving the first and third, which remain through life.

THE BRADFORD INFIRMARY is to be enlarged by the erection of a new dispensary, waiting-rooms, and sleeping-rooms, at a cost of £4500, which amount is in hand.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 9TH, 1871.

T. B. CURLING, ESQ., F.R.S., PRESIDENT, IN THE CHAIR.

ON A SERIES OF CASES IN WHICH CHANCRES HAVE BEEN CAUSED BY VACCINATION. BY JONATHAN HUTCHINSON, F.R.C.S.

THE PRESIDENT announced that the Council of the Society had determined to appoint a committee to investigate the cases related by Mr. Hutchinson at the last meeting.

The discussion was resumed by the reading of a supplementary report, presented by Mr. HUTCHINSON. In all the cases but one, a course of mercury was commenced nine weeks after the appearance of the symptoms described; in the exceptional case, the treatment was commenced two weeks later. In the twelfth week, all were under mercurial influence and the sores were healing. When he saw the patients on Friday last, the sores had mostly healed; the enlargement of the axillary glands had subsided, and none of them had sore-throat. Some had evanescent rashes, and in one or two there was a lichenous rash; but not anything that could be called a syphilitic eruption. One patient had taken the medicine rather irregularly, and the chancre still remained open. In addition to these cases, some very interesting facts had been brought under his notice since the last meeting. One was a case of auto-inoculable rash in two children after vaccination, related to him by Surgeon-Major Lamprey of the 67th Regiment, who had also sent drawings of the appearances presented. One of the children had acted as vaccinifer to the other, and both presented on the arm an eruption of porrigo. This was probably an example of what was occasionally seen; and he believed that very little could be inferred as to the specificity of the eruption. In a second case, occurring in a patient who had come under the care of Dr. Hilton Fagge, there were, nine months after vaccination, three ulcers on the vaccinated spots, as well as sores on other parts of the body. The ulcers were irregular and undermined, and had swollen edges with a livid tint. Mr. Hutchinson did not think that this condition was of syphilitic origin—at any rate, it was not an instance of vaccino-syphilis. The other children of the same parents were all free from traces of syphilis; two, when examined, had ulcers due to scratches or falls. Probably there was some peculiarity in the constitution, allied to struma. A third case, two weeks after vaccination, presented a scaly erythematous eruption, evidently syphilitic. The vaccination was unsuccessful; the eruption appeared two weeks afterwards, and was evidently not due to the introduction of syphilitic virus in the operation. On examination, the patient, a woman, was found to have a large suppurating ulcer, very like a chancre, on the os uteri.—Another group of cases, where syphilis appeared to have been transmitted by vaccination, had been brought under his notice by Mr. Waren Tay. Two children, aged 14 months and 4 years, came under Mr. Tay's care on Friday last. In both, the vaccination scars were unhealed twelve weeks after the operation. In the elder child, one of the sores, and in the younger three, were indurated. They had enlarged axillary glands, and a papular rash (less marked in the younger) on the bend of the elbow, thighs, and hip. The children were said to have been free from eruption till two weeks after vaccination. There was no reason for believing that a hereditary taint was present. The vaccinifer and twenty-four other children vaccinated from it had been traced out. The vaccinator had informed Mr. Hutchinson that he was generally careful to avoid using blood-stained lymph; but on this occasion, as he had a great press of duty, he could not say positively that he had been able to exercise his ordinary care. The vaccinifer was seven months old. The mother said that he was selected as being healthy; and that his vaccination sores healed well. The child appeared healthy, and had no eruption; but its head was large and the fontanelle very open. On inquiry, Mr. Hutchinson was informed that it had snuffles; and he found at the anus a single small condyloma. The mother was healthy; the father denied having had syphilis, but probably from a feeling of alarm. The evidence was apparently slight; but the snuffles, the condyloma, and the hydrocephalus, pointed strongly to syphilis. Some of the other persons vaccinated from the child had been examined. In one, a girl aged 11, the vaccination-sores remained open for three months, and two of them were suspiciously hard; there were also some spots about the elbow, but no sore throat. In two other children, the vaccination-spots were said to have healed slowly, and a rash was reported to have followed the operation. Two others were said to have done well.

Mr. HENRY LEE called attention to a case which had come under

his notice in a child, in whose arm ulcers remained open several weeks after vaccination. The parents were apparently quite free from syphilis; the father, who died of phthisis a few months ago, had had gonorrhœa. The child (which was brought to the Society for examination) was much emaciated, and had a coppery eruption on the nates, sores on the mouth, and enlarged axillary glands on the side where the vaccination had been performed. Mr. Lee could not give a decided opinion as to the case; but he thought it to be one of vaccino-syphilis. Only three other cases of apparent vaccino-syphilis had come under his notice. In the first case, which he saw in 1863, there were no secondary symptoms as far as he could ascertain. In the second, there was a circumscribed indurated sore very like indurated chancre; no specific treatment was adopted, and the induration disappeared. It was then doubtful whether this case was syphilitic. The third case was that related early in the year by Mr. Thomas Smith at a meeting of the Clinical Society. In this case, the axillary glands were not enlarged. In the Rivalta cases there was enlargement of the glands in only fourteen of the forty-two patients; and the enlargement might have been due to other causes than syphilis. He thought that the gentleman who had had the courage to allow his cases to be brought before the Society had done much to render vaccination safe, and that he deserved respect. No vaccinator ought to be suspected of introducing syphilis unless a chancre were produced at the point where the vaccination was performed. He hoped that some rule might be laid down for the guidance of the profession in avoiding vaccination from diseased subjects. Till this was done, it would be as unjust to accuse any one of malpractice as it would be to blame the captain of a ship for allowing his vessel to run on a hidden rock not marked down in the charts. Two great rules were to be derived from Mr. Hutchinson's paper. First, pure lymph alone should be taken, and the base of the vesicle should not be interfered with. He had in his hand a letter relating a case in which pure vaccine lymph taken from a person suffering from small-pox had communicated cow-pox alone. Secondly, lymph should be taken from healthy children only; it was not always easy to say, however, whether the child was really healthy.

Mr. HULKE, referring to the statement made by Dr. Drysdale at the last meeting of the Society, asked at what hospital the vaccination from the child was performed.

Dr. DRYSDALE said that the parents of the child were both deaf and dumb, and that he had written instructions that the child was to be vaccinated, but was not to be used for vaccinating others, because it was syphilitic. He had been told afterwards that the child was used at St. Bartholomew's Hospital to supply lymph for vaccination.

Mr. THOMAS SMITH said that vaccination was not performed at St. Bartholomew's Hospital.

Dr. O'CONNOR asked Mr. Lee how long gonorrhœa had existed in the man referred to in Mr. H. Lee's first case.

Mr. COOPER FORSTER agreed with those who considered that the presence of secondary symptoms was essential in order to prove the presence of syphilis; the sores and enlarged axillary glands were not enough. In Mr. Hutchinson's cases, however, there were as unmistakable syphilitic sores on the arms as any that he had ever seen on the penis; and the glands were enlarged and hard. In these cases, however, there had not yet been sufficient time for the development of well marked secondary symptoms; and in such cases secondary symptoms would probably be to a great extent of mild character.

Dr. ANSTIE had arrived at the conclusion that there was no sore whatever the appearance of which justified the absolute declaration that it was syphilitic. A sore might be indurated without being of syphilitic origin. If secondary symptoms appeared, this was another matter.

Dr. ALTHAUS did not see any reason for believing that there might not be a large crop of secondary symptoms in some of Mr. Hutchinson's cases. Twenty years ago, Dr. Waller of Prague had proved, in opposition to the view then entertained by Ricord, that secondary syphilis could be communicated. The experiments were made on idiots; and in all of them secondary symptoms appeared just as if they had had primary chancre.

Mr. BERKELEY HILL hoped that some of the opponents of the doctrine of the transmissibility of syphilis by vaccination would be placed on the committee. The evidence as to the communication of syphilis in this way was feeble. He agreed with Dr. Anstie that indurated sores were not always syphilitic. It would be interesting to know the state of the instrument which was used in the vaccination. It might be—though this was a mere speculation—that one of the adults being vaccinated was syphilitic, and that he infected the others.

Mr. MAUNDER believed that it was possible to predict the occurrence of secondary symptoms from the appearance of sores that had not been tampered with in any way. He asked what was the character of the induration in Mr. Hutchinson's cases. There were two varieties of in-

duration; viz., the true Hunterian, and that described by Ricord as *parcheminée*, where a thin layer of induration lay at the base of the sore.

Mr. BARWELL thought the discussion was wandering away from the main question—Is syphilis liable to be conveyed by vaccination? This question must be considered not merely professionally, but as it would be regarded by the public, who would consider the infection with syphilis by vaccination as a great misfortune. Lymph, when pure, was probably innocuous; but the difficulty was, how to be certain that it was pure. Even apparently clear lymph might contain an exudation-corpusele, which might be introduced into the arm of a person in vaccination. It was not always possible to ascertain that a child was not syphilitic; for sometimes in such a child there might be for a time no apparent manifestation of the disease. This occurred in the children of syphilitic mothers who were undergoing a course of iodide of potassium. Perhaps some mechanical means might be devised for preventing even the smallest particles from being taken up with the lymph.

Mr. SIMON said that he wished to put his suggestion regarding a committee in a tangible form. The Society could deal with the subject with more advantage than any of the Colleges, as it consisted of men who followed all departments of practice. He moved that the Committee should report on the best precautions to prevent the transmission of disease by vaccination.

The PRESIDENT suggested to Mr. Simon that he should leave the appointment of the Committee in the hands of the Council, with whom, according to the laws of the Society, the matter rested.

Mr. SIMON thereon withdrew his motion.

Dr. EDWARD BALLARD thought that the paper might be considered both scientifically, and in its practical bearings as it concerned the public. The paper confirmed the observations made on the continent, and reflected credibility on them. Various opinions had been expressed to account for the occurrence of the foreign cases of vaccino-syphilis. It had been said that they were attributable to dirty habits; to a slovenly mode of performing vaccination; to the use of old tubes, etc. Now, however, those who doubted the possibility of the transmission of syphilis by vaccination must be satisfied by the cases related by Mr. Thomas Smith and Mr. Hutchinson, and must begin to think that there was something in the idea that syphilis could be communicated by vaccination. Mr. Hutchinson had stated the probability that the virus was conveyed by means of its blood. This was the doctrine of the Lyons school. But it was not stated by Mr. Hutchinson at what period in the course of vaccinating the series of persons referred to, blood had begun to be mixed with the lymph. [Mr. Hutchinson said that it was not known.] Again, the state of the vesicle at the time of taking the lymph from the vaccinator was not stated. This was important; for on the eighth day there was sometimes a distinct areola, sometimes little or none. In the latter case the lymph would be clear; in the former, it would be almost certain to be turbid. In looking over the history of cases of vaccino-syphilis, he had noticed the capriciousness which attended the conveyance of syphilis, even where blood had been mixed with the lymph. In this country, where a very large number of persons were vaccinated, it might be supposed that, in a large proportion of cases, blood must be mixed with the lymph used; yet Mr. T. Smith's case was the first of the conveyance of syphilis by vaccination that had come to his knowledge. It was indeed curious that Mr. Hutchinson's cases should follow so rapidly. But it was well known that examples of some unusual occurrence sometimes came together; for instance, rare forms of aneurism sometimes occurred nearly at the same time in hospital practice. With reference to Pellizari's experiments, it must be noted that blood taken from an adult was used, and that of the three experiments performed only one—that on Dr. Bagnioni—succeeded. In this case alone the blood was warm; and the quantity used on the experiments was large. How was it, then, that, while there was so much difficulty in producing syphilis by means of a large quantity of blood, it should be produced by a very minute quantity? Possibly the irritated condition of the vaccine vesicle might impart an unusual contagiousity to the blood. Another reason might be that the blood of a syphilitic infant had a greater contagious power than that of a person having secondary syphilis after a primary chancre. M. Diday and Mr. Lee agreed that the contagiousity of secretions was greater in infants than in adults.

Mr. STARTIN said that, in a practice of thirty years, he had probably seen thirty cases of vaccino-syphilis, as well as many cases after vaccination of porrigo with enlarged glands, and contagious pustular eruption. He had not, however, traced out the history of the syphilitic cases so closely as Mr. Hutchinson had done with respect to his cases.

Mr. HUTCHINSON said that it would be a great satisfaction if the cases which he had brought forward should prove not to be syphilitic; but he had no doubt on the matter. The evidence was cumu-

lative. The eleven persons all presented similar sores resembling chancre in appearance; in nearly all the axillary glands were enlarged; in all, the disease yielded to mercury. He would bring before the Society such future evidence regarding the cases as might be afforded him, and would do all that he could to aid the Committee; but it must be remembered that an investigation of this kind could not be carried out like those on most other subjects. The suggestion of hereditary taint in the two children was important; but it was not easy to admit it, as the disease appeared simultaneously soon after vaccination in two children of different ages, who had both up to that time appeared healthy. He believed that there was nothing in the appearance of the vaccinator that would lead at the time of vaccination to the suspicion of syphilis. He could not say at what period in the first series of cases blood became mixed with the lymph; and in the second series he had not been able to ascertain whether any such admixture took place.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 2ND, 1871.

JOHN GAY, Esq., Vice-President, in the Chair.

Dr. MURCHISON reported the *post mortem* appearances in a case of Paralysis Agitans. The patient, a male, aged 71, died of typhus after suffering from the disease for twelve years. Latterly, the tremor was constant. Dr. Cayley had examined the spinal cord, and found increase of the connective tissue on the outside of the cord. This passed inwards at certain points. The cerebral canal was obliterated by a thick mass of rounded cells, leucocytes, and granules. In many spots there were patches, apparently of exudation. Two series of changes were then indicated, viz., the acute, the last mentioned, and the chronic or connective tissue changes. There was also considerable atrophy of the brain with effusion of serum, but this was common in typhus.

Dr. DICKINSON read a paper on the Nature of the Renal Calculi in the Museums of the London Hospitals. It had, he said, been stated by Dr. Roberts of Manchester that a weak alkaline solution taken by the mouth would dissolve uric acid, mixed urates, and cystine calculi, the other forms of calculi being insoluble. He had, therefore, taking for granted that Dr. Roberts's opinion was correct, made the investigation in order to ascertain what proportion of the calculi were soluble, and how many were not. Altogether there were ninety-one renal calculi in thirteen pathological museums; fifty-two of these were composed of one ingredient, and thirty-nine of two or more; of the compound specimens, twenty-two were found to consist of two ingredients, ten of three, and seven of four ingredients. There was no specimen of phosphate of lime; none of xanthine; and two of cystine. Of the whole number, thirty-one were of uric acid and urates, and two were of cystine. Not one-third were of uric acid, a much lower proportion than that stated by Dr. Roberts, who gave a result of five-sixths. It was much lower also than that of Dr. Bence Jones. Dr. Dickinson stated, however, that all the specimens tabulated in his paper were taken from the dead body.—Dr. MURCHISON expressed a doubt as to the fairness of the basis as a guide to practice, as rare calculi would frequently be alone analysed and kept.—Dr. DICKINSON replied that, with the exception of the carbonate of lime and two cystine calculi, the objection would not hold.—Mr. NUNN remarked that the difference between Dr. Dickinson and Dr. Bence Jones as regarded the proportion of lithic acid calculi, was reconciled by the fact that the majority of calculi which passed by the urethra were renal and of lithic acid, while the others would not come away.—Dr. THOMAS BALLARD said he had seen a specimen of carbonate of lime calculus.—Mr. W. ADAMS observed that a specimen of pure phosphate of lime calculus from a case of mollities ossium was in the St. Thomas's Hospital Museum.—Dr. MURCHISON wished to know what clinical evidence there was that these calculi were dissolved in the body.—Dr. DICKINSON said that he only gave Dr. Roberts's belief in the matter.

Dr. RISDON BENNETT exhibited a specimen of Cancer of the Lung taken from the body of a female, aged 42. A tumour of the breast had been removed in St. Mary's Hospital in July. There was a disproportionate amount of dyspnoea which was not accounted for by the physical signs. The patient died more of syncope than asphyxia. The whole connective tissue of the lung was invaded by a morbid growth. It was also found that the cicatrix of the operation on the breast was also affected.—Mr. MAUNDER related a similar case in which, during life, no definite physical signs were observed. Referred to Committee.

Mr. GAY exhibited a Subclavian Aneurism taken from the body of a man, aged 35, for which he had ligatured the artery in its third part. In its course the aneurism had removed a considerable part of the pleura, and pushed its way between two of the ribs. There was a clot in the distal side of the tumour, extending downwards to the radial and

ulnar arteries. The wound had almost closed. The aortic and innominate vessels were atheromatous. During life, the aneurism extended above the clavicle on the right side, produced intense pain and numbness down the arm, and was the seat of pulsation and a considerable *bruit*; on the left side there was swelling without a *bruit*. On March 29th, the artery was ligatured. The man did well until the fifteenth day, when symptoms of bronchitis set in, which proved fatal.—Mr. MAUNDER referred to a case in which the artery did not pulsate when exposed to air, perhaps from syncope or thinning of the artery.—Mr. THOMAS SMITH asked if there was any rigor with the pyrexia on the seventh day, and what the exact state of the lung was in reference to the possible occurrence of pyæmia. As to the pulsation, he did not think that arteries would pulsate when fully exposed.—Dr. CHOLMELEY said that he had seen the *post mortem* examination, and that there was no idea of pyæmia from the appearance of the wound.

Mr. HENRY ARNOTT brought forward a specimen of so-called "Osteoid Cancer" of the Fibula, removed from a man, aged 22, by amputation of the thigh by the late Mr. C. Moore. The specimen had all the characters of osteoid cancer as described by Mr. Paget and other pathologists, and the man subsequently died with rapidly growing tumours in other parts of the body. Mr. Arnott conceived that the main interest in such a specimen lay in the microscopic structure and the justification afforded by this for the title osteoid cancer. He thought that on anatomical grounds this name could only be given to a scirrhous growth in which the fibrous alveolar stroma was replaced by a net-work of bone, enclosing in its meshes such cells as were commonly met with in cancer, and without any visible intercellular substance. He had examined several specimens of osteoid malignant tumours in the hope of finding some such structure, but they had all been examples either of ossifying sarcoma, or of sarcomatous growths largely infiltrated with calcareous salts. The present tumour, from the results afforded by the microscopic examination, clearly belonged to the latter class, and he therefore preferred to call it malignant osteoid tumour, and to rank it rather amongst the sarcomata than with true cancer.

MEDICAL SOCIETY OF LONDON.

MONDAY, APRIL 3RD, 1871.

ANDREW CLARK, M.D., President, in the Chair.

Dr. J. BRUNTON related three anomalous cases which had occurred in his practice; viz., Small-pox following Measles; Small-pox following Scarlatina; and Scarlatina following Varicella. The first and second cases occurred in pregnant women. The first patient recovered; in the second, abortion took place three days before the appearance of the small-pox eruption, and two days after that of scarlatina. The third case occurred in a child, aged 4, a few days before the report; the patient was recovering.

Dr. ANDREW CLARK showed a case of Peribronchial Fibrosis. The patient, aged 19, had pleuropneumonia five years ago. He never quite recovered, and was admitted into hospital with general bronchitis, which, in subsiding, left consolidation.

Dr. MEYMOTT TIDY read a paper on the Estimation and Detection of Sugar in Diabetic Urine. The first circumstance that attracted notice was the ordinarily high specific gravity of diabetic urine, yet in some specimens loaded with sugar it was almost normal. This was difficult of explanation, unless solids might be present in liquids in different molecular states. Ordinary urinometers were not to be trusted, some being correct within ten or fifteen degrees. The presence of torula cerevisiæ was not to be regarded as any proof of the existence of sugar. Three kinds of fungi were to be found in diabetic urine, all without a trace of sugar. In diabetic urine there were three kinds of sugar. Passing to the chemical tests, the author remarked that, if carbonic acid was to be collected for the purpose of estimating the quantity of sugar, it was better collected over olive oil than any other way; and, if great accuracy were required, he suggested allowing the carbonic acid to pass into baryta water, the precipitate being weighed as a sulphate. Dr. Roberts of Manchester had suggested taking the specific gravity of both before and after fermentation, and from this estimating the amount of sugar present. The test gave very variable results; at one time very accurate, at another very inaccurate, results had been obtained. The copper test was valuable, although there were several bodies that interfered with its action; and as a quantitative test Dr. Tidy had very little opinion of it, as it was impossible to mark the exact point where the blue colour had disappeared. Moore's test depended on the dark colour, due to melassic acid, produced when diabetic urine was boiled with potash solution. A series of solutions were placed on the table, containing different but known quantities of sugar, but in each the same quantity of alkali. They ranged from 0.25 grain

of sugar to 2.0 grains. The difference of tint was perfectly marked. Dr. Tidy proposed an adaptation of Vogel's method for estimating sugar. A potash solution containing one grain of potash to every septem (seven grains) of water having been made, to ten septems of the urine were added ten septems of the solution; the mixture was boiled for one minute, and diluted with distilled water in a 4-oz. phial, similar to those used for the test-solutions, and was then compared with the test-solutions labelled as containing known quantities, until the exact tint was found. The small quantity of urine employed did not colour the water so as to interfere with the test. If any precipitate were produced by boiling, it must be filtered. If the tint were more than that indicated by a two-grain standard bottle, it must be marked and diluted. The experiments made gave:

1.25 gr. in 10 septems	} = 17.86 per 1000 gr. of urine.
12.5 gr. in 100 "	
12.5 gr. in 700 "	

} = About 8.3 per oz.

Dr. Tidy proposed to get rid of the trouble of the standard solutions by using gelatine coloured in different tints as standards for comparison.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, APRIL 5TH, 1871.

BENJAMIN BELL, Esq., F.R.C.S., in the Chair.

MR. ANNANDALE showed a Pediculated Tumour, about the size of an egg, which he had recently removed by incision from the labium of a lady. He believed that the position was very rare.

Dr. JOSEPH BELL read a paper on a case of Osteoid Cancer, and showed the preparation. It was situated in the left ulna of a gentleman aged 25, and had existed for more than a year. It had been seen by several surgeons, and had been treated by a quack by deep cauterisation. It caused intense pain. The patient had suffered for some months from pleurisy, and had several symptoms which opened the question of possible secondary infection inside the chest. There was no affection of glands. The tumour involved the head of the radius and the lower end of the humerus, so as to greatly interfere with the movements of the elbow. Five secondary tumours, varying in size from a nut to a walnut, existed in the muscular interspaces of the arm and in the biceps muscle. Amputation was performed by Dr. Bell near the shoulder. The patient made a good recovery from the operation, but eventually lost ground from lung-symptoms, and died exhausted two months after the operation. Complete paraplegia both of motion and sensation occurred ten days before death, and nine days after an outbreak of diphtheria in the family of which he was a member. There was no recurrence of the tumour in the stump, nor any where else externally. No *post mortem* examination was allowed. The tumour presented, on section, a dense white ivory-like structure; the secondary tumours being white and fibrous, with deposits of bone here and there in the substance of the larger ones. The microscopic appearances were those described by Mr. Paget in his *Surgical Pathology*. The muscular tissue in relation to the secondary tumours was perfectly healthy, with well marked striæ and no infiltration of cancer-cells.—Mr. ANNANDALE remarked on the rarity of such tumours, except in the lower end of the femur.—Dr. ARGYLL ROBERTSON pointed out the interesting feature of the absence of glandular infection coinciding with the absence of mediastinal dulness. He agreed that the paraplegia was not diphtheritic, though the coincidence was curious, but probably due to secondary disease of the spine or membranes.—Dr. GILLESPIE gave as his experience that such cases invariably recurred after amputation, either at the stump itself, or in some internal organ.

Dr. GILLESPIE read an account of the circumstances connected with the case of Death during the Administration of Chloroform which lately occurred in his hospital practice. The patient, a powerful-looking man, had fallen down a stone stair and injured his shoulder. He was seen by a surgeon, and afterwards by a bone-setter; and seven weeks afterwards came to hospital with his right humerus still dislocated. An attempt was made to reduce the dislocation by the heel in the axilla and by manipulation, without success; and two days afterwards a second attempt was made by means of the pulleys. While this was being done, and the patient had just been shouting and struggling violently, he suddenly ceased to breathe. The chloroform was at once removed, water was dashed in his face, his tongue was pulled forwards, artificial respiration carried on, and in a few minutes the galvanic battery was applied. Three or four faint sighing respirations were obtained during this time; but the heart did not again beat, and the patient did not rally. On examination, the heart weighed sixteen ounces and a half, and was flabby; it was not contracted, but in folds. The tricuspid aperture admitted seven fingers. The veins and the liver were much congested;

the latter weighed four pounds four ounces. Under the microscope, the muscular fibres of the heart were found to be suffering from fatty degeneration. The injury to the shoulder was a rare and complicated one. A fracture of the greater tuberosity had nearly separated it from the head of the bone, which itself was outside the capsule. The tendon of the biceps was out of its groove. The capsule above was much thickened, and had united in such a manner that no amount of force, even after the muscles were cut away, was able to replace the head in the glenoid cavity.—Mr. ANNANDALE asked the question, Ought we ever to give chloroform? if, as he had been told, ether had never caused a fatal result, while no man could ever be sure that chloroform would not kill.—Dr. ARGYLL ROBERTSON expressed his opinion that ether caused vomiting more frequently than chloroform did, and stated that in the eye-wards they now always gave two ounces of brandy two hours before giving chloroform, and found that not only was the vomiting less, but also that less chloroform was needed.—Dr. SIMPSON approved of the use of the alcohol in every case in which the state of the heart was doubtful. He believed that it was important to give chloroform rapidly and in full dose. He stated that ether also had had its fatal results.—Dr. GEORGE W. BALFOUR believed that giving chloroform nearly pure was quite as likely to have fatal results as giving it gradually. He believed that the real source of danger was in the condition of the right side of the heart.—Dr. GILLESPIE was against the use of brandy before operation, and also against the rapid administration of nearly pure vapour.—Dr. FRAZER, with regard to the use of the interrupted current, believed that in most cases it did more harm than good, but referred to the experiments of Onimus and Legros on the continuous current, which was found to be valuable in re-exciting cardiac action. With reference to the question of vomiting, Claude Bernard found that morphia, if given before chloroform was administered, not only diminished the risk of vomiting, but also the amount of chloroform required.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS, IRELAND.

WEDNESDAY, MARCH 29TH, 1871.

AQUILLA SMITH, M.D., in the Chair.

MR. HEWITT read a paper on the Present State of Therapeutics. Having said that the present was an age of scepticism with respect to the subject of his essay, as well as to others of scientific, political, and social interest, and having expressed a conviction that for this very reason important advances would shortly be made in therapeutical science, he proceeded to describe the earliest system of therapeutics. This was considered in what might be called its three stages. The first was essentially *empirical*, and was useful in some respects—thus to it we owe the discovery of the specific action of quinine in ague, and of ipecacuanha in dysentery. The second stage consisted in the application of the *same* remedies in all *analogous* diseases; so the metallic salts were given in all the various forms of convulsive affections, epilepsy, chorea, etc. In the third stage of this system, *local* lesions were looked upon as the result of *constitutional disorders*, and so the treatment was of a general nature. An example was met with in the case of gout. Subsequently, two schools sprang into existence—namely, the expectant and the homœopathic. Both were advantageous in some respects, but both failed for the same reason that all exclusive systems of therapeutics fail, from disregarding the axiom that *no one method of treatment is of universal application*, that *in all the individual should take the first place*. The author, proceeding to the consideration of the present or physiological, science of therapeutics, said that statistics on the subject were sadly deficient, and that to be of value they should be based on two rules: first, the employment of only one drug at a time; and, secondly, the giving of that drug in doses sufficient to produce decided effects. With respect to the latter axiom, it was shown that the same drug may in different doses produce most variable results. Again, much depended on the constitutional state of the individual—a dose of one grain of ipecacuanha might produce vomiting in pregnancy, while in a case of dysentery thirty grains would probably cause no emetic effect. An important aid in the physiological study of therapeutics would be found in the determination of the action of certain drugs on a series of healthy individuals. Mr. Hewitt made some reflections on the scattered manner in which instruction in materia medica is at present conveyed, and advocated the founding of a demonstratorship in that subject in the leading medical schools. He illustrated the objections brought against the system of comparative experiments on the lower animals, by adducing Dr. John Harley's remarks on neurotics. The argument against the physiological system of therapeutics, based on the different effects of drugs on healthy and diseased frames, was shown to be untenable; and, in conclusion, the author advocated the elabora-

tion of this system as most likely to bring about the greatest advances in the science of remedial treatment.

Dr. W. G. SMITH recapitulated the leading points in his essay on Therapeutics, read at the meeting of the 15th of March; and an animated discussion ensued.—Dr. GRIMSHAW deprecated the exclusive attention now paid to therapeutics as distinguished from materia medica. He objected to the performance of experiments on healthy frames, showing that the action of quinine in ague could never have been discovered by a series of such investigations. In his experience, alcohol did not, as a general rule, produce a lowering of the temperature of the body in disease.—Dr. MACSWINEY regretted that Mr. Hewitt had ignored the value of clinical therapeutics.—Dr. BURKE deplored the present ignorance so rife among students on the subjects of therapeutics and materia medica.—Dr. H. KENNEDY spoke of the multiplicity of remedies as presenting an obstacle to the elucidation of the many difficulties attending the pursuit of the science in question.—After some further remarks from Drs. Stewart, Jencken, and others, the Chairman, in conclusion, made some general observations on the subject of therapeutical science. The meeting then separated.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, APRIL 21ST, 1871.

ALBERT J. WALSH, Esq., President, in the Chair.

MR. CROLY exhibited a large portion of False Membrane, which had been spat out by a child, aged 4 years and 2 months, who was suffering from Croup.

MR. MORGAN presented a specimen of Hepatic Gummous Deposit; also a piece of tough meat weighing two ounces, which was removed from the throat of a man found dying of asphyxia in the street.

MR. CROLY detailed a fatal case of Peritonitis, in a man the subject of double scrotal hernia, who had received a kick on the left side of the tumour.

MR. HEWITT showed the Brain of a child, aged 8, who died of Tubercular Meningitis of a fortnight's duration. Traces of wide-spread and severe inflammation were observed in connection with the dura mater, the arachnoid, and the pia mater; while but a trifling deposition of miliary tubercle had taken place.

MR. CROLY presented two specimens of Scirrhus; one engaging the penis, and the second involving the breast.

THE PRESIDENT called on Dr. KIDD to resume the debate on the subject of Revaccination, which had been adjourned from the previous night of meeting. Dr. Kidd commenced by quoting a letter received from Dr. Patton, of Tandragee, in which that gentleman mentioned that he had lately met with an outbreak of variola in a family of vaccinated persons. Dr. Kidd quoted various authorities and statistics to prove that vaccinated persons might take small-pox. In an epidemic of this disease at Marseilles, in 1828, of 8,000 unprotected persons, 4,000 had variola; of 30,000 vaccinated, only 2,000 suffered from the disease. At Newark-upon-Trent, in 3,600 inhabitants, of 1,097 who had been vaccinated, 55 took variola. An authority had stated that of 347 protected medical men, 12.6 per cent. had the disease. As the result of these statistics, it appeared that five per cent. of the vaccinated took small-pox, while the percentage rose to ten or twelve in cases of unusual exposure to contagion. A second point to determine was the time during which the protective efficacy of primary vaccination lasted. Of 853 unvaccinated children, 88 per cent. took small-pox before the end of the tenth year. Of 1,005 protected persons, 15 per cent. had had the disease at the end of their tenth year. At 24 years of age, the vaccinated were on a par with the unvaccinated at 10 years old, as regarded susceptibility to the contagion. Dr. Kidd looked upon the result of Brice's revaccination test as a demonstration of the fact that the period of incubation is shortened according as the system is the more protected. In support of this, he quoted his own experience in two cases of revaccination. The patients were sisters: one had already been revaccinated when 12 years old, the other had undergone only one operation. He vaccinated both some time ago, and found that the vesicle ran a more rapid course in the girl who had already been revaccinated. He advocated the performance of the second operation about the tenth year.—Mr. PRICE had been sixty-seven years in the profession, and had not known a single case of variola to occur among 3,000 people whom he had vaccinated. Mr. Price always made it a point to see his vaccination cases on the fourth, eighth, and twelfth days after the operation. He believed that revaccination was quite unnecessary, if the primary infection took perfectly.—Dr. MAPOTHER said that albuminous products, when present in the blood in large quantities, always increased the process of zymosis. Hence it was that children, in whom the albuminous glands—the thy-

mus gland and suprarenal capsules—were well developed, were liable to contract some zymotic diseases, including variola. Since the outbreak of the present epidemic, only three fatal cases of small-pox had occurred in the city of Dublin, and in none of these was there conclusive evidence of vaccination having been performed.—Dr. WHARTON mentioned an instance of fatal results following the second operation. He considered that the presence of a good vaccination mark removed any necessity for revaccination, and he deplored the prevalence, in unprofessional circles, of the idea that lymph might be exhausted from the system in the process of arming points.—Dr. MACNAMARA insisted on the importance of bearing in mind, in questions like the present, the existence of a peculiar susceptibility on the part of individuals to take and retake certain diseases. He regarded the performance of revaccination as uncalled for.—Mr. MORGAN related the history of a fatal case of confluent small-pox in a relative who had been three times vaccinated previously to his last illness. His brother-in-law, also, suffered from semi-confluent variola, after having been three times vaccinated.—Dr. JAMESON looked upon revaccination as unnecessary; it conferred no additional protection against small-pox.—Dr. H. KENNEDY said that in the present epidemic in London the mortality was as high as fifty per cent. in the unprotected, while in the protected it averaged nine per cent. He grounded his opinion as to the efficacy of revaccination on the numerous statistics on the subject which had been published.—Dr. LEEPER, of Loughgall, said that, in his experience, he had met with some inflammatory action in two or three cases out of many of revaccination.—Dr. POLLOCK had recently revaccinated about ninety people, and, with the exception of a swelled arm in two cases, had met with no untoward results.—Mr. HEWITT said that a child had died in Baggot Street Hospital, a few days before, after primary vaccination.—Dr. C. H. MOORE, in reply, pointed out the fallacious nature of the argument brought against both vaccination and revaccination on the ground that fatal results occasionally followed the performance of these operations. An eminent continental surgeon had remarked that, in some cases, the slightest abrasion of the skin might be followed by fatal consequences. Two cases had been recorded as terminating fatally after revaccination. In one, the patient was suffering from diabetes; in the second, the patient had gout, and was over sixty years of age. It was stated that revaccination, lately rendered compulsory in the Prussian army, had reduced the mortality from small-pox to such an extent that now only two fatal cases occurred for every one hundred and four such in former times. The present epidemic was the most severe outbreak of variola that had prevailed since the beginning of the nineteenth century. In Liverpool, only two revaccinated persons had been reported as suffering from small-pox during the past few months; and these had not been revaccinated in Great Britain.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, APRIL 1ST, 1871.

JAMES STANNUS HUGHES, M.D., President, in the Chair.

DR. T. E. LITTLE detailed an interesting case of Cervical Spinal Disease. The patient had been under observation from the first appearance of symptoms. Of these, the earliest in order of time was the occurrence of complete aphonia, due to paralysis of the left vocal cord. After death, the odontoid process was found to be freely moveable, and the ligamentous structures in connection with it were completely destroyed. From the observed *post mortem* appearances, it was evident that the disease had originated in the synovial membranes of the two upper cervical vertebræ, and that the bony parts had been secondarily involved in the destructive processes.

Mr. TYRRELL exhibited two casts illustrative of the results of a partial operation on a large Cystic Tumour of the Lower Jaw. A woman, aged 35, strong and healthy, had come to him for advice. She said that a kernel-like swelling had first appeared on the side of her face, and had gradually increased in size. On manipulation, the tumour was elastic, and had the usual crepitating feel of cystic growths. Mr. Tyrrell determined not to remove the jaw-bone, but to evacuate the contents of the tumour, this the more especially, as the bone did not appear to have suffered much injury. The operation proved most satisfactory, as a comparison of the casts taken before and after it demonstrated. A dried specimen of the jaw-bone which had been removed for a similar affection was shown. It presented the characteristic parchment-like expansion which osseous structures undergo in an advanced stage of cystic disease.

Dr. HAYDEN said that he wished to bring forward a case of Cerebro-Spinal Meningitis, in most respects the facsimile of one which he had detailed at the last meeting of the Society, but which offered some impor-

tant points of contrast to the former. On March 17th, a girl aged 24, who was the subject from time to time of severe headaches, was seized with pain in the head, vomiting, and general febrile symptoms. She was admitted to hospital three days later. At this time, the temperature in the axilla was persistently 101 deg. Fahr. There were photophobia and complete insomnia. The head, too, was much retracted. The symptoms closely resembled those of typhoid fever, but there was no eruption or diarrhoea. On March 29th, right convergent strabismus occurred; on the 30th, symptoms of coma supervened; and she died at 3 P.M. on the 31st. Examination of the brain after death revealed general hyperæmia of the pia mater. The arachnoid membrane between the anterior and middle lobes of the cerebrum was opaque; the floor of the fourth ventricle was slightly opaque; but in both situations this change was due to mere thickening of the structure, and not to the occurrence of any exudation. Unfortunately, it was impossible to obtain an examination of the spinal cord, but the symptoms present in the case sufficiently indicated the extension of disease from the brain to the cord.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, APRIL 5TH, 1871.

JOHN THORBURN, M.D., President, in the Chair.

Brain in Aphasia.—Dr. HADDON narrated the history and exhibited the brain of a man who died with right hemiplegia and loss of speech. His first attack of paralysis occurred in 1867, but from this he recovered almost completely. In 1869, after a fit of anger, he lost the power of speech so entirely that no one could understand him. After a night's rest, however, this passed off, though it was apt to recur when excited. In September, 1870, his speech again became affected, and this time the attack consisted more of a difficulty in finding words than of articulating. In December he became much worse, both as regards muscular power and recollection of words. He died in March of the present year. After death the left side of the brain was found softened on the lower aspect, particularly in the third convolution. In remarking on the case, Dr. Haddon said that the case could not be taken to prove more than that if the faculty of speech be located in one hemisphere, it is in the left.

Arrest of Development.—Mr. BRADLEY showed a case of arrest of development in a foetus born at the full period of gestation. The facial bones were entirely absent; and the thigh-bones and bones of the forearm were rudimentary. Mr. Bradley pointed out that the arrest of development in the head affected solely the first branchial arch and Meckel's cartilage; and that, while those parts of the eye and ear which are integumental growths were absent, the parts which are developed from the cerebral vesicles were present. In remarking upon the case, he referred to the subject of correlations in the growths of distant parts, and suggested that in some cases a solution of the problem might be found by referring them to an arrest of development in embryologically related structures. Amongst other illustrations, he observed that cats with blue eyes were always deaf, and that this singular correlation might, perhaps, be referred to an arrest of development in the closely related parts from which certain structures of the eye and the ear are developed.

Pedunculated Fibroid of the Uterus.—Mr. WHITEHEAD exhibited a specimen, and described the operation undertaken for its removal. The patient, aged 44, suffered from the usual distressing symptoms, and had also great difficulty in defæcation. A tumour was found in the recto-vaginal pouch, freely movable, but incapable of being pushed into the pelvis. The diagnosis between an uterine and an ovarian tumour was doubtful. Mr. Whitehead cut down on the tumour and drew it into the vagina, ligatured the pedicle, and cut off the tumour. The patient sank in sixty-four hours. Nothing was found to account for death. The tumour was of the size of a small cocoa-nut.

Invalid Mattress.—Dr. RANSOME exhibited one of American make as a substitute for the water-bed. It was made of woven wire, and possessed the advantages of efficiency, cheapness, and durability. Several members expressed their satisfaction with it.

Ovariectomy.—Dr. THORBURN narrated a case in which he had recently operated under unexceptionably unfavourable circumstances. The patient, aged 58, was thoroughly broken down in health, had anasarca, chronic bronchitis, and, a year previously, hemiplegia. The administration of chloroform brought on fearful attacks of coughing, and seemed to be constantly imperilling her life. After the operation was completed, she never had a bad symptom. She was allowed to eat almost anything she wished for. The pedicle was ligatured and returned.

Pelvic Tumour.—Dr. THORBURN showed a tumour removed after death from the uterus of a patient whom he saw in consultation. She was an idiot, and lay moaning from pain, but could give no account of herself

whatever. The friends also knew little of her. The interest of the case lay in the great difficulty there was in determining that the tumour was not a foetal head, and this in spite of the patient being unmarried and having a perfect hymen.

Ovariectomy Instrument.—Dr. LLOYD ROBERTS exhibited a case made by Krohne and Sesemann.

Fibrous Polypus.—Dr. LLOYD ROBERTS showed a specimen. It was removed from the posterior surface of the cervix uteri with the single wire *écraseur*. It was of the size of a large closed fist, and the pedicle had the diameter of a sixpence. The patient, who had previously suffered greatly from flooding and constant nausea, was immediately relieved of her symptoms.

BRITISH MEDICAL JOURNAL.

SATURDAY, MAY 13TH, 1871.

STATE RELIEF.

OUR Poor-law system of relief is so largely interwoven with medical duties and services, that Mr. Smith's motion on Friday night, for an inquiry into the operation of the Poor-law, was regarded with considerable interest by a large section of the profession. The memorial which Mr. Smith presented to the House from the Parliamentary Committee of the British Medical Association, before making his motion, probably expressed that opinion very fairly. All of us who have considered the question, and the medical officers of the Poor-law service especially, have long since arrived at the conclusion that a very large amount of the mass of pauperism which weighs upon the resources of the nation, arises from sickness of a preventable character; and that under a better organised system of Poor-law relief, and especially by attributing to the medical officers of the Poor-law preventive as well as curative functions, much of this pauperising sickness would be prevented; and where it is unavoidable, it might be more promptly and effectually cured. Mr. Smith declared, in the course of a very able exposition of the weak points of Poor-law administration, that there was scarcely any part of the administration of the Poor-law so unsatisfactory as the system of sick relief. At present, it pauperised the applicant, who, though able and willing to provide himself with everything except medical advice and assistance, was unable to get that assistance without either becoming a pauper or burdening himself with a long doctor's bill. Some amendment of the system of medical relief was needed which would enable the labouring poor to obtain medical relief, as far as possible, at some small cost to themselves, so that their spirit of self-dependence should not be destroyed even in the time of sickness. The system which had been successfully carried out in Ireland embodied this principle, and an inquiry into the metropolitan system would show the absolute necessity for its amendment, so that it did not result in pauperising the people.

Mr. Kennaway went still further into detail on this head. He said there was no doubt that it was the doctor's bill which often broke down the working man. When sickness came, despair frequently supervened, and the family, from being independent, sank into the mire of pauperism. What we should do, therefore, was, in the first place, to see whether our means for the prevention of disease were satisfactory, and, in the next place, whether our appliances for battling with it when it broke out were adequate to the resources of such a great country as this. With regard to the first point, we had had a Sanitary Commission which had taken evidence and reported; and he trusted that legislation on the subject would not be neglected. As to the second point—namely, the provision for medical relief, we yearly expended upon it a sum of £282,000, and we had a numerous body of educated and laborious men throughout the country whose business it was to see that medical relief was properly given. That might seem to be an adequate provision; but remembering that there was a population of 22,000,000 to be dealt with, we had to consider whether it was adequate. The proportion in which medical men were to be appointed,

as recognised by the Poor-law, was one to every 15,000 inhabitants—one to every 15,000 acres. But, in point of fact, there were no fewer than 65 medical men who had a very much larger acreage to traverse, and in 205 cases the population was over 15,000. There were 98 medical men who had charge of from 15,000 to 20,000 people; 48 from 20,000 to 25,000; 28 from 25,000 to 30,000; and 31 who had charge of more than 30,000. The average salary was £68, which, by fees for midwifery, etc., was raised to about £100. The class of men who accepted these appointments consisted mostly of young men who wished to get some private practice, and very often the interests of the poor were sacrificed to that desire. The medical men did their duty as far as they could, but the widespread evil was, that a sufficient provision was not made for the large number of people who were dependent upon them for medical assistance. The medical profession were not themselves satisfied with their position in the matter, and were demanding that an inquiry into the whole subject should be set on foot. A comparison between the case of Ireland and that of this country in connexion with this question might be instructive. During the last twenty years, medical relief in Ireland had been administered under the Medical Charities Act, with the greatest success. Under that Act, two Medical Commissioners of at least ten years' standing, and Medical Inspectors of at least seven years' standing, were appointed to assist the Poor-Law Commissioners, and none of these gentlemen were allowed to enter into private practice. All the Unions were divided into dispensary districts, in which the ratepayers, in conjunction with the guardians, were formed into dispensary committees, under whose management the medical relief was administered. The working of this system had been most satisfactory, as under it the small-pox had been kept away from Ireland almost entirely, and the system itself had been declared by a very high medical authority to be the most admirable one for providing medical relief to the poor in Europe. Whereas the number of cases of preventable fevers that occurred annually in England was 1 in 190, in Ireland there were only 1 in 308; while the cost of administering the system was only three shillings, or, perhaps, even less per head of the population in the latter country, it was seven shillings in the former. Under these circumstances, he thought that he had, at all events, made out a case for inquiry.

To all this, Mr. Stansfeld, in effect, replied that the Poor-law Board was in itself a Commission; that it was competent to conduct all necessary inquiries, and desirous to receive and willing to consider all suggestions. We cannot profess to be surprised at this conclusion; nor can we declare ourselves satisfied with it. The fact is, that very much depends upon the temper and activity of the President. There has been nothing to complain of in this respect, either with Mr. Hardy or Mr. Goschen; and we are well disposed to believe that, in sympathetic courtesy and in broad and frank liberalism, the existing President is not to be surpassed amongst public men. But the enormous labour of detail involved in the administrative work of the department, and the large measure of parliamentary and general political labour thrown upon Mr. Stansfeld, as a Cabinet Minister, must greatly discourage any tendency which he may have to undertake an initiative of such vast and interminable perspective as was opened by Mr. Smith and Mr. Fawcett. Moreover, by reducing the proposed inquiry to the shape of a judicial consideration, by the office, of irregular and unsolicited suggestions from various quarters, Mr. Stansfeld has not, we imagine, hit upon the best method of collecting reliable materials for judgment, or of building up coherent elements for any large reform. He at once rejects the systematic assistance in the inquiry of independent minds, and throws the whole responsibility of suggestion, in one of the most complex and difficult of national questions, upon voluntary reformers from the outside. They have been too often snubbed at Gwydyr House not to approach its precincts with a feeling of coldness and distrust, even at the invitation of Mr. Stansfeld; and we much doubt whether the general result of the reception by Government of Mr. Smith's motion, is not, in fact, a postponement of vital but inconvenient questions to the Greek Kalends.

DEATHS FROM ANÆSTHETICS.

THE very interesting little discussion which appears, from our report of a recent meeting of the Medico-Chirurgical Society of Edinburgh, to have followed Dr. Gillespie's full and satisfactory statement of the recent case of death from chloroform in the Edinburgh Infirmary, appeals with considerable force to the administrators of chloroform. It certainly does not disclose a very satisfactory state of things as to our knowledge of what are the best means of administering the agent, what the causes of peril, and what the best means of treating threatening symptoms and endeavouring to avert danger. The members present spoke with the authority of considerable experience, but they could hardly differ more widely. The principle of administration on which we incline to think most reliance is placed in London is the limitation of the proportion of chloroform inhaled to a maximum of five per cent. diffused through the inhaled air. It is on this principle that Clover's apparatus is constructed: this is the last invented and most approved instrument in several of the London hospitals, and is that most largely employed by the leading surgeons of the metropolis in their private operations, where their individual sense of responsibility is greatest. There exists, however, unquestionably, altogether another school of opinion; and there are very many who share the opinions expressed with so much emphasis by Dr. Skinner last week, that the precise physical graduation of the dose, as to proportion and amount, is a wholly useless formula. We observe at the Edinburgh Society an expression of opinion which goes to the extent that the safest plan is to administer nearly pure chloroform at the onset. If so, Clover's principle is altogether wrong, and the conclusions of the school of Snow are altogether wrong. That opinion, however, formally enunciated by Dr. Simpson, was as distinctly contested by Dr. George Balfour. Again, Dr. Argyll Robertson was of opinion that a small dose of alcohol should be administered shortly before the chloroform was inhaled, as it facilitated the safe production of anæsthesia. Dr. Gillespie was as clearly against the use of alcohol. It is a sort of precaution which is frequently made much of, to have at hand an electro-magnetic apparatus or a galvanic battery when chloroform is administered. Dr. Frazer took this opportunity of pointing out that the interrupted current—that most often used to promote recovery—probably does more harm than good; and that the continuous current only should be tried. Of pathological doctrine, we find only the usual reference to the "right side of the heart" as the incriminated organ.

All this seems only to show that our knowledge of much that relates to this subject is exceedingly imperfect, not to say loose and contradictory. The subject is undoubtedly one of extreme difficulty; but its importance is not less than its complexity. Professional responsibility is very closely engaged in the matter. The most palpable inferences from this discussion are: that opinions in Edinburgh on the most vital points in connexion with the best mode of administering chloroform and of averting death are far from being unanimous, or from according with what is, we believe, the preponderant opinion in London; that the modes and causes of death from chloroform remain in doubt; and that it is necessary and proper that the fullest contribution of facts should be made to our professional records, wherever they can throw light upon the dangers of chloroform, the *post mortem* conditions where it has proved fatal, the physical signs and collateral facts where it has given rise to alarming symptoms, and the statistics of its administration. Is it true that, out of all the enormous number of cases in which it has been administered to lying-in women, it has never produced any fatal accident? If so, what is the explanation of such a fact? Is it consistent with the "right side of the heart" theory?

The great favour with which chloroform has long been regarded in this country is due, probably, to a combination of causes—its convenience as to bulk and quantity, the rapidity and admirable completeness of its action, and the facility with which its action may be moderated or increased. Perhaps, also, fashion and the influence of a great name have contributed to give to it a monopoly of favour in this king-

dom which it is far from enjoying in other countries. It has, we are informed, lost very much ground in America and in France.

The questions to be studied are, How far are the perils of chloroform inherent in its high efficiency as an anæsthetic agent? How far are they incidental and non-essential? Ether is declared to be almost absolutely safe. Nitrous oxide gas we all know to approach still more closely to that desirable standard. We know also, however, that both are more bulky, more costly, less readily at hand, less transportable, less universally applicable, than chloroform. There remain then several great questions open to discussion and to study: In what cases can we and ought we at present, in our hospitals and private practice, to substitute ether and nitrous oxide for chloroform? What rules, if any, can we lay down for administration and for the treatment of alarming symptoms, beyond those which were stated in this JOURNAL for December 4th, 1869? Are these rules universally accepted? If not, how can they be amended? There remains the final duty and privilege of a quest after a yet unattained agent, as safe as nitrous oxide, as portable, as convenient, and as continuous in its effects, as chloroform. We imagine that we here express opinions and conclusions likely to be widely accepted by the profession. If there be any who differ from them in any one particular, we shall be glad to give them an opportunity of freely expressing their views. It might be well, we think, that at this moment experts should take their share in the discussion—should tell us if our fears are exaggerated, our warnings groundless, our suggestions untenable. Not only is more light wanted, but an exact estimation of that which the most enlightened may possess, or may think they possess.

SANITARY LEGISLATION.

WE cannot regard the withdrawal of Mr. Göschen's Local Taxation Bill with any feeling of regret. In many of the provisions of that Bill, we were naturally led to take a profound interest. They did, in fact, embody in legal form some of the recommendations of the Royal Sanitary Commission, in which our Association has shewn the liveliest concern. Valuable as are the labours of that Commission, it cannot be concealed that, in the opinion of many of our most competent sanitarians—and especially of those to whose initiative the appointment of the Commission and the establishment of the basis of its labours were chiefly due—its recommendations were from the first regarded as too limited and superficial; and the scope of its inquiry was held to be insufficient. Prompt legislation was held in this case to mean insufficient and unsatisfactory legislation; and the partial character of Mr. Göschen's propositions rather intensified than lessened these objections to the Report of the Commission. The Joint State Medicine Committee of our Association and of the Social Science Association is summoned to consider these points; and, pending its counsels, we have been reticent of comment. But it is matter of congratulation, rather than of regret, that it can now proceed with greater deliberation than would otherwise have been possible, and that it will be less pressed upon by purely parliamentary and tactical considerations.

MR. LAWSON TAIT is a candidate for the appointment of Assistant-Surgeon to St. Thomas's Hospital.

DR. J. GOW BLACK has been elected Professor of Natural Science in the University of Otago.

DR. BURNEY YEO has been appointed Assistant-Physician to the Brompton Hospital for Consumption, to fill the vacancy caused by the promotions consequent on the resignation of Dr. Burdon Sanderson, F.R.S.

THE President, Vice-President, and Council of the Pharmaceutical Society of Great Britain, have issued cards of invitation to a *conferenza* to be held, by the kind permission of the Lords of the Committee of Council on Education, at the South Kensington Museum, on Wednesday evening.

A MOVEMENT has been set on foot to establish a Cottage Infirmary at Fordingbridge.

A MEETING has been held, under the presidency of the Marquis of Westminster, to reinforce the funds of St. George's Hospital.

THE annual dinner of the medical officers of the united services is announced for the 26th instant, at Willis's Rooms; Dr. Armstrong, C.B., the Medical Director-General of the Navy, in the chair.

MR. IBBETSON's gold medal, offered through the Odontological Society, will be awarded for the best essay on the Histological Structure of the Human Teeth.

THE *Wiener Medicinische Presse* states that Dr. H. Bamberger, at present professor at Würzburg, was chosen by the meeting of "Professoren-Collegium" of Saturday, to fill the chair vacant by the death of Professor Oppolzer. Dr. Schrötter, the distinguished laryngoscopist, has been appointed *locum tenens* for the Summer Semester.

THE presentations of graduates and prizemen at the University of London took place on Wednesday; Earl Granville, Chancellor of the University, presiding. Mr. Lowe was present, and expressed his satisfaction at the moderate demands which his constituency made upon his time.

ON Tuesday, at the meeting of Convocation of the University of London, Dr. Parkes, F.R.S., Mr. Jacob Waley, M.A., and Dr. Weymouth, D. Lit., were chosen for the Senatorial list of three persons to be submitted to Her Majesty for selection therefrom of a Fellow to occupy the vacant seat in the Senate. Dr. Parkes obtained a very large majority of votes, as was expected.

BY permission of the President, lectures will be delivered at the Royal College of Physicians, London, at five o'clock on each of the following Fridays and Wednesdays: Dr. Acland, Friday, June 2nd, "On National Health"; Dr. Guy, June 7th, 9th, 14th, "On War in its Sanitary Aspects, with special reference to the period from 1793 to 1815."

MR. BIRKETT will, on Monday the 29th instant, commence a course of six lectures in the theatre of the Royal College of Surgeons, on the Nature and Treatment of New Growths, in continuation of his course of last year. After the completion of this course, Mr. J. W. Hulke will deliver three lectures on the Minute Anatomy of the Eye, in continuation of his courses of the last two years.

THE fatal cases of small-pox in London, which in the three previous weeks had been 265, 276, and 261, rose last week to 288, the highest weekly number that has occurred during the present epidemic, and almost three times as high as the largest number returned in London in any week of the several epidemics or outbreaks that occurred during the thirty-one years of 1840-70. Of thirty-one deaths in Battersea, fourteen were referred to small-pox.

SANITARY LEGISLATION IN ITALY.

A COMMISSION appointed in 1866 by the Ministry of the Interior in Italy, for the purpose of compiling a scheme of sanitary law for the kingdom, has lately completed its labours; and a Bill has been presented to the Senate. The Bill consists of 339 clauses, arranged under the following headings:—1. The care of the public health, and the functionaries called to exercise it; 2. The composition of Councils of Health, and their functions; 3. The practice of the different branches of the healing art; 4. The Pharmacopœia; 5. The salubrity of dwellings or of inhabited places; 6. The salubrity of commercial articles of food and drink, and of potable water; 7. Public and private sanitary institutions; 8. Children's labour; 9. Unhealthy workshops, manufactures, and branches of industry; 10. Endemic, epidemic, and contagious diseases; 11. Medical statistics; 12. Cemeteries and burials; 13. Epizootic diseases; 14. Maritime hygiene.

THE FRENCH POLAND.

THE Society of Surgery of Paris has decided that its corresponding members in the provinces annexed to Germany shall preserve the title of corresponding national members, and that henceforth the surgeons of Alsace and Lorraine shall be elected with this title.

THE COMMUNE AND THE DOCTORS.

BY a decree of the Commune, practitioners and students of medicine from nineteen to forty years of age are incorporated in the *bataillons de marche* of the National Guard. Those actually attached in a working sense to hospitals are exempted from the decree.

BABY-FARMING.

IF we may assume that our readers continue to feel an interest in this subject, they will, we believe, have been gratified to observe that the Government have fulfilled the partial pledge given to a recent deputation of the Infant Life Protection Society. On that occasion, Mr. Stansfeld (BRIT. MED. JOUR., April 8th), in replying to Mr. Ernest Hart, on behalf of the deputation, promised that he would advise his colleagues, if they could not accept the proposed measure drafted by Mr. Manning and Mr. Charley, M.P., on behalf of the Society, to grant a Select Committee to consider the subject. This Mr. Bruce did on Friday last on the motion of Mr. Charley, observing at the same time that, if the Government were unable to accept the Bill in question without inquiry, it might be stated that they had made two or three ineffectual efforts to draft on their own part one which would be more satisfactory. The Committee has been nominated. It is a very good one, and includes Mr. Sclater-Booth, Dr. Brewer, Mr. Jacob Bright, Mr. Charley, Sir Thomas Hesketh, Mr. Illingworth, Mr. Keown, Mr. Kinnaird, Mr. William Johnston, Viscount Mahon, Mr. Melly, Dr. Lyon Playfair, Mr. Raikes, Mr. Richard Shaw, Mr. W. M. Torrens, Mr. Walpole, and Mr. Winterbotham.

LOUISE LATEAU.

DR. DAY of Torquay writes to us to call attention to the fact that the hæmorrhage occurring on the hands and feet of Louise Lateau was preceded by a vesicle, which, after becoming distended with serum, spontaneously burst, and that blood then began to ooze from the exposed *cutis vera*, and continued to flow for several hours, during which she was in a motionless and apparently unconscious ecstatic state. Will the needle hypothesis, he asks, explain all these phenomena? With regard to the vesication, it is to be observed that it never occurs on the forehead; and on one occasion mentioned by Dr. Lefebvre, it did not occur in connection with the bleeding from the left side, but, the texture of the skin remaining natural, the blood was seen to flow from three small points scarcely visible by the naked eye. These bleeding points were similar to those from which the bleeding occurred on the forehead. If the vesication and the bleeding were quite natural and not artificial phenomena, we should expect them to occur constantly and uniformly, together or consecutively, wherever the bleeding manifests itself. We admit that the needle hypothesis does not explain the vesication, neither can we undertake to say what is the precise cause of the vesicles in this case. We once saw a young woman who had been repeatedly admitted into a metropolitan hospital in consequence of the interest excited by a monthly appearance of vesicles on her arms. At length the mystery was solved by the discovery of blistering-plaster on her arm during the night. This was a clumsy expedient. We have liquid vesicants equally efficacious, the employment of which would be far more difficult of detection. Dr. Lefebvre has been at considerable pains to prove that the bleeding phenomena in this case are not the result of any known natural disease. Thus far we agree with him, though it is evident that there is a tendency, of by no means rare occurrence, to bleed freely from slight wounds and abrasions. If Dr. Lefebvre will adopt effectual means for preventing or detecting fraud, and if, in spite of careful watching by trustworthy attendants, the phenomena continue to recur, we will reconsider his suggestion, that they

belong to the region of the supernatural. Dr. Day suggests that if, instead of speculating on the nature of this remarkable case, one or two of our brethren, in whom the profession at large feel confidence, would personally examine Louise Lateau, he feels sure that Dr. Lefebvre would do all in his power to promote the object of their scientific expedition, which need not occupy more than a few days. If he had not been prevented by physical infirmity, he would have undertaken such a pilgrimage before writing his article.

THE EDINBURGH UNIVERSITY CLUB.

THE quarterly dinner was held at the St. James's Hall Restaurant, 69, Regent Street, W., on Wednesday, May 10th, 1871, at 7 P.M. Drs. Cook and Stacpoole and Professor John Cleland were elected members of the Club by the Council, which met before dinner. The Right Hon. E. S. Gordon, M.P., Q.C., LL.D., occupied the chair. Letters were read from the Right Hon. John Inglis, D.C.L., the Right Hon. Lord Moncrieff, LL.D., Sir Alexander Grant, and Professor Campbell, who were prevented from attending the dinner. After the usual loyal toasts, the Rev. K. M. Phin, D.D., in proposing success to the Edinburgh University Club, alluded to a Report of the Committee appointed by the General Council of the University of Edinburgh to consider the present constitution of the Board of Curators. This report (as we previously intimated) recommended "that, in addition to the existing Board of Curators, two additional members ought to be appointed by the University Council." This recommendation was warmly endorsed by the members present. Professor Masson, in a most humorous speech, proposed success to the sister Universities of the United Kingdom; and the health of the right hon. chairman was drank with much enthusiasm. Forty-nine graduates in the various faculties attended the dinner, and the entertainment passed off most successfully.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

A QUARTERLY meeting of the Medico-Psychological Association for scientific purposes was held in the Board Room of the Manchester Infirmary on Thursday, April 27th; Dr. Hitchman in the Chair. Some valuable pathological specimens were exhibited, and papers were read by Drs. Mould, Eastwood, and Batty Tuke. The discussion on the paper of Dr. Mould elicited some strongly expressed opinions that the system of indiscriminate shutting up of the insane must, sooner or later, be departed from. Dr. Batty Tuke's paper advocated earnestly the necessity for more accurate *post mortem* examination of the brains of the insane by the microscope. The meeting was well attended by members of the Association, and also by members of the profession resident in Manchester.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

THE Annual Meeting of the Society was held on Friday, April 28th, at 53, Berners Street: Mr. Charles Hawkins, Vice-President, took the chair, in the absence of the President, who was suddenly summoned into the country. After the reading of the Minutes of the last General Meeting, and those of the Courts of Directors held since that meeting, the Chairman commented on the small number of members present, just sufficient to form a quorum, and on the small interest taken in the Society by the profession at large. Out of over four thousand eligible as members, only about four hundred availed themselves of the advantages offered by the Society. From the number of applicants for relief, the Chairman could not think that the small number of subscribers could be attributed to the fact that medical men, as a rule, could provide well for their widows and children, and, consequently, did not see the necessity of becoming members of the Society. The Secretary read a statement of the affairs of the Society for the year 1870. It appeared £2,811 10s. had been distributed in grants, the expenses being £255 10s. There was an increase in grants of £106 10s. over those of the previous year. The receipts of the year amounted to £3,153 3s. 9d.—an increase only of £19 16s. 2d. on those of 1869. The balance of available receipts over expenditure was only about

£11. Seven new members had been elected, nine had died, and five resigned, leaving a total of 429. Three widows and five children had been added to the list of recipients of grants; and six widows and eight children had died or become ineligible. At the end of the year, fifty-five widows and fifty children were on the books of the Society. Mr. W. B. Kesteven, Dr. Robert Fowler, Dr. Graily Hewitt, Dr. T. H. Tuke, Mr. Edward Cock, and Mr. Alfred Willett, were elected in the place of the six senior directors, who retired by rotation. A vote of thanks to the Chairman closed the proceedings.

THE INSTRUMENTS OF TORTURE AT THE CONVENT OF PICPUS.

CONSIDERABLE excitement has been produced in Paris, and some scandal here, by the discovery in the Convent of Picpus of "mattresses furnished with straps and buckles, also two iron corsets, an iron skull-cap, and a species of rack turned by a cog-wheel, evidently intended for bending back the body with force. The Superior explained" (says the writer of this account) "that these were orthopædic instruments—a superficial falsehood. The mattresses and straps struck me as being easily accounted for; I have seen such things used in French midwifery, and in cases of violent delirium; but the rack and its adjuncts are justly objects of grave suspicion, for they imply a use of brutal force which no disease at present known would justify." To persons at all acquainted with the appliances belonging to old-fashioned orthopædy, all this will seem very absurd. The steel corset, the iron skull-cap, and the species of rack turned by a cog-wheel, are beyond doubt instruments for the treatment of torticollis and of spinal curvature. The best known orthopædic mechanist of this country writes to us on this point: "I have not the slightest doubt in the world that the nuns spoke with perfect truth in describing what were supposed to be instruments of torture as orthopædic appliances. To prejudiced eyes, prepared to discover everything horrible, it is easy enough to understand the error into which the observers may have been led; and, although it is by no means complimentary to my special calling, they are not the only people in the world who call orthopædic apparatus instruments of torture. I, as you doubtless know, have for some time attended the convent establishments of London when their inmates needed mechanical aid, and should not be surprised if the appliances which I hold in such esteem should some day be similarly described as those in France. The good people who are raising the present outcry have lighted upon a mare's nest."

THE FUTURE OF THE INTERNATIONAL AID SOCIETY.

WITH the conclusion of peace, the immediate labours of the National Society for Aid to the Sick and Wounded in War have come to an end; and when the Report has been published, there is no doubt that the subscribers to the fund will have reason to be well satisfied with the manner in which the Executive Committee have administered the money intrusted to them for aiding the sick and wounded. An idea has been occasionally started, tending to a belief that this country has been somewhat led away by philanthropic ideas into fostering war; but careful consideration soon dissipates such a belief. The money which was subscribed has been, in the first place, largely spent in this country in purchasing surgical and medical appliances and hospital comforts for the wounded, whilst the total subscription has been but a drop in the ocean as compared with the cost of the war; and whether we take the case of wounded tended and removed from under fire, of wounded searched for and brought in after a battle, of wounded subsequently tended and comforted, of wounded cared for in temporary hospitals, of communications made for them to their relations, of sick and wounded treated in reserve hospitals, of localities teeming with disease disinfected, or of sick and starving prisoners in the enemy's country fed and clad by the Society's agents—it must be admitted that the British Society has done a good and humane work, which both combatants are not slow to acknowledge. We believe that the operations of the National Society for Aid to the Sick and Wounded in War have been fairly and impartially distributed, and that this country will be remembered by both French and German as having only refrained from adhering to the principle of non-

intervention where matters affecting humanity were concerned. There remains, however, another consideration—the disposal of balance remaining in the hands of the Committee. At the meeting of the 4th Aug., which inaugurated the Society under its present name, and from which (although we must not ignore the labours of a few earnest men who worked against hope during three years previously to found such a Society) the formation of the National Society for Aid to the Sick and Wounded in War may be considered to date, resolutions were carried which fixed it as a permanent institution, not for the late war only, but for a future time—“for our own soldiers, should we be at war; for those of other countries, should we not be implicated in war”. The small annual subscription pointed to this; and this, we think, was a wise arrangement. To break up this Society and distribute the remaining balance for ends, however good, other than those for which the public subscribed the money, would not only amount almost to a breach of faith, but would also be an extravagant policy. The experience gained in the organisation of aid to the State in a department which, however well organised, must always require additional assistance in time of war—an experience gathered not only from the shortcomings of a Society like this, with great means at its command, but suddenly improvised for the emergency, but also from the successes and failures of the Prussian, French, Russian, Swiss, Italian, Dutch, and Belgian Societies, under permanent, and therefore widely different, systems, should not be permitted to be lost now that the war is over. Our own military departments are not in such a perfect state of preparation that we can afford to throw aside the means which are here at our disposal. Even in a small matter like the volunteer review at Brighton, we have an instance of the failure of Government arrangements. The War Office refused the offer of the Committee to send an auxiliary ambulance corps. Theoretically, War Office arrangements were perfect; practically, it came to this—one man died, yet the War Office arrangements did not enable them to remove his body from the field for two hours! The volunteers have no medical department. As an army of defence, the volunteers would not come into play till the regulars had been worsted: with the check of the regulars comes naturally the temporary block of their departments. Of what use are the volunteers likely to be on service, with no organised commissariat, no organised medical department? It is, we contend, for them to insist upon having their departments placed on a proper and practical footing. Meantime there are ways in which the National Society for Aid to the Sick and Wounded in War can do good to the country and to the State in time of peace—ways which would be invaluable in time of war. What those means are, we may safely leave to the Committee to discover and work out. The public has intrusted them with over half a million to expend; but a small portion of that sum now remains in their hands: this should be kept as capital, as much of the interest as is found necessary being kept for quietly working in such a manner as to insure us a powerful auxiliary in time of war.

A BOOK WANTED.

WE are asked from time to time by surgeons of volunteer regiments and others where the regulations for the management of military hospitals, as they are established in England in time of peace, are to be obtained, and where also are the instructions for the hospital arrangements which would have to be made in case of the occurrence of war. The rules for these, and for all collateral matters bearing on the subject of army hospital organisation and service, may be found in a book entitled *Regulations for the Duties of Staff and Regimental Medical Officers, and for the Organisation of General, Regimental, and Field Hospitals, etc.*, but commonly spoken of briefly as the *Army Medical Regulations*. This book was originally published by John Parker and Son, London, in 1859, and the regulations embodied in it were based on the recommendations contained in the Report of the Royal Commission appointed to examine into the sanitary state of the army, of which Commission the late Lord Herbert was President. It may be well to mention that this book of hospital regulations has been out of print for several years past.

It was understood three years ago that a revised edition, containing the changes of pre-existing rules, and fresh orders which had been announced from time to time in circulars from the War Office and Army Medical Department, was then about to be published, but it has not yet appeared. The delay in issuing this expected code of instructions is stated to have been due to the fact of no settlement having been come to on some details of army medical administration which have been for a long time past under the consideration of the military authorities; and it is still a matter of uncertainty when the decisions on these points will be so far arrived at as to admit of the new book of army hospital regulations being completed and published. It is hoped that it may appear shortly. In the meantime, the only guides for conducting the military medical services are the code of Regulations of 1859, and the instructions emanating from the Army Medical Department which have been issued since that date in occasional memoranda and circulars.

LONDON UNIVERSITY AND UNIVERSITY COLLEGE.

THE result of the recent elections to examinerships in the medical subjects at the University of London leaves the lists as follows: Dr. Bristowe and Dr. Reynolds in Medicine; Mr. Birkett and Mr. Marshall in Surgery; Mr. Wood and Mr. Ellis in Anatomy; Dr. Michael Foster and Mr. Power in Physiology, Comparative Anatomy, and Zoology; Dr. Barnes and Dr. Graily Hewitt in Obstetric Medicine; Dr. Fraser and Dr. Garrod in Materia Medica and Pharmaceutical Chemistry; Dr. Greenhow and Dr. Stevenson in Forensic Medicine. The presence of four of the professors of one school on the Examining Board at one time is the subject of some remark. It is in various ways an indirect advantage to the students of a school that their teachers should be those who will subsequently set the questions at examinations, and assist in the *viva voce* questioning, if only in standing by when the questions are put. There were other very unexceptional candidates for the posts to which Mr. Marshall and Mr. Ellis were elected last week; and it might have been more opportune, it is suggested, to recognise at another time their claims to the position. The elections to these examinerships are conducted with sound judgment and careful attention to the interests of education: but the defect to which we direct attention is not the less one which deserves consideration.

THE FORTIFICATION OF WINES.

THE questions lately put to the Chancellor of the Exchequer in the House of Commons, touching the excise rules regulating the practice of fortifying wines in bond in this country, add interest to the elaborate report of the French Committee of Public Health to the Minister of Commerce on this ticklish subject. According to the abstract which lies before us, the wines of France are divided into two classes—those of the south and those of the north. The wines of the south of France are clammy, thick, scarcely acid, slightly alcoholic, highly charged with colouring matter and undecomposed sugar, while the poorer sort are unfitted to bear transport in their natural state; the wine produced north of 48 deg. of latitude being generally sour, harsh, and unripe. The first have too much sugar, the latter too little. Both require certain manipulation—the first *coupage* (blending), the second *vinage* (fortifying). Blending has been reduced to so much of a science, that the wines sold retail at the wine-shops in Paris, though composed of many different growths, are so blended to suit the taste of the working classes that scarcely any appreciable difference in the quality can be detected in the wine thus retailed in any part of the capital. *Le coupage* is now recognised as a necessary, legal, and legitimate operation; and in all cases where prosecutions for adulteration have taken place, juries have invariably acquitted where no deleterious drugs have been detected—such, for instance, as litharge, which possesses in a high degree the property of neutralising the acidity of wines, and was formerly much used for that purpose. *Le vinage* is still practised in Greece and the Archipelago, as it used to be in Italy, by adding resin to the wine—a good recipe for spoiling it. It is, however, universally understood to mean the addition of alcohol. There are three methods of operating the *vinage*: the first is called *vinage à la cuve*, which is considered by far the best and most

legitimate—this takes place while the fermentation is going on; the second, which is called *vinage au tonneau*, at any time after the fermentation is complete; and the third by congelation, which, being little practised, is of no commercial importance. To show the necessity of adding spirit in bad seasons, the report contrasts the difference in the quantity of alcohol contained in five different descriptions of choice wines in the years 1845 and 1846—in the former, the average was eight per cent., and in the latter twelve. It calculates the yearly wine produce of France to be 55,000,000 hectolitres, of which only 5,000,000 are fit for exportation unfortified. In summing up the arguments urged for and against the *vinage*, the committee come to the conclusion that moderate alcoholisation, whether in the *cuve* or the *tonneau*, may be practised without danger to the public health with any description of spirit, provided it be chemically pure, inasmuch as, whether produced from wine or roots, such spirits are, when in a perfectly pure state, chemically identical, and, when used with discretion and for the purpose of preserving wine, add to its hygienic properties. In conclusion, the committee says: "Firstly, *le vinage* and *le coupage* (blending) are two legitimate operations of very ancient date; secondly, the addition of alcohol to wine is not detrimental to the health of the consumer, if practised with care and with pure spirit; thirdly, the operation is useful, and often indispensable, for the preservation of a large proportion of our wines."

OPENING OF THE NEW ST. THOMAS'S HOSPITAL.

HER Majesty the Queen has signified her intention of opening the New St. Thomas's Hospital. The programme has not yet been arranged, but the ceremony will take place about the latter end of June.

VACCINO-SYPHILIS.

THE second discussion at the Royal Medical and Chirurgical Society on Mr. Hutchinson's case of vaccino-syphilis left much to be desired in precision and deductive completeness. One of the palpable conclusions is, that a great variety of eruptive affections do occasionally occur as a sequel of vaccination, which have only a very indirect relation to it, but which are apt to be thought suspicious, and even to be hastily judged as syphilitic on altogether insufficient grounds. We have received some purely alarmist and wholly unsatisfactory letters referring to such cases, which their authors must excuse us from publishing. Many of the statements made at the Royal Medical and Chirurgical Society were of the same loose and undesirable character; and, on the whole, this adjourned discussion added nothing to our knowledge and much to our discontent. Mr. Hutchinson's cases are of a character which bear and require investigation. It is the duty of any one who comes across such cases to have them submitted to very searching and skilled investigation; to follow the vaccinifer, to trace the history and ascertain the sequelæ of the vaccinations in all the vaccinated. The cases which Mr. Hutchinson has brought forward will be submitted to further critical examination. This is right, even in such cases as these; and in every case vague statements should be discountenanced, an individual opinion held for nothing, and an accurate investigation instituted. It is a matter in which it would be very easy but very wrong to be frightened by bugbears.

THE COUNCIL OF THE COLLEGE OF SURGEONS OF ENGLAND.

THERE is already some speculation as to the vacancies which will occur by the ordinary lapse of time at the next election of Councillors for the College of Surgeons. There will be four vacancies—Mr. Cock, Mr. Lane, Mr. Le Gros Clark, and Mr. Busk, going out in rotation. Mr. Le Gros Clark and Mr. Busk will offer themselves for re-election; nor is there, we believe, any reasonable doubt that they will be re-elected. Mr. Busk has, indeed, been selected as the *point de mire* of a personal attack; but it is of a very feeble character, and almost refutes itself. Every one who knows anything of the College affairs, knows that Mr. Busk is by men of all parties admitted to be one of the most valuable members of Council who have sat at the Board for many years. Not only as a surgeon and anatomist, but as one of the best known

men of science of the day, and as a link of immediate communication with external scientific bodies and interests, as an admirable man of business, and a thoroughly independent and clear thinker, Mr. Busk enjoys general confidence, and is in a position to render essential services. Of the most important advances which the College has made—the great improvements in its examinations—he has been the steady advocate, and has always been an uncompromising supporter of the separation of scientific from professional examinerships. There are other points in his programme with which we should be less disposed to concur. But all who honestly differ from Mr. Busk, equally with those who concur with him, must feel that it would be a misfortune to silence him merely because he differs from them; and the attempt to prejudice Mr. Busk's re-election deserves to be stigmatised and discouraged as an effort to sacrifice public interests to private animosities. *Apropos* of Mr. Solly, we hear with pleasure that the hope is entertained that the existing improvement in his condition of health will be so far strengthened as to lead to his early return to his duties in the Council.

SMALL-POX AT BRIDGWATER.

SMALL-POX has made its appearance at Bridgwater, having been imported from Liverpool by a woman, who introduced into it a lodging-house near the railway-station. Mr. Axford very properly immediately brought the outbreak under the notice of the Board of Guardians, some of whom wisely proposed that a small-pox hospital should be at once erected; this necessary step, the efficacy of which depends upon prompt action, has, however, been postponed *for a week* by a majority of one, avowedly for the purpose of making the Corporation bear half the expense of £50! One would think that it was done out of consideration to the small-pox, so as to let it start fair; but the Guardians should remember that the epidemic has incubated and is attacking, and that, if they require eight days for the *incubation* of their defences, they will find themselves the losers, as they did both in money and lives during the cholera epidemic of 1848-9. From its position as a seaport, Bridgwater is always more or less liable to invasions of epidemic diseases; and now that her sister ports, with which she is frequently in communication by means of her shipping, are suffering severely from small-pox, we not only wonder at the culpable delay in erecting a temporary hospital, but that one had not already been provided in anticipation of an outbreak.

SCOTLAND.

ACCIDENTAL DEATH BY POISONING OF THE RESIDENT SURGEON, DUNDEE ROYAL INFIRMARY.

A MELANCHOLY occurrence took place on Monday at the Royal Dundee Infirmary. Dr. Bruce, the junior resident surgeon, had been complaining for several days of symptoms of dissection-wound of the finger, which caused him considerable pain. He continued to take small doses of hydrate of chloral until Monday morning, when, it is supposed, he had carried the use of the remedy too far and taken a poisonous dose. Dr. Bruce had been appointed to the Infirmary only three weeks previously.

EDINBURGH.

OUR own correspondent writes:—That "doctors differ", is a well known saying; but the prolonged contest regarding the Edinburgh and District Water Bill, now before the Committee of the House, is showing that consulting engineers can be as contradictory in their statements and opposed in their theories as any *Æsculapius* of us all. The merits and demerits of soft water, the nutritive value or poisonous qualities of water-fleas, have afforded subjects for the medical witnesses to discuss, and have occasioned a good deal of amusement. The expense, however, which has been already incurred, must be enormous.—The summer session has opened, and the classes seem to be very full. We hear that the "little band" of female students has had two additions to

its number; and we hear that the action for libel (*Craig v. Jex Blake*) is expected to come off about the 30th of May. Several well known medical men are to appear in the witness-box.—Dr. Dixon, the House-Physician of the Fever Wards, has made a rapid and complete recovery.—There are still very few cases of small-pox in Edinburgh.

IRELAND.

DR. WILLIAM ROE has been appointed Examiner in Midwifery and Diseases of Women and Children to the Royal College of Surgeons in Ireland.

By a recent Order in Council, the parent and auxiliary asylums in Clonmel have been amalgamated; and Dr. W. D. Garner has been appointed Resident Medical Superintendent.

CONSTANT importations of small-pox from Liverpool are reported at the Irish ports; but, by the vigilance of the Poor-law medical officers, they are isolated, and the disease is prevented from spreading. Two such were reported at the last meeting of the Carlow guardians.

THE ROYAL COLLEGE OF SURGEONS OF IRELAND.

THE President of the Irish College of Surgeons, Dr. Albert Walsh, gave last week the customary annual banquets to the Examiners and Professors, and to the Council of the College. The College Club dinner, which includes all who either do or have held office in the College, took place on Saturday, and was very largely attended. On the first Monday in June, the annual dinner of the Irish Medical Association will be held in the College.

APOTHECARIES' HALL OF IRELAND.

THE Council's Annual Prize in Pharmaceutical Chemistry, open to apprentices, the subject for which this year was *The British Pharmacopæia*, was awarded on the 5th instant to Mr. Albert E. Swayne. At the same time, a Second Rank Honour Certificate was given to Mr. Herbert Alexander Auchinleck for distinguished answering at the examination.

SPECIAL CORRESPONDENCE.

THE TWO SIEGES OF PARIS.

[FROM OUR OWN CORRESPONDENT.]

[UNDER date May 7th, we have the following from our correspondent in Paris. It serves to explain the cessation of communications during a very interesting period, which has been a source of regret to ourselves and no doubt to our readers. *Facta non verba* is, however, under such circumstances, a principle which has so much to recommend it to our profession, that Dr. Rose Cormack will readily stand excused for having postponed the duties of the correspondent to those of the physician. If he had done less he would have written more, is a very noble excuse. Placed under conditions which appealed strongly to his professional zeal and humanity, he has responded devotedly to the call, and throughout the two sieges of Paris has done something more than his duty. This slight tribute is due at our hands to him as an Englishman, as an old and esteemed member of the Association, and as a former editor of this JOURNAL.]

A courier starts in a few hours for London. In reply to a letter I had from you a few days after the capitulation of Paris, I promised to resume—at least in some sort of a fashion—my letters to the BRITISH MEDICAL JOURNAL. It was my wish to do so, and to give some retrospective glimpses at the sanitary and medico-chirurgical history of the siege, from which we were then emerging; but circumstances have prevented me from having any of that repose or time so necessary to throw into a form at once succinct and readable a five months' history of personal medico-chirurgical life, teeming with incidents of considerable social and scientific value. Whilst thinking how I could best fulfil my promise to you, I became quite suddenly weak and ill—over-

whelmed, in fact, with various symptoms of scurvy, such as fits of breathlessness, spongy gums, and suppurating toes and fingers. I lost four nails from the toes of my left foot, and one nail from my right hand. Well, by lemon-juice and citrate of iron, I got well, and by the time of the last revolution was nearly myself again: my ambulance duties were again a pleasure, and it was regretfully that I looked to the 1st April, the day on which the ambulance was to be closed, and the few patients who might be then remaining to be distributed for the completion of their convalescence. At this time I had sketched a plan of some six or eight letters to you.

All at once the aspect of affairs, public and personal, became changed. Mr. Wallace resolved to keep his ambulance open for the wounded civilians and insurgents, victims of the present civil war; and, as Drs. Shrimpton and Herbert were both in London, the entire medical and surgical duty devolved on me, assisted by my son, a student of medicine. The work has been very full and very anxious occupation, so that since my health was restored till this hour I have never had breathing time. Considering that seven of my children are absent—all in different places—you can understand that I have had letter-writing enough, without trying to do your JOURNAL requirements. I hope you will accept my explanation for what it really is—a bare statement of facts.

I have the whole medico-chirurgical duty at the ambulance, 16, rue d'Aguesseau, and have now about forty beds. For five weeks (till a few days ago) I had English hospital medical duty also; but since Dr. Herbert's return I have had only the wounded to attend to.

Besides the fighting men, I get civilians accidentally wounded. I have had five such, and four remain under treatment; one is a woman, whose leg I amputated below the knee three weeks ago to-morrow, and another is her sister (injured by the same shell), who is recovering from a broken arm and other injuries. Along with these two I received the husband of the first, also seriously wounded: he left convalescent some days ago, and is now an out-patient. The amputation case looked a very unpromising one for operation, but still to operate was obligatory. This poor woman had not only her leg utterly smashed, but she had seventeen other lacerated wounds, two of which, on the thigh of the limb operated on, were formidable in themselves. Notwithstanding these unfavourable conditions, recovery has gone on, I may almost say, without a check, and now I look on the patient as safe. She has had her windows open night and day, and has had a room to herself, with admirable nursing. I have done the dressings (with my son's aid) with my own hands; and this one case, I assure you, has been a daily heavy item in my time-bill. The other two civilian cases are less terrible than that which I have now sketched, but they are bad enough. One is a woman who was struck by an obus at eight o'clock the night before last at the Champs Elysées, corner of the rue de Cirque, *within five minutes of my ambulance!* This shell did not explode, and had evidently lost much of its force, for the patient only has her leg broken (tibia and fibula) transversely, and a moderate laceration of the soft parts. My fourth civilian is an Englishman, who got a Chassepôt ball through his thigh when looking at the fighting (foolish curiosity) at the Porte des Ternes. He was within the gate, and the shot was one of a very few that came over the rampart on that occasion.

The wounded insurgents are my chief charge, however. I have a most interesting service. There is no hospital in Paris where the ventilation and cleanliness of the wards and all other hygienic conditions are so well attended to. This is owing to my having entire command of all that is reasonable or possible. Mr. Wallace is at the cost of everything, and the only order he gives is—*Do your best for the patients.* With things on such a footing, no amount of labour that is physically possible do I feel to be too severe: it is all a pleasure. Three weeks ago yesterday, I excised the head of the humerus (in an insurgent), and, after removing a portion of the smashed shaft, resected the bone. The injury was committed by a Chassepôt ball, which did no injury worth noting to the soft parts, so that the case was very favourable for operating, though fully two inches of the man's humerus are in my cabinet. He goes on to a wish.

From what I have said, you will see that I am brim-full of business. Were the ambulance not at my very door I could not do its work and my other work, which is also pretty stiff sometimes. Thank God, my health is now as good as it can be.

Yours, very sincerely,

JOHN ROSE CORMACK.

CHESTERFIELD HOSPITAL AND DISPENSARY.—The account read at the annual meeting showed a balance of £392 : 13 : 2 in favour of the institution. The endowment fund amounted to £5,385, which had been increased by the receipt of two legacies of £100 and one of £50. His Grace the Duke of Devonshire has been appointed President of the Hospital for the ensuing year.

ASSOCIATION INTELLIGENCE.

GLOUCESTERSHIRE BRANCH.

THE next spring meeting of the above Branch will be held on Tuesday, May 16th, at 3.30 P.M., in the Cheltenham General Hospital.

At 6 P.M. a dinner will be provided at the Plough Hotel. Price 4s. Members who have not paid their subscriptions, are reminded that they were due on New-Year's Day. Annual subscription to the Branch, 4s.; to the Association, 21s.: payable to the Honorary Secretary.

ALFRED FLEISCHMANN, *Honorary Secretary*.
Cheltenham, May 10th, 1871.

METROPOLITAN COUNTIES BRANCH: ORDINARY MEETING.

AN ordinary meeting of this Branch will be held at the rooms of the Medical Society of London, 32A, George Street, Hanover Square, on Wednesday, May 24th, at 8 P.M.; T. HECKSTALL SMITH, Esq., F.R.C.S., President, in the Chair.

Dr. A. P. STEWART will read a paper on Sanitary Organisation, as viewed by the Joint Committee of the British Medical and Social Science Associations, the Royal Commission, and the Government.

A. P. STEWART, M.D. } *Honorary Secretaries*.
ALEXANDER HENRY, M.D. }
London, May 10th, 1871.

BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of the session will be held at the York House, Bath, on Thursday evening, May 25th, at 7 P.M.; CHARLES BLEECK, Esq., President, in the Chair.

R. S. FOWLER, } *Honorary Secretaries*.
E. C. BOARD, }
6, Belmont, Bath, May 3rd, 1871.

EAST YORK AND NORTH LINCOLN BRANCH.

THE annual meeting of the above Branch will be held on May 31st, 1871, at the Hull Infirmary. Gentlemen wishing to read papers will kindly send the titles to

ROBERT H. B. NICHOLSON, *Honorary Secretary*.
21, Albion Street, Hull.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE annual general meeting of the above Branch will be held at the Great Western Hotel, Birmingham, on Friday, June 16th, at 3 P.M.; when an address will be delivered by the President, Mr. OLIVER PEMBERTON.

Members have the privilege of introducing their friends, being qualified members of the medical profession.

The members and their friends will dine together afterwards, at five o'clock punctually.

Gentlemen intending to be present at the dinner, will be good enough to communicate as early as possible with the Honorary Secretary.

Dinner tickets, inclusive of waiters and dessert, 7s. 6d.

Members whose subscriptions are not yet paid, are earnestly requested to pay them at or before the annual meeting.

T. H. BARTLEET, *Honorary Secretary*.
8, Old Square, Birmingham, May 1871.

REPORT OF SPECIAL MEETING OF COMMITTEE OF COUNCIL:

Held in London on the 3rd and 4th May, 1871.

PRESENT:—W. D. Husband, Esq., F.R.C.S., in the Chair; Dr. Charlton, Dr. Falconer, Dr. Bryan, Dr. Chadwick, Mr. Clayton, Mr. Reginald Harrison, Mr. Hodgson, Mr. Nicholson, Dr. Shettle, Dr. Sibson, F.R.S., Mr. Heckstall Smith, Mr. Southam, Dr. Stewart, Dr. Edward Waters, Mr. Wheelhouse, Mr. Wood, Dr. Wilkinson, and Mr. Williams, General Secretary.

1. That resolution marked 1 in the proceedings of the last meeting of Committee of Council be rescinded, and the following be substituted.

"That the JOURNAL be not sent to any candidate for membership of the Association until he has been formally proposed; and that he shall not be entitled to any other privilege of membership until duly elected by

the Committee of Council, or by the Council of a Branch of the Association."

2. After receiving full and detailed information from the officers of the Association, the printer of the JOURNAL, and the clerk at the JOURNAL office, as to the mode in which the business of the Association is at present carried on, and the work at the JOURNAL office conducted, and making a careful investigation of the results thereof, it was unanimously resolved that changes were required both in the mode of working the Association and the office; and that a Subcommittee, consisting of the President of the Association, the President of Council, the Treasurer, Mr. Heckstall Smith, and Mr. Hodgson, be appointed to consider and report to the next meeting on the alterations in the laws required to effect such changes, and to submit a paragraph for the annual report recommending such alterations to the members of the Association at the general meeting at Plymouth.

3. That a Committee of Branch Secretaries, consisting of Mr. Bartleet, Dr. Bryan, Mr. Reginald Harrison, Dr. Henry, Mr. Hodgson, Mr. Nicholson, with the General Secretary, be appointed to draw up suggestions for the duties of Branch Secretaries; and especially to consider whether members of Branches shall be placed exclusively under the management of their respective secretaries, or, as they are now, partly under the management of the Branch Secretaries and partly under that of the General Secretary.

The first meeting to be held at the Queen's Hotel, Birmingham, on Tuesday, the 6th June, at 10 o'clock.

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary*.

13, Newhall Street, Birmingham, May 10th, 1871.

[The General Secretary will be very glad to receive suggestions from any of the Branch Secretaries who are not members of the Subcommittee.]

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

THE third meeting of the fourteenth session was held at Dartford on May 2nd, JOHN M. BURTON, Esq., F.R.C.S., President of the Branch, in the chair.

An apology was tendered and accepted for the omission of the Gravesend meeting in March.

Secretary.—Dr. F. J. Brown was elected Honorary Secretary for the ensuing session.

The next Meeting was appointed to be held at Rochester on September 26th, and Dr. Burns was chosen Chairman.

A Vote of Condolence was accorded to Mr. Grantham, in respect of his son, lately deceased.

New Members.—Mr. John Henry Lyddon, of Rochester; Mr. Robert Ross Brown, of Strood, Rochester; and Mr. Frederick H. Edmonds, of St. Bartholomew's Hospital at Rochester, were elected.

Communications.—The following were read. 1. A Case of Encephaloid Tumour of the Abdomen in a Child. By E. Moore, Esq.—2. A Case of Fatty Degeneration of the Heart and Softening of the Brain. By N. W. Barrington, M.D.—3. A Case of Pyæmia, with Purpura, Splenic Abscess, and Pneumonia. By J. J. D. Burns, M.D.—4. A Case of Embolism followed by double Phlegmasia Dolens and Puerperal Mania: Recovery. By J. Armstrong, M.D.—5. Exhibition of a Fat Boy, aged 6 years, with a girth of four feet, and weighing ten stone. This boy had a sister, now dead, equally fat. By E. Moore, Esq.—6. Exhibition of a case of Spina Bifida in an Infant. By E. Moore, Esq.—7. Exhibition of a Case of Double Hare-lip in an infant. By R. H. Hunter, Esq.

Dinner.—The members and visitors dined at the Bull Hotel.

CAMBRIDGE AND HUNTINGDON BRANCH: MEETING.

AN ordinary meeting of the above Branch was held at the County Hospital, Huntingdon, on Wednesday, May 3rd; MICHAEL FOSTER, Esq., in the Chair. There were twenty-one members of the Branch present, and several visitors, amongst whom was Bishop McDougall, Vicar of Godmanchester, formerly a member of the medical profession.

New Members.—The following gentlemen were unanimously elected members of the Branch: B. Anningson, M.B., Cambridge; R. S. Ellis, Esq., Willingham.

Representatives in the General Council.—The following gentlemen were elected representatives of the Branch in the General Council of the Association: Michael Foster, Esq.; P. W. Latham, M.D.; W. R. Grove, M.D.

Mr. J. Watson, Hemingford Grey, was elected by the Branch to

serve on the Parliamentary Committee of the British Medical Association.

Vote of Thanks to Dr. Latham.—It was proposed by Dr. GREEN, seconded by Mr. FEW, and carried unanimously, "That the cordial thanks of the meeting be given to Dr. Latham, the late Honorary Secretary of the Branch, for his valuable services during a period of six years."

Confidence in Editor of Journal.—It was proposed by Dr. LATHAM, seconded by Dr. PALEY, and carried unanimously, "That this meeting expresses its satisfaction with the manner in which the JOURNAL is conducted."

Next Meeting.—It was resolved, "That the next meeting be held at Ely; and that R. Muriel, Esq., be President-elect."

Communications.—The following communications were then read:—1. On the Prognostic Value of Hæmoptysis. By J. B. Bradbury, M.D., Cambridge. The paper was discussed by the President, Mr. Watson, Dr. Latham, Mr. Hodson, Dr. Michael Foster, Dr. Humphry, Dr. Paley, and Mr. Hemming.—2. On the Importance of the Use of the Thermometer in the Diagnosis and Treatment of Disease, especially Typhoid Fever. By P. W. Latham, M.D. The discussion on this paper was limited, for want of time.—3. On Fracture of the Skull: with Case. By J. J. Evans, Esq., St. Neots. The case was discussed by Dr. Pinchard.—4. On Loose Cartilages in the Knee and their Treatment. By G. M. Humphry, M.D., F.R.S. Dr. Walker, the President, and Mr. Oldman, made some remarks.—The President read a letter from Mr. Bridger of Cottenham, containing practical remarks as to the best method of storing Vaccine Lymph.—Dr. Latham showed a new form of Urinary Cabinet.

Dinner.—After the meeting, the members of the Branch and their friends dined together at the George Hotel; the President presiding, and the Honorary Secretary acting as Vice-President.

CORRESPONDENCE.

THE SANITARY CONDITION OF OXFORD.

SIR,—My attention has been called to some remarks under this head in the BRITISH MEDICAL JOURNAL of April 22nd, referring to a report lately made by Dr. Buchanan, one of the medical advisers in the Medical Department of the Privy Council in London. As I am a member of the Committee to whom this report is referred by the Local Board, I shall be glad to receive, through your columns, or otherwise, any evidence bearing on the facts assumed by Dr. Buchanan in his report; the facts as stated by him not being universally admitted in this city. I am, etc., E. L. HUSSEY.

Oxford, May 10th, 1871.

DEATHS FROM CHLOROFORM.

SIR,—In your article of last week entitled "Deaths from Chloroform", this anæsthetic is credited with causing one death in every two thousand five hundred cases in which it is used. Can you inform the profession on what basis this statement rests? Is the rate of mortality deduced from the statistics of hospital practice only? or from the innumerable instances of its administration in midwifery and general medical and surgical practice? Sir James Simpson is said to have stated that he had personally seen it administered in over *ten thousand* cases without one fatal result. In instrumental cases of labour, this agent is of daily and almost hourly use. Alone, often away from all professional aid, without proper apparatus for giving it or for counteracting its effects, surrounded by nervous and frightened women, into whose hands he has frequently to entrust the care of the patient and the continued application of the chloroform, the surgeon is called on to administer this most uncertain agent; and yet I know of no recorded case of a fatal issue under these most disadvantageous circumstances.

Though no death has occurred in the operating-theatre of the Liverpool Workhouse Hospital, where chloroform has been given under my own personal observation some five hundred times, on three occasions there were indications of imminent danger—averted in two of the cases by promptly turning the patient over in the semiprone position, pulling out the tongue, and dashing cold water on the chest and face. In the third case, the state of suspended animation was so prolonged, and the difficulty of recovery so great, that I think it worth while to record the case, as showing the advantage of not too soon relaxing our efforts in aid of resuscitation.

E. B., aged 19, whose leg had to be reamputated above the knee, was on Wednesday, April 26th, brought up for operation. After examina-

tion and the administration of a little brandy, chloroform was given to him for the third time in his life, on one of Skinner's inhalers. Profuse vomiting setting in just as the chloroform was beginning to have effect, its administration had to be suspended. Shortly after its re-application, and just in the middle of the amputation, the patient was observed to suddenly cease breathing. He was at once turned over in the semiprone position; his teeth, which were tightly clenched, were forced open with the handle of a pair of bone-nippers; his tongue was pulled out with an artery-forceps; and artificial respiration, after Silvester's method, was actively commenced. The windows were all thrown open, and cold water was freely dashed on the face and chest. The patient remaining, in spite of all treatment, for more than ten minutes without any effort at respiration, pulseless, and with a blue livid surface, a strong galvanic battery was now applied—one pole at the nape of the neck, and the other at the diaphragm. Very little effect was produced by the continuous application of the rods; but, when the one at the neck was alternately applied and withdrawn, convulsive movements of the limbs and spasmodic gaspings occurred. The gasping gradually became prolonged, and ultimately changed into normal breathing; and the patient returned to life and consciousness twenty minutes from the first sudden suspension of respiration. I am, etc.,

Liverpool, May 1st, 1871.

J. H. BARNES.

* * * The estimate referred to is that of Dr. B. W. Richardson, in his paper read at the meeting of the British Medical Association at Leeds, August 1869.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN.

THE CASE OF MR. DEFRIES.

SIR,—Will you kindly allow me to state that I shall be happy to receive subscriptions from local practitioners on behalf of Mr. Defries, whose case was mentioned at the last meeting of the Society of Union Medical Officers. I am, etc., WM. WOODWARD, M.D., Local Secretary for Worcestershire.

VACANCIES.

AUCHTERARDER, Perthshire—Parochial Medical Officer.
BRACADALE, Skye—Medical Officer and Public Vaccinator.
DOLGELLEY UNION, Merionethshire—Medical Officer for the Dolgelley District.
MACCLESFIELD UNION, Cheshire—Medical Officer for the Sutton and Rainow District.
NARBERTH UNION, Pembrokeshire—Medical Officer for District No. 3.
NORTHLEACH UNION, Gloucestershire—Medical Officer for the First Division of District No. 3.
THORNBURY UNION, Gloucestershire—Medical Officer and Public Vaccinator for the Almondsbury District.
TRINITY, Gask, Perthshire—Parochial Medical Officer.
UNST, Shetland—Parochial Medical Officer.
UPPER STRATHEARN COMBINATION POOR-HOUSE—Medical Officer.
WELLINGTON UNION, Somersetshire—Medical Officer for the Workhouse and District No. 1.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

POOR-LAW SALARIES.

WE observe that Captain Dawson, of the Tipperary Union, thinks it a sufficient answer to complaints of insufficient salary of Poor-law medical officers, to ask, "Why do they take the offices? They need not, unless they wish." We may suggest, however, that there are many cases in which poverty rather than will consents. It is not the duty nor the wisest policy of public administrators to avail themselves of that kind of pressure. Services given under such contracts are not likely to be the most efficient; or, if so, they are unfairly obtained. It is the business of the State or of those who represent it, whether in central or local government, to give a fair wage and to demand an efficient service, to apportion the remuneration to the labour, and not to put up the offices in their bestowal at a Dutch auction.

MEDICAL OFFICERS' SUBSTITUTES.

THE Waterford guardians have passed the following resolution: "That we recommend the Board to raise the salaries of each of the seven medical officers of this Union from £100 to £120 *per annum*; and that, in future, one-half of the expense of substitutes, when such are required, shall be deducted from the said salaries of £120." It was decided to ask the Commissioners if this change would meet with their approval.

CLANEMORRIS DISPENSARY.

OCCASIONALLY the Poor-law Commissioners of Ireland are seized with fits of unbecoming parsimony. They have recently objected to the proposition of the Clanemorris guardians to raise the salary of their medical officer to the noble pittance of £100 a year. The guardians, however, have the best means of knowing that their medical officer cannot be expected to subsist on less in a small neighbourhood, where there is so little private practice; so they have made representations in reply to the Commissioners, which will, we presume, be effectual.

UNION RATING IN IRELAND.

MR. POWER, Chief Commissioner of Poor Laws in Ireland, has expressed a very decided opinion in favour of union instead of electoral division rating; and, as there is no one more thoroughly conversant with the subject, or who takes a more enlightened view of all matters connected with the administration of the Poor Laws in Ireland, than he, we may expect that the system of union rating will be shortly introduced there. Although at first sight it may appear to have little bearing on the Poor-law medical officers, yet, on further consideration, it is evident that it will affect them very materially, both as to the sanitary condition of their districts and the pecuniary advantages to themselves. With regard to the sanitary condition, Mr. Power has pointed out that, owing to electoral division rating, "there has been an unwillingness to build labourers' cottages, lest the occupants should become chargeable to the rates; and that great complaints have been now made of the distance which labourers have to walk in order to reach their work. In consequence of the scarcity of cottages, they have had to crowd into the towns, where their morals have rapidly deteriorated, and their health too." There is no question that a walk of several miles to his labour, and a similar walk back after his hard day's work, must have a very depressing effect on the labourer. The electoral system makes it the direct interest of every landlord to drive the poor from his estate, and to throw difficulties in the way of building cottages even for such labourers as his land requires. In this way the country towns have suffered. Overcrowding, with all its sanitary and social evils, has been the natural result; and the diseases so arising have been thus disseminated all over the neighbouring districts. In this way it is clear that the adoption of union rating will be an advantage in a sanitary point of view, there being thus no direct pecuniary advantage in the landlord keeping the labourer and his family at a distance from the scene of their labours. The effects of union rating on the Poor-law medical officers in a pecuniary point of view may be simply stated thus. In all cases of increase of salary or superannuation, the funds are derived from the rates of the electoral divisions forming the dispensary district; and in some cases, more especially of superannuation, where the whole sum is derived from the rates, it may possibly press heavily on a particular electoral division, whilst it would be hardly felt if spread over the whole union. This has, to our own knowledge, militated against the granting of superannuation to most deserving officers; for, as we have frequently pointed out, superannuation is still but permissive. Another advantage arises from union rating: it enlarges the area whence payment is derived, and in this way is a step towards the payment by the State of the entire of the medical salaries, which is one of the fundamental objects of the Poor-law Medical Officers' Associations of both England and Ireland. From the evidence before us on this important question, we think it probable that union rating will be adopted in Ireland; and, if the Poor-law medical officers have their own interests at heart, they will give it a helping hand.

WORKHOUSE OFFICIALS' ASSOCIATION, IRELAND.

FOLLOWING the example of the Poor-law medical officers and the clerks of the various unions, the workhouse officials in Ireland have formed themselves into an Association for the purpose of rectifying their grievances. The principal one which they have as yet brought forward is, that in England, in case of superannuation, the workhouse officials not only receive two-thirds of their salaries, but of the value of the various other emoluments connected with their office as well, such as lodging, rations, fuel, etc.; while in Ireland they only receive two-thirds of the actual salary, no account being taken of the perquisites. This is a real grievance, and in many instances reduces the superannuation allowance from two-thirds to one-third of the value of the appointment. This will apply to the resident medical officers of dispensaries and workhouses. We would, therefore, recommend them to look to it. In the case of dispensary medical officers, we do not see any reason why they should not receive two-thirds of the income which they

derive from vaccination and registration, in the consideration of their claims for superannuation, more especially as both these duties are imperative upon them in connexion with their several dispensaries. The value might be readily arrived at by taking the average of the three preceding years, and an allowance based on these duties would prove to be an excellent stimulant to increased energy both in registration and vaccination.

VACANCIES.

ABBEVLEIX UNION, Queen's County—Medical Officer and Public Vaccinator for the Durrow Dispensary District.
BOYLE UNION—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Gurteen Dispensary District.
CROOM UNION, co. Limerick—Medical Officer for the Workhouse; Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Croom Dispensary District.
KILRUSH UNION, co. Clare—Medical Officer for the Kilrush Dispensary District, and the Workhouse and Fever Hospital.
WATERFORD UNION—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Kilmeaden Dispensary District.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Court of Examiners, on May 9th; and, when eligible, will be admitted to the pass examination.

Messrs. John Hammond Morgan, Alexander Russell Dodd, Charles Sethward de Lacy Lacy, Cyril Baldwin Harcourt, John Goodchild, and Robert Walker (Students of St. George's Hospital); George William Homan, John Padman, and Thomas Francis Ken Underwood (King's College); Arthur Henry Downes, John Madder Bromley, and Comeley Austin (University College); William Cooper Keates, Hugh Robertson, and Thomas Terence O'Brien (St. Thomas's); Dennis Bury and Robert Davis (Newcastle School); George Etheridge and Mortimer Balding, B.A. Cantab. (Middlesex); Charles Seymour and Alfred Lewis Galabin (Guy's); Francis Priddle and John Cooke (London); Edward Tootell and Sydney Morris (St. Bartholomew's); William Hugh Beresford (St. Mary's); Charles William Buck (Manchester School); Frederick Arthur Farr (Charing Cross); and Arthur Stopford Underhill (Birmingham School).

The following gentlemen passed on May 10th.

Messrs. Vincent Dormer Harris, Charles Firth, William Hugman, Frederick William Barron, John Alexander Miller, Henry Bird Vincent, and Henry Haldane Stokes (St. Bartholomew's); De Vere Alexander Nesbitt Irwin, Charles Edward Watson, William Aldersey Williams and William George Irving (King's College); John Lloyd Ellis, Henry George Dixon, Walter Benjamin Woodward, Thomas Hamilton Moorhead, and Joseph Francis Porter (Dublin School); Montagu Lubbock, Walter Hamilton Acland Jacobson, and Arthur Arnold Beardsley (Guy's); Clement Cuthbert Walter and William Eyre Blennerhassett Athill (St. George's); George Wallis Glenny and George Morgan (London); Richard Hunt and Watson Tomlinson (Leeds School); George Seymour Dixon (Newcastle School); Francis James Wright (St. Thomas's); Edmond Stevenson (Edinburgh School); William Steele Hughes (Westminster); Thomas Shaw (Manchester School); Henry Thorold Wood (University College); and Thomas Frederic Young (Liverpool School).

Nine were referred, making a total of 21 out of the 82 examined.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their final examinations, and were admitted Licentiates of the College, during the April sittings of the examiners.

Benjamin Tydd Heuston, Tipperary; Matthew William Gairdner, Cricff; John Morrow, County Derry.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH: DOUBLE QUALIFICATION.—The following gentlemen passed their first professional examinations during the May sittings of the examiners.

William Henry Browne, Coventry; Thomas F. Pickering, Nantwich; John Cochran, Edinburgh; Arnold Clarke, Cavan; Thomas Power, Cork; John Kane, Adelaide; Robert A. Rutherford, Manorhamilton; Henry John Ryder, Cork; Richard A. H. Hartford, Templemore.

The following gentlemen passed their final examinations, and were admitted L.R.C.P. Edinburgh and L.R.C.S. Edinburgh.

Charles Alfred Ernest Sheaf, Oswestry, Salop; James Joseph Coleman, Galway; John Woodrow Watson, Terry; Tom Heigham, Manchester; Charles Solomon, Hull; Robert Stewart, Perthshire; John Wilson, Essex; William Henry Barr, Cheshire; David Shaw, County Down; David Watkins O'Connor, County Cork; Daniel Francis Buckley, Cork; Edward Austin Fox, Lancashire; Jeremiah O'Donovan, Cork; Thomas Griffin, County Galway; Michael John Fox, Lancashire.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 4th, 1871.

Allwood, John Philip, Stafford
Cockerton, Henry Herbert, Islington
Hill, Alfred, Leeds
Rope, Henry John, Wickham Market
Scale, George John, Merthyr Tydvil
Wade, Arthur, Boscastle, Cornwall

The following gentlemen also on the same day passed their first professional examination.

Burton, Edward Theodore, Ledwich, Dublin
Sarjant, Josiah John, London Hospital

APOTHECARIES' HALL, DUBLIN.—At the recent examinations, the following gentlemen passed in medicine and surgery, and received the licence to practise.

Barr, William Henry
Barry, Robert
O'Shaughnessy, James
Wyse, George Hamilton

At the preliminary examination in Arts, held on April 21st, the following gentlemen received certificates entitling them to commence their medical studies.

Browne, George Henry
Daly, Peter
Daly, Thomas
Faris, John Johnston
Good, Charles
Hamilton, John Beamish
Hoops, Samuel Evans
Johnston, David Todd
Kennedy, William
M'Kenna, Francis
Naish, Redmond
Price, John Griffith
Wetherman, John

MEDICAL VACANCIES.

THE following vacancies are announced:—

BALLACOLLA, DURROW, and CULLOHILL, Queen's County—Medical Attendant to the Royal Irish Constabulary.
CHELTENHAM GENERAL HOSPITAL and DISPENSARY—Resident Surgeon to the Branch Dispensary.
CITY OF LONDON LYING-IN HOSPITAL, City Road—Surgeon.
CUMBERLAND INFIRMARY, Carlisle—House-Surgeon.
DREADNOUGHT INFIRMARY, Greenwich—Visiting Physician.
DURROW, Queen's County—Certifying Factory Surgeon.
EAST RIDING OF YORKSHIRE LUNATIC ASYLUM, Beverley—Medical Superintendent.
HUDDERSFIELD INFIRMARY—Assistant House-Surgeon.
LITTLEMORE PAUPER LUNATIC ASYLUM, near Oxford—Resident Assistant Medical Officer.
MACCLESFIELD DISPENSARY—House-Surgeon.
ROYAL ASYLUM OF ST. ANNE'S SOCIETY—Medical Officer.
ROYAL KENT DISPENSARY, Greenwich—Resident Medical Officer.
ST. BARTHOLOMEW'S HOSPITAL—Assistant-Surgeon.
ST. MARY'S HOSPITAL, Paddington—Physician-Accoucheur.
ST. THOMAS'S HOSPITAL—Physician; Assistant-Physician; Surgeon; two Assistant-Surgeons.
SOUTH STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Physician.
SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds—Physician.
WEST HAM, STRATFORD, and SOUTH ESSEX DISPENSARY—House-Surgeon and Dispenser.
WORCESTER COUNTY and CITY LUNATIC ASYLUM—Assistant Medical Officer.
WORCESTERSHIRE—Analyst for.

[For Poor-law Vacancies see Poor-law Department.]

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

GOODSALL, D. H., Esq., elected Honorary Assistant Surgeon to St. Mark's Hospital for Fistula, etc.
RAVENHILL, E. B., Esq., appointed House-Surgeon to the South Staffordshire General Hospital, Wolverhampton, in the room of H. L. Snow, M.B., resigned.
ROSS, J. A., M.D., appointed Medical Officer to the Newry Hospital, *vice* John Morrison, M.D., resigned.
STRANGE, Arthur, M.D., appointed Senior Assistant Medical Officer to the Female Department of the Middlesex County Asylum, Colney Hatch.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

ADAMS.—On May 8th, at St. James' Road, Croydon, the wife of *T. Rutherford Adams, M.D., of a daughter.

DEATHS.

*COLEMAN, Edward Hayling, Esq., Honorary Consulting Surgeon of the South Staffordshire Hospital, at Wolverhampton, aged 76, on April 26th.
CROLY, William Johnson, L.R.C.P.Ed., at Durrow, Queen's County, aged 30, on May 4th.
EVANS, Lewis, Esq., Surgeon, at Dolgelley, Merionethshire, aged 91, on April 29th.
*FIRTH, John, Esq., Surgeon, at Macclesfield, on May 6th.

MEATH HOSPITAL, DUBLIN.—On May 3rd, the Medical and Surgical Prizes awarded at the close of the Winter Clinical Session, were distributed to the successful candidates by Drs. Stokes and G. H. Porter. Senior Medical Prize, Mr. Jacob O'Connor; Junior Medical Prize, Mr. David Kennedy; Senior Surgical First Prize, Mr. William R. Murphy; Second Prize, Mr. Cecil Bushe; Junior Surgical First Prize, Mr. Marcus Given; Second Prize, Dr. Andrew J. Brady; Martin Prizes (Surgical), Mr. Hayman Thornhill; (Medical) Mr. Wm. R. Murphy; (Junior Medical) Mr. G. B. Cooksey. Dr. Stokes, in addressing a few words of kindly encouragement to the successful com-

petitors for the prizes, and to the class generally, expressed his regret that, owing to a protracted illness, one of the most talented of the students, Mr. Moriarty, had been disqualified for entering for the "Martin" Medical Prize. The cases which had been reported by that gentleman were of a very high order of merit. The Martin Prizes have recently been founded by Dr. Martin, of Portland, and are given for the best reports of six surgical or medical cases treated in the wards of the Meath Hospital during the preceding Winter Session.

OPERATION DAYS AT THE HOSPITALS.

MONDAYMetropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.
TUESDAYGuy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.
WEDNESDAYSt. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.
THURSDAYSt. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.
FRIDAYWestminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic Hospital, 2 P.M.
SATURDAYSt. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Pathological Society of London, 8 P.M. Report of Committee on Lardaceous Disease. The following specimens will be exhibited:—Mr. Gay, Myxoma; Mr. Sydney Jones, Parts removed in Excision of the Knee-joint; Dr. Bristowe, Malignant Disease of the Esophagus; Mr. W. Adams, Fibroid Tumour of Palate; Mr. Maunder, Axillary Aneurism; Mr. Nunn, Warts from a case of Epithelioma; Dr. Risdon Bennett, Intra-thoracic Growth; Dr. Crisp, Illustrations of Diseases of the Eye in the Lower Animals; Dr. Payne, Villous Cancer; Dr. Payne, Hodgkin's Disease combined with Acute Tuberculosis; Dr. Andrew, Malignant Disease of Colon and Stomach, with Fistulous Communication between the two; Dr. Cruicknell, Malignant Disease of the Gall-bladder and Hepatic Duct.
THURSDAY.—Harveian Society of London, 8 P.M. Clinical Communications: Dr. E. Symes Thompson, "A Case of Chronic Ulceration of Stomach, with Perforation."—Chemical Society.—Royal Society.
SATURDAY.—Association of Medical Officers of Health, 7.30 P.M.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with *halfpenny* stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

ERRATUM.—In note of the week on the proceedings of the meeting of the Clinical Society, p. 483, column 2, line 12 from the foot, for "extinct insect", read extinct insect. The same misprint occurs in the detailed report of the Society, p. 489, column 1, line 3 from the foot.

MEDICUS (Barmouth).—The guardians have a discretion in reference to medical orders for relief. In refusing to comply with such orders, the relieving officer exercises a very serious responsibility.

X. (Aberdeen).—Day-nurseries, such as that about to be established in Aberdeen, have, we believe, not succeeded in London so well as was anticipated by their promoters.

MR. HAWARD (London).—Dr. Squibb on Anæsthetics, reprinted from the *New York Journal of Medicine*; Dr. Richardson's paper read at the Leeds meeting of the Association, August 1870.

THE CONTAGIOUS DISEASES ACTS.

WE are sorry to seem to break faith with Dr. Bell Taylor, from whom we had incautiously promised to insert a further communication without seeing it. On reading his long letter, we find it to consist of a repetition, in detail, of the figures of which we recently exposed the fallacy, with an intimation that he cannot accept the figures of Mr. James Lane, Mr. Berkeley Hill, Dr. Balfour, and Dr. Lyon Playfair, which we quoted, because they have not appeared in a blue-book. As they are about to appear in a blue-book, it will obviously be better to wait till they have done so, and Dr. Bell Taylor will then be better able to address his mind to them. Meantime, would it not be well for him to tender himself as a witness before the Royal Commission now sitting?

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. F. H. HEATHCOTE, not later than *Thursday*, twelve o'clock.

WE learn from Mr. J. Ashburton Thompson that he is the author of the case and model of a revaccination to which we have referred at reports of recent meetings of the Obstetrical Society, ascribing them to his partner Dr. Brunton, by whom they were exhibited.

MR. S. F. BAGNALL (County Infirmary, Preston).—The authorities on hospital construction are:—1. Sir J. R. Martin's article in vol. iv of Holmes's *System of Surgery*.—2. Captain Galton's paper and subsequent discussion at the Annual Meeting of the British Medical Association, Leeds, 1869.—3. Report of the Barrack and Hospital Commission.—4. Report of Cubic Space Committee of the Poor-law Board, 1867.—5. Parkes on Hygiene.—6. Galton on the Herbert Hospital.—7. Miss Nightingale on Hospitals.—8. Dr. Oppert on Hospital Construction.—9. Horace Swete on Cottage Hospitals.

SIR,—I am glad to see your JOURNAL taking up Mr. Evans. I did what I could some time since, but the College of Surgeons and the Medical Council seem afraid to interfere in all these matters. Mr. Evans, I know, makes about three times as much through his abominable books as any respectable practitioner could. The district post-office can give a tolerable estimate of his receipts. I enclose another kind of abomination, sent to all houses in the neighbourhood.

April 14th, 1871.

I am, etc.,

AN ASSOCIATE.

"Medicine without taste or smell. Sir Astley Cooper's pills, antibilious and aperient, are the most unfailing, safe, and generally applicable medicine ever prescribed for removing disorders of the head and stomach, such as giddiness, dimness of sight, headache, nausea, pains in the side, flatulency, habitual costiveness, eruptions of the skin, and the long train of nervous and hypochondriacal affections usually attendant on bad digestion, and generally arising from obstructions of the biliary secretions or other derangement of the functions of the liver or intestinal canal. Directions.—One, two, or three may be taken at bed-time once or twice a week, or as often as may be necessary in bilious attacks, or at any time in the day after over-indulgence at the table, and when it is required merely to evacuate the bowels; but in eruptions of the skin, headache, and the disorders peculiar to females, one pill should be taken every other night, till three doses have been taken, then omitted three nights, and resumed after the same manner till relief is obtained.—*.* These pills are enveloped in pure silver, which renders them free from taste or smell, and effectually preserves them against the action of time and climate.—Sold in boxes, 7½d., 1s. 1½d., 2s. 9d.—Prepared as by Mr. William Scott, by Mr. P. J. Kendrick, M.R.C.S., L.M., L.S.A., at the Laboratory, 17, Marchmont Street, London, W.C. May be obtained from all chemists and patent medicine vendors throughout the United Kingdom."

D. L.—There will be an examination for the Midwifery License of the College of Surgeons on Wednesday, the 24th instant. In your case, the fee will be three guineas. A certificate of having attended twenty cases is all that you will require.

DEATHS FROM ANÆSTHETICS.

SIR,—Another death from bichloride of methylene at Charing Cross Hospital is a thing, as Hamlet says, to "give us pause." Nothing can be so sobering or disheartening as these frequent accidents from anæsthetics. My excellent friend, Mr. Canton, is ready to admit what I have for years in vain tried to explain—that emotional "shock" is at the root of these deaths. These methylene compounds, once deemed infallible, are just as dangerous as chloroform or ether. A very marked death from ether appears in the late American journals. Cross examination of coroners and coroners' juries as to these anæsthetics have gone over the kingdom in the newspapers, as to why doctors differ on anæsthetics and patients die; theory proving one thing, dismal hard facts of practice another. I would suggest that some of our Societies or Colleges should forward or inaugurate a set of settled steady experiments with bichloride of methylene, chloroform, nitrous oxide, etc., on animals. A prize of a thousand pounds was offered by an eminent member of parliament, a couple of years ago, for something of the kind. It has partly fallen to the ground; yet deaths that make one shudder are occurring, and practical men set aside for mystics and theory-makers.

I am, etc.,

Sackville Street, April 24th.

CHARLES KIDD, M.D.

P.S.—The remarkable safety of the "laughing gas", though denounced by theory as the most deadly of all anæsthetics, should make us careful of *à priori* dogma. Seven deaths from anæsthetics are given in a late number of an American fly-sheet for this year; we have had three more in our English newspapers within this month. These are terrible and saddening facts for us all, that weary one in private society; the public talk at us so uncharitably. But surely something could be done in the way indicated, by testing the various anæsthetics further on such animals as rabbits, large dogs, birds, cats, kittens, etc.

A REJECTED STUDENT (Aberdeen).—The statements made are scarcely fit for anonymous publication. We shall be happy, however, to consider any moderate communication on the subject, with your signature attached.

HEMLOCK IN SCROFULA.

SIR,—If *critiques* upon papers published in the JOURNAL are permitted, I must protest against the reasoning of Dr. Fleming. Writing under the heading of "Hemlock and its Use in Scrofula", and instancing a case in which it was administered, he says—"It then occurred to me to recommend for the scrofula a trial of the hemlock. The iodide of iron was given at the same time, and suitable local remedies were applied to the ulcer." Considering that the use of hemlock in scrofula is extremely doubtful, and that the use of iodine and iron, combined with suitable local remedies, is not; it is rather hard upon the associates that they should be asked to believe Dr. Fleming (even backed by the ancients and Dr. Baudelocque) that hemlock is a cure for scrofula, *plus* "iodide of iron and suitable local remedies." If Dr. Fleming wants to test the use of hemlock in scrofula, by all means let him do so, *pur et simple*, and let us hear the result. It is this loose way of mixing up the action of different medicines (to say nothing of the *propter hoc* and *post hoc*) that brings such deserved discredit upon medicine and its administrators.

Cheltenham, April 29th, 1871.

I am, etc.,

ALFRED FLEISCHMANN.

A. Z.—On inquiry at the College, we find that you can legally sue for your attendance on the case mentioned, under the Medical Act of 1858. Your name appears in the *Medical Register*, a copy of which is sent free to 507 County Courts in England and Wales.

DR. KITCHENER (Chippenham).—Your informant must have been labouring under a misapprehension. There is no written rule of the British Medical Association bearing on the question of the etiquette of visits from or to a medical man settling in a new locality. We are, however, of opinion that, on the arrival of a medical practitioner in the town where he intends to reside, the ordinary rules of social etiquette should be followed; and that he is not expected to call on any one to whom he has not a special introduction.

A SPARTAN ARGUMENT.

SIR,—Since it appears to have been decided that marriage is bad for persons suffering from consumption, both on their own account and that of their offspring; and yet that, owing to the peculiar constitution of man, little attention seems likely to be paid to the decision arrived at; the question which next, I think, presents itself for consideration, is this—Is preventive medicine altogether desirable, or, in other words, good? Though it may be for families and individuals, is it beneficial for the country at large? Are not many sickly ones by this means for a time preserved, and do they not often rear up a sickly progeny? And is not the whole race likely in time to be contaminated by intermarriage with those of weakly constitution? May not, in fact, the country retrograde, owing to this very circumstance? Of course there are two sides to the question; and for this reason I think it would be well to see both clearly argued. I am, etc., F. P. ATKINSON, M.D., etc.

30, Bessborough Gardens, Vauxhall Road, S.W., April 28th, 1871.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, May 6th; The New York Medical Record, April 27th; The Boston Medical and Surgical Journal, April 27th; The Madras Mail, Feb. 27th; The Shield, May 6th; The Philadelphia Medical Times, April 19th; The Philadelphia Medical Independent, April 22nd; The Brighton Guardian, May 10th; The Shrewsbury Chronicle, April 28th; The Macclesfield Courier and Herald, May 6th; The Cardiff and Merthyr Guardian, May 6th; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. W. H. Smith, M.P., London; Dr. J. Rose Cormack, Paris; Mr. Donald Dalrymple, M.P., London; Dr. F. P. Atkinson, London; Dr. Vintras, London; Mr. T. H. Bartleet, Birmingham; Mr. J. Ashburton Thompson, London; Mr. Thomas Scattergood, Leeds; Mr. Nettleship, London; The Secretary of the Harveian Society; Dr. Skinner, Liverpool; Dr. Arthur Strange, Leavesden; The Secretary of the Pathological Society; Mr. S. Wright, Loughborough; Dr. A. B. Steele, Liverpool; Mr. Heather Bigg, London; Dr. Gull, London; Dr. Jenkins, Yonker; Messrs. Calvert and Co., Manchester; Dr. Burney Yeo, London; Dr. T. R. Adams, Croydon; Mr. E. B. Ravenhill, Wolverhampton; Dr. James Thompson, Leamington; Mr. E. H. Addenbrooke, Kidderminster; Dr. James Shurlock, Leamington; Mr. G. R. Oldham, Macclesfield; Dr. Woodward, Doncaster; Dr. C. B. Fox, Scarborough; Mr. Paradise, Guy's Hospital; Dr. Cordwint, Taunton; Mr. S. F. Bagnall, Preston; Dr. Parsons, Hawkshead; Dr. Norton, London; Dr. A. W. Edis, London; Mr. Cranch, Nottingham; Mr. C. Gold, London; Mr. L. Winterbotham, Cheltenham; Dr. Wiltshire, London; Dr. Louttit, Greenwich; Mr. James Williams, Holywell; Surgeon-Major Atchison, London; Dr. C. D. Smith, New York; Mr. Marshall Monckton, Hurstpierpoint; Dr. Nicholls, Chelmsford; Dr. V. Jagielski, London; Mr. F. Pollard, London; Dr. Beales, Congleton; Mr. Teevan, London; Mr. Gascoven, London; Mr. James Lane, London; Dr. Siordet, Mentone; Mr. Harvey, Vienna; Mr. J. B. Curgenvin, London; Mr. Lord, Hampstead; Mr. W. D. Husband, York; Dr. E. Waters, Chester; Dr. Day, Torquay; Dr. Kitchener, Chippenham; Mr. Hussey, Oxford; Mr. H. M. Fernie, Macclesfield; Mr. Henry Morris, London; Mr. Campbell, etc.

LETTERS, ETC. (with enclosures), from:—

Dr. T. L. Brunton, London; Dr. C. Handfield Jones, London; Dr. Frederick J. Brown, Rochester; Mr. F. J. Gant, London; Dr. Tilbury Fox, London; Mr. Wm. Adams, London; Dr. Althaus, London; Dr. E. L. Fox, Bristol; Dr. J. Batty Tuke, Cupar, Fife; Dr. John Jackson, Great Usworth; Dr. Ellis, Doncaster; Mr. P. T. Lyster, Athlone; Dr. George Johnson, London; Dr. David Page, Kirkby Lonsdale; Dr. H. O. Stephens, Bristol; Our Edinburgh Correspondent; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Our Dublin Correspondent; The Secretary of the Royal Medical and Chirurgical Society; Dr. Robert Henry, Pomeroy; Dr. Bradbury, Cambridge; Dr. Shapter, Exeter; Mr. Talford Jones, Brecon; Mr. Lough, Liverpool; Mr. Swanzy, Dublin; Dr. C. Kidd, London; Mr. T. Watkin Williams, Birmingham; Mr. Henry Arnott, London; Mr. Richard Davy, London; Mr. S. C. Noble, Kendal; Mr. Lucas, London; etc.

BOOKS, ETC., RECEIVED.

The Fifty-fifth Annual Report of the Manchester Royal Eye Hospital, for the year 1870. Manchester: 1871.
The Preparatory Programme of the National University for Industrial and Technical Training: with a Summary of Subjects, etc. London: 1871.
On the Relations of Prescriber to Dispenser: an Address. By D. Campbell Black, M.D. Glasgow: 1871.
An Analysis of One Hundred and Forty Cases of Organic Stricture of the Urethra. By John D. Hill, F.R.C.S. London: 1871.
Observations on One Hundred Cases of Stricture of the Male Urethra. By William Stokes, jun., M.D. Dublin: 1871.
The Second Annual Report of the Leamington Provident Dispensary, 1871.
Communications to the *Australian Medical Journal*. By Dr. Hogarth Pringle, F.R.C.S.E., Parramatta, N.S.W. Sydney: 1871.
George W. Childs: a Biographical Sketch. By James Parton. Philadelphia: 1870.

LECTURES

ON THE

EXPERIMENTAL INVESTIGATION OF THE ACTION OF MEDICINES.

By T. L. BRUNTON, M.D., D.Sc.,

Lecturer on Materia Medica at the Middlesex Hospital.

II.—ACTION OF DRUGS ON PROTOPLASM: GENERAL DIRECTIONS FOR EXPERIMENTAL INVESTIGATION.

Modes of Experimenting.—*Caution.*—*Action of Drugs on Protoplasm.*—*Action on Vibriones and Bacteria.*—*Contagium Vivum.*—*Action on Fungi*; on *Fermentation*; on *Putrefaction*; on *Oxidation*; on *White Blood Corpuscles*; on *Inflammation.*—*Action of Gases.*—*Steps of an Investigation.*—*Administration of Drugs.*—*Observation of Effects.*—*Interpretation of Results.*—*Minimum Fatal Dose.*—*Various Channels of Administration.*—*Excretion.*—*Mode of securing Animals.*—*Instruments required.*—*Mode of making Cannulæ, T-tubes, and Pens.*—*Narcotising Animals.*—*Action of Narcotics.*—*Introduction of Cannulæ into Vessels.*—*Injection of Fluids.*—*Division and Irritation of Nerves.*—*Artificial Respiration*; in *Mammals*; in *Frogs.*—*Administration of Gases or Vapours.*

MODE OF SECURING ANIMALS.—In order to determine in an exact manner what organs or parts are affected, we are obliged to make use of apparatus of various kinds ; and, before these can be applied to an animal, it must be prevented from moving. Frogs are fastened to a frog-board by a piece of cord with a noose at the end, slipped over each elbow and ankle. The frog-board may consist of a piece of mill-board about nine inches long by three inches broad, with four slits at the sides to keep the cords in position, or of a piece of wood the same size, and from a quarter to half an inch thick, with holes, through which the cords are passed. They may be fastened by simply tying them together or by sticking a small wooden pin into each hole, or by four screws, such as are used by fastening the wires of galvanic batteries, placed in the edges of the board. The last way is, I think, the most convenient. Rabbits are best secured by Czermak's holder and board (shown in fig. 1). The best cord is strong window

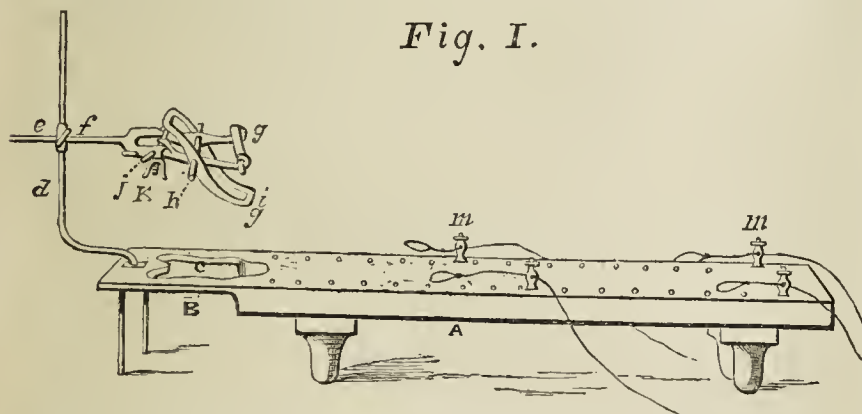


Fig. I.

Czermak's Rabbit Holder and Board. A. The board. B. A bent piece of iron forming the upper part of the board. c. An open space through which instruments can be introduced from below to divide the spinal cord. It is generally covered by an iron plate. D is an upright rod fixed by a screw into a slit in B. f is a forked rod, which can be moved back or forward, up or down, by the nut e. The forks are hollow, so that the ends of the holder can be passed into them and fastened by the screw j. h is a bar which passes behind the incisor teeth of the rabbit. g and g' are two bent bars which pass under the chin and over the nose of the animal, and are brought together by the screw l. From the upper end of g' hangs a screw, which passes between two projections on g, and has a mother-screw k. The screw k works against the projections on g, and draws the ends of g' and g together. These press on the rabbit's nose and under jaw and keep the teeth firmly locked over the rod h. m m are screws for fixing the cords which confine the legs. They are a remarkably convenient sort, consisting of an outer part with a horizontal hole, and an inner ring with a stalk on which a milled screw plays. When the milled head is at the top of the stalk, the inner ring and outer holes correspond, and the cord can then be easily pushed through; but when the milled head is turned, the stalk and ring are drawn up and the cord nipped between it and the outer part. The cords may either be fastened directly in the screw or passed first through one of the holes in the edge of the board. The board should be covered with a large pad of India-rubber stuffed with horsehair, and there should be another round pillow to put under the animal's neck.

cord. The one end should be flattened with a hammer, and turned over so as to make a small loop, whose two sides are then firmly bound together with waxed thread. Through this loop the other end is passed, and the noose thus made is ready to be drawn tight at any moment. The other end of the cord should be cut to a point and also bound with

waxed thread to prevent the strands unravelling. The rabbit is placed on the board, the nooses slipped over the legs and drawn tight, and the ends of each cord passed through the screw which will be nearest it when the animal lies on its back. The rabbit is then turned over, and the cords drawn through the screws and fastened. The bar *h* is then put between its teeth, and the screw *l* turned till *g* and *g'* fit tightly over its muzzle, and the projecting ends of *g* fixed into the ends of *f*. Dogs may be fastened by Bernard's holder (fig. 2A), or by a simple bar of

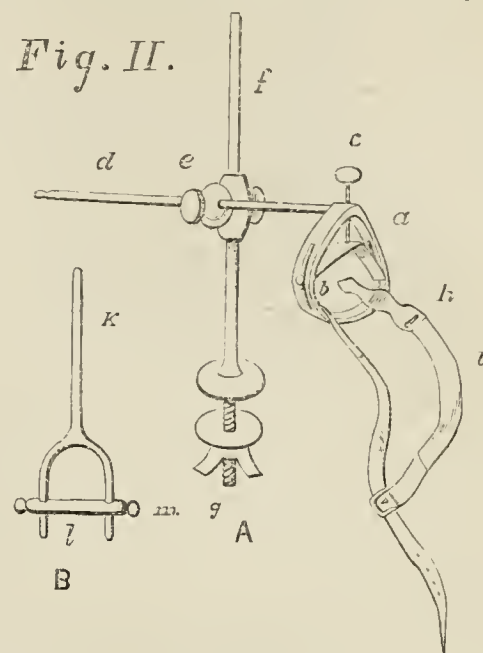


Fig. II.

A is Bernard's dog-holder. *a* is a metal ring, within which a bent piece of metal, *b*, is moved up and down by the screw *c*. *h* is a straight piece, which is fastened by a screw to *a*, and can be moved nearer to or farther from a corresponding piece at *b*. These two pieces lie under the lower jaw of the dog; the bent piece *b* is screwed down on its nose, and the strap *i* buckled behind its head, which is thus firmly fixed. It may be moved back or forward by sliding the rod *d* through the nut *e*, or up and down by moving *e* on *f*, which is a strong iron rod fastened to a table or board by the screw *g*.

B. Brunton's holder for dogs or rabbits. A loop of cord is tied round the upper jaw, the bar *l* passed behind the canine teeth of the dog or cat or incisors of the rabbit, and the two jaws then tied together to prevent its slipping out. This mode of fastening animals has been long used, and my modification simply consists in the addition of the forked bar *k*. After *l* is fastened in the mouth, the forked ends of *k* are pushed through holes in *l*, and fastened by the screws *m*. *k* may then be fastened to an upright bar by means of a nut in the same way as Bernard's or Czermak's holder.

iron put behind their canine teeth. A piece of cord is first tied round the upper jaw, the bar put into the mouth, and the two jaws tied firmly over it. A split strap may be used instead of the cord. I have had a bar made with a hole at each end, into which a fork of steel passes, and is secured by a screw. The fork may then be fastened by a nut to an upright rod, as in Czermak's holder (fig. 2B). Cats and guinea-pigs may be fastened by Czermak's holder. For guinea-pigs, a little padding must be placed between *g* and *g'* in order to make them catch the head. A simple bar and cord may also be used for rabbits, cats, and guinea-pigs, as well as for dogs.

INSTRUMENTS REQUIRED.—The instruments which we generally require for operations are—sponges, one pair of large scissors and one small pair, cutting well at the points, scalpels, forceps, small bull-dog forceps with smooth points, blunt hooks, a small aneurism-needle, flattened sidewise and with a rounded point (fig. 3 G), ligatures, finder (a kind of probe set in a handle to open up the lumen of a divided vessel), syringe, cannulæ, a piece of card, small whalebone-probe, and one or two swine's bristles. As these are very apt to be mislaid during an operation, I find it convenient to have a small wooden tray about three-quarters of an inch deep, with thin upright sides, and divided into compartments, one for each kind of instrument. It is advisable, also, to have an extra instrument or two of each sort.

WAY OF MAKING CANNULÆ.—Cannulæ for injecting into vessels may be made of metal (fig. 3 C) or of glass. Glass ones can be easily made of any size required by heating a piece of glass-tubing over the flame of a blow-pipe, and drawing it out in the middle, as represented by the dotted line (fig. 3 D.) It is then heated at *a* and slightly drawn out, so that a bulging piece is left between *a* and *c*; it may then be heated and very slightly drawn out at *b*, then cut with a three-cornered file at *c*, and the point ground obliquely off on a hone. If the point be at all sharp, its edges may be rounded in a gas-flame. When the cannula is introduced into a vessel, a ligature at *a* prevents it from coming out: it may be connected with a syringe or with any piece of apparatus by a piece of India-rubber slipped over the other end and tied

at *b*. A cannula for connecting an artery with a kymographion may either be of this sort, or may be made of metal of the shape shown in fig. 3 A. As it is difficult to hold it with forceps, it should be put on a piece of wood or whalebone of the shape shown at *B*. This both holds it firmly, and the point entering the vessel allows the cannula to be more readily pushed on into the lumen. A few notches on the side of the cannula prevent the vessel and ligature with which it has been tied from slipping off the end. By means of the little ear at *e*, it can be tied to the tube, on to which it is fitted.

MODE OF MAKING CANNULÆ, T-TUBES, AND PENS.—Cannulæ for the trachea are made by closing one end of a tube, directing a small blow-pipe flame against a point in its side till it is quite soft, and then suddenly blowing into it. The soft part expands into a thin bulb, which is scraped off, and a hole remains in the side of the tube. The object of this hole is to allow the air to escape during expiration. Instead of a hole in the cannula, one may be cut in the side of the India-rubber tube to which it is connected; but this is more apt to be accidentally closed. The tube is then drawn out into the form seen at Fig. 4 A, cut off at both ends, and one end ground obliquely off on a sandstone with some water.

A knob may be made at the ends of other cannulæ for various purposes, by heating the end and striking it against a piece of glass or iron, or by heating the end in a flame, continuing to blow steadily through the tube while you do so.

T-tubes are made by blowing a hole in the side of one tube, in the same way as for a respiration-cannula; and then putting the heated end of another tube over it while the first is still hot, so that the two stick together. The joint must then be annealed by heating it in an ordinary gas-flame, reducing the size of the flame gradually, so that the glass may cool very slowly.

Pens for use with a kymographion are made by drawing tubes to a point, as shown in Fig. 3, E and F; and grinding the point on a fine hone, and rounding it, if necessary, in the flame.

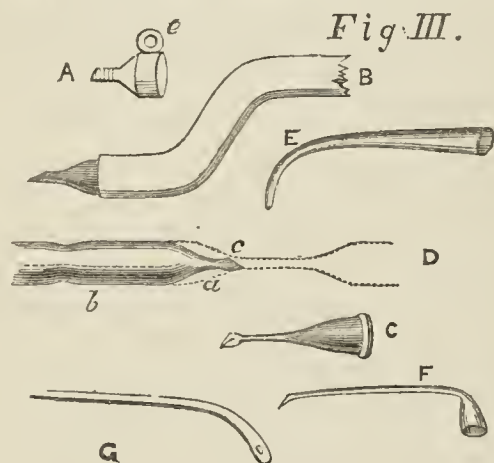


Fig. III.
A is a metal cannula with an ear *e*, by which it can be fastened to any tube connected with its large end. B is an instrument for introducing A into a vessel. It consists of a piece of metal tubing, with a pointed piece of wood at one end, over which A is put. The point projects through the smaller opening in A, so as to enter the lumen of the vessel readily. C is a metal cannula which fits on the end of a syringe for injecting fluids into vessels. D is a glass cannula. The dotted line shows the original tube drawn out in the blowpipe flame; the darker line shows the finished cannula. E and F are two pieces of glass tubing drawn out to make pens. They may be attached by pieces of cork to any writing apparatus. G is an aneurism-needle.

NARCOTISING ANIMALS.—Narcotics cannot be given in all cases to animals on which we experiment, as their action must to a certain extent complicate that of the drug which we wish to investigate. We cannot use them when we are observing what are the general symptoms which a medicine produces. But, when we are investigating its action on particular organs, we may often use them, not only with safety, but with advantage, when they have no action on the particular organ which we are studying, or so little that its disturbing influence is more than compensated by the diminished muscular action, and consequent ease in performing the experiment, which narcotics produce.

It is almost unnecessary to say that, in all cases which admit of it, narcotics should be used, as we have no right to inflict any unnecessary pain, although we may be justified in taking the lives of the lower animals in order to preserve the more valuable life of man, either by supplying him with food by means of those killed in the slaughter-house, or by obtaining the knowledge which shall enable us to cure disease by means of those killed in our experiments. The narcotics which we use are opium and chloral. Chloroform is inadmissible, as its adminis-

tration generally seems to cause dogs more pain than the experiment itself, and rabbits are very easily killed by it.

A convenient form of giving chloral is a solution containing half a grain in 1 minim or 1 gramme in two cubic centimètres of water. The dose for a frog is 2 to 5 centigrammes, or about 1 to 5 drops. The dose for guinea-pigs is about 12 minims of this solution for an animal half a pound weight; and more or less may be given, according to the weight of the animal, 18 minims being given to one weighing three-quarters of a pound, and 24 to one weighing a pound. About the same proportion of dose to weight may be employed for rabbits.

Opium may be given in the form of laudanum, or of solution of acetate or hydrochlorate of morphia. Much as it is used, the proper dose for different animals has not been exactly determined. We do not often employ it to narcotise guinea-pigs or rabbits, but frequently for dogs. The dose for a medium sized dog is about 40 minims or 2½ cubic centimètres of laudanum, or 2 drachms of liquor morphiæ, which is equal to 1 grain or 5 centigrammes of morphia. This dose is for injection into a vein: when injected subcutaneously, rather more should be given. If the dog be above or below middle size, the dose must be proportionately increased or diminished. We must be careful not to give too much opium to old dogs, or they will die. Opium is preferred by some to morphia, as producing more certain narcosis, and being less likely to produce the excitement and hyperæsthesia which sometimes follow the administration of morphia.

When we wish to render the animal absolutely motionless, or to observe what effect any drug will produce after the motor nerves have been paralysed, we give curare. Small doses of this remarkable substance paralyse the motor nerves of muscles, but leave the vagi and vaso-motor nerves unaffected. Large doses of it seem also to cause paralysis of the vagi. It affects the blood-pressure to a certain extent, moderate doses contracting the vessels and raising the pressure, while large ones lower it. The dose of curare for a frog is about 1 to 5 drops or more of a solution of 1 part in 1000. The dose varies with the size of the frog and the purpose for which we wish it. If we wish to observe the circulation microscopically, we must not give too large a dose, or the heart may stop. To rabbits, ½ to 1 cubic centimètre or 8 to 15 minims, and to dogs, 4 to 6 cubic centimètres or 1 to 2 drachms, of such a solution, may be given.*

Definite rules cannot be laid down as to the experiments in which narcotics may or may not be used. The experimenter himself must judge in each case whether their action is likely to disturb that of the drug to be experimented on or not. For this purpose, he must know the action which the narcotics themselves produce; and I will, therefore, mention in a few words what that of each is.

ACTION OF NARCOTICS.—Chloral acts on the brain, producing deep sleep, during which there is no sensation or voluntary motion. The reflex function of the spinal cord is first increased and then diminished in frogs; in guinea-pigs and rabbits, it is diminished for thermal irritations, but not for tactile ones—pinching producing reflex action, but burning or pricking none. It leaves the motor nerves, vagus, and muscles unaffected; but diminishes the activity of the respiratory nervous centre, rendering the breathing slow; and of the cardiac ganglia, somewhat weakening the heart. It lessens the blood-pressure and temperature, probably by dilating the vessels at the surface as the ear of a rabbit becomes hot and its vessels dilated, while the general temperature is falling.

Opium is a mixture of several alkaloids, some of which are purely narcotic, while others produce tetanus, just like strychnia, and others partake of both characters. This is the case with morphia, in which, however, the narcotic qualities predominate. In small doses it first slightly increases, and then diminishes the irritability of motor and sensory nerves, and the reflex action of the cord, the irritability of the vagus (ends and central roots) and the musculo-motor apparatus of the heart, and the temperature. If the dose be large, those functions may be at once lessened. The blood-pressure varies, but is generally raised.

The advantage of giving either a narcotic or the drug to be investigated by injection into a vein rather than subcutaneously is, that the action is immediate, and we know that the whole of the dose has taken effect; whereas, after subcutaneous injection, a part may remain for some time in the cellular tissue before it enters the blood and becomes active. The most convenient vein is the external jugular. In dogs, however, it is sometimes more convenient to inject the narcotic into a vein which runs obliquely across the outside of the hind knee-joint. Before injecting, we must introduce a cannula into the vein; and the introduction of a cannula into a vessel is an operation on

* Curare may be obtained from Messrs. Hopkin and Williams, New Cavendish Street, London; or from Bruckner and Lampe.

the proper performance of which the success of many an experiment depends.

INTRODUCTION OF CANNULÆ INTO VESSELS.—First, the hair must be cleanly clipped or shaved away, and loose hairs removed by a moist sponge. The skin, subcutaneous cellular tissue, and cutaneous muscles, are divided with a scalpel, and any bleeding vessels are twisted or ligatured. If the vessel lie deep, the muscles are separated from each other by the finger of the operator, or by a blunt aneurism-needle, and any unyielding connective tissue may be cut by a pair of scissors. That surrounding the vessel itself should be separated from it by the aneurism needle. A closed pair of forceps may be pushed under the vessel and then opened. This both raises it from its bed, and lays bare a considerable part of its course. A couple of ligatures are now caught between the jaws of the forceps and drawn through. The proximal end of the exposed part of the vessel is now compressed by a pair of smooth-pointed bulldog-forceps, or a ligature laid in a simple slipknot; one ligature is firmly tied round the distal end, and the second ligature is tied in a loop round the middle, but is not drawn tight. A small piece of calling card, about an eighth of an inch broad, is then slipped under the vessel, so that it may rest on it and remain steady; its walls are then snipped by a sharp-pointed pair of scissors just on the distal side of the loop. The finder, or aneurism-needle, may be introduced so as to make the opening more distinct, and, if necessary, this may be enlarged by the points of the forceps being introduced, and then separated. One lip of the divided vessel is seized by the forceps, the cannula introduced, and the loop drawn tight over it so as to tie it firmly into the vessel. The cannula is then filled by a small glass pipette with the fluid to be injected, the syringe is fitted on, the bulldog forceps removed, and the requisite amount injected. The bulldogs are again put on, and the syringe removed.

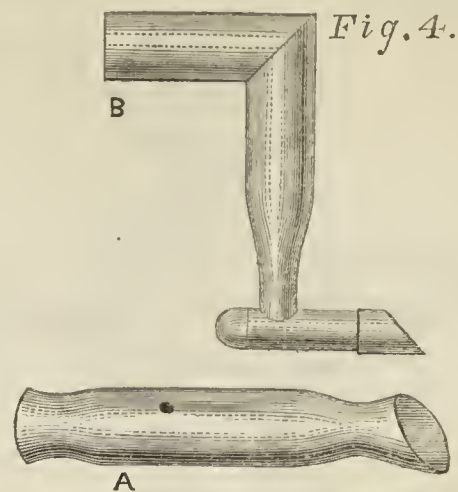
INJECTION OF FLUIDS INTO VESSELS.—First, we prepare the solution to be injected in a test or a watch-glass, and see that the syringe is in working order. The most convenient is one for subcutaneous injection, with a glass barrel and a graduated piston. On the piston-rod a small nut screws up and down, so that it can be set to any figure on the rod, and thus prevents it from being any further pushed in, so as to allow the exact amount required to be given at once, but prevent the accidental injection of more than this amount. The end of the barrel must either fit directly into a cannula of the shape shown in fig. 3C, or it may be adapted to a glass cannula by tying a small piece of India-rubber tubing to the cannula. The cannula is then introduced into the vessel as already described. A fine pipette must be at hand, made by drawing a piece of glass tubing to a point, and by this the cannula, or cannulæ with the attached India-rubber tubing, must be carefully filled with the fluid, so that no air-bubbles remain. The syringe is then connected to it, the slip-knot of the ligature untied, or the bulldogs compressing the vessel in front of the cannula removed, and the necessary amount injected. The slip-knot is then re-tied, or the bulldogs replaced, if a second dose is to be given. If no more is to be injected, the vessel may be firmly ligatured.

DIVISION AND IRRITATION OF NERVES.—The nerve must be laid bare, and separated from the surrounding connective tissue in the same way as a vessel, especial care being taken never to seize the nerve itself with the forceps. Blood must be removed by a sponge squeezed quite dry, and the nerve must on no account be touched with water. If we wish to remove any adhering clot, or if the nerve happen to get dry through long exposure, it may be moistened with a little saliva or serum. A director is then pushed under the nerve, or we raise it up by a ligature passed below it, so as to secure the adjoining vessels from injury, and we then divide it by a pair of scissors. Very often we wish to have the nerve prepared for section some time before we actually divide it. We then pass the ligature under it and tie the two ends together, so as to prevent the ligature from being pulled from below the nerve, and thus form a loose loop by which we can at any moment raise and divide the nerve.

Nerves may be irritated by pinching, the application of strong saline solutions, or heat; but generally we use Pulvermacher's galvanic forceps, which are made of alternate wires of copper and zinc, and dipped in acetic acid, or, still oftener, the interrupted current from Du Bois Reymond's induction coil. The most convenient electrodes for this purpose consist of two wire points, about a quarter to half an inch long, and an eighth to a quarter of an inch apart. They may either be set in an ivory handle, or they may be simply fixed in a piece of glass tubing by means of cement or sealing-wax, or simply pushed through a piece of cork.

ARTIFICIAL RESPIRATION IN MAMMALS.—Artificial respiration is chiefly used to keep an animal alive after it has been poisoned with curare, for the purpose of rendering it perfectly still during an experiment; or after the thoracic cavity has been opened for observation or

experiment on the viscera it contains. It is performed by introducing a cannula into the trachea, and inflating the lungs by means of a bellows connected with it by India-rubber tubing.



A is a glass cannula for artificial respiration, large enough for a small dog. A hole for the exit of expired air is seen in the side. B a metal one for a rabbit. The hole for expiration is at the top, and not visible in the figure. The lower part of the cannula can be turned round upon the upper at a joint about one-third of the way from the top, not marked in the figure. The tube which conveys air can thus be brought from the side instead of the front.

To introduce the cannula, an incision is made in the middle line below the cricoid cartilage through the skin and cutaneous muscles; the larger muscles lying along the side of the trachea are separated from it by an aneurism-needle or the handle of the knife, and a strong ligature is passed under it by an aneurism-needle or forceps, care being taken to avoid the veins which lie close to its posterior wall. A round or oval piece must then be cut out of the front of it by the scissors or knife, and the cannula introduced, and tied firmly in by the ligature.

When the knee-shaped metal cannula is used, it is advisable to push the heel of the cannula into the trachea, so that the tube lies quite in its lumen. After the cannula has been tied into the trachea, the ends of the ligature may be fastened round the upright bend of the knee, to ensure that it do not slip out. The bellows may be simply held in the hand, or fastened to the under side of a table by means of a piece of board screwed to its upper side and larger than the bellows itself, so that there is a rim of board all round. A few screws passed through this projecting rim into the under side of the table hold the bellows fast. A small pulley (one used for window-blinds will do) is then screwed into the under side of the table, and a cord passed over it. One end of the cord is fastened to a piece of board a foot and a half or two feet long, which serves as a treadle; and the other end to the under board of the bellows, so that it may be drawn up when the treadle is pressed down by the foot. A weight must be attached to the under board of the bellows, in order to draw it down again after it has been raised. The respiration is kept regular by depressing the treadle in accordance with the beat of a metronome set to beat the proper number in a minute.

The apparatus may be rendered more complete by the introduction between the bellows and trachea of a valve which will allow the air to pass readily towards the trachea, but hinder its return. Such a valve may be readily made by passing two pieces of glass tubing through the cork of a wide-mouthed bottle, and partially filling it with mercury or water. The tube nearest the bellows must descend nearly to the bottom of the bottle, while the other just passes through the cork. The air from the bellows passes easily through the mercury or water in which the end of one tube dips; but any attempt to return simply raises the mercury in the tube. If water be used, the tube must be longer, so that it may contain a column of water sufficiently high to afford the necessary resistance to the return of the air. This sort of valve is termed Müller's valve. (Fig. 5, v.)

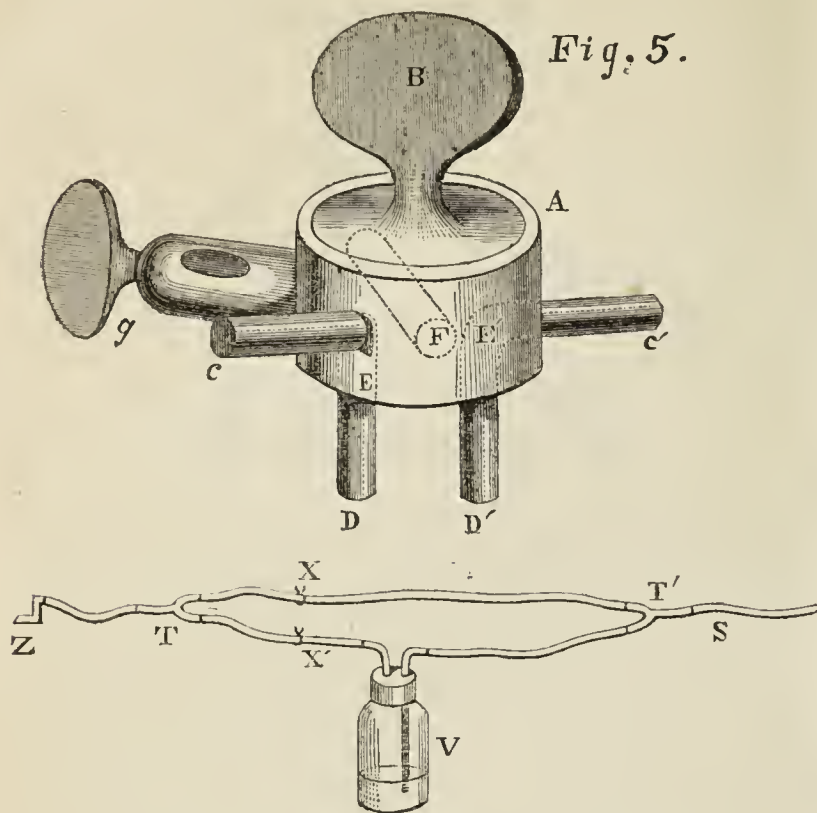
ARTIFICIAL RESPIRATION IN THE FROG.—Although the frog can live perfectly well for some time without breathing, it may be desirable in some experiments to employ artificial respiration. A cannula for this purpose is best made by heating the end of a glass tube about one-eighth of an inch in diameter (more or less, according to the size of the frog), and then suddenly pressing it down on a metal plate, so that a broad rim is formed round the end. The sides of the larynx are seized by two artery forceps, the cannula introduced, and tied firmly in. A Richardson's spray-producer, from which the tubes have been removed, is then connected to it and used as a bellows.

INTRODUCTION OF GASES OR VAPOURS INTO THE LUNGS.—Gases

or vapours may be introduced into the lungs either by simple inhalation or by artificial respiration. For the inhalation of a gas, a conical bag of oilskin, India-rubber, or bladder, must be made to fit the snout of the

stopcock, pure air may be passed direct to the lungs through c', F, and c, or it may be loaded with vapour by passing it through d' into the bottle, and then up through d and c to the lungs.

Fig. 5.



animal, and connected with a bag, bladder, or gas-holder containing the gas. Or a tube may be put into the trachea and connected with the gas-holder.

For the inhalation of a vapour, a cone of strong paper or cardboard may be used, the wide end being put over the muzzle, and the liquid, the vapour of which is to be inhaled, dropped on a piece of blotting-paper and put on the small end. Or the whole cone may be made of blotting-paper.

Many different kinds of apparatus have been used for the artificial respiration of gases, among which may be mentioned the ingenious instrument of Thiry and the beautiful respiration-pump of Ludwig. The simplest method probably is to have the gas in a bag, connected by means of the bottle or Müller's valve with the tracheal cannula. The gas may then be forced into the lung at intervals, by alternately compressing and relaxing the bag.

Air may be loaded with vapour of any kind of fluid before it is sent into the lungs, by either mixing the fluid with the water in the bottle-valve, or by emptying out the water and putting a little of the fluid alone on the bottom of the bottle. Pure air or air loaded with vapour may be sent into the lungs alternately by the arrangement shown in fig. 5. A stream of air is sent from the bellows through the India-rubber tube S, and divided into two by the T-tube T'. When the clip x is removed, and x' put on, the air passes straight through to the tracheal cannula Z. If x be now put on, and x' removed, the air passes through v, and becomes loaded with the vapour of any fluid placed in the bottle.

The alternation may be effected still more rapidly and conveniently by a stopcock which I have had made for this purpose. Two tubes, c and c', pass from its sides, and two others, d and d', from its bottom. The interior is perforated with three holes. Two of these, e and e', are L-shaped, and one (f) passes straight through from side to side. When the handle B is in a line with c and c', their lumen corresponds with that of the hole f, and air passes straight through. When B is transverse, the hole e corresponds with c and d, and e' with c' or d', so that air passing in through c' passes down through d', and may pass up through d and out at c. When B is neither in a line with c nor yet transverse, but half-way between, the holes in the interior do not correspond with those on the exterior of the stopcock, and no air can pass at all, and it may thus be used for experiments on asphyxia. When such experiments are made, the hole in the tracheal cannula must be carefully stopped with white wax. By means of the screw G the stopcock may be fastened to the rod e of the rabbit-hold in fig. 1. The tubes d and d' may either be attached by pieces of India-rubber tubing to tubes of a bottle such as v, or they may be themselves passed through the cork and a small piece of glass-tubing long enough to reach the bottom of the bottle attached to d'. By then simply turning the

THE PHYSIOLOGY AND PATHOLOGY OF THE CIRCULATION.

By GEORGE JOHNSON, M.D., F.R.C.P.,
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IN an able and interesting leading article on Blood-letting in the BRITISH MEDICAL JOURNAL of March 18th, with the greater part of which I entirely agree, reference is made to some recent observations of Messrs. Legros and Onimus on the influence of the arteries upon the circulation. The writer says: "The part of the circulation the most important to the life of the individual is probably the peristaltic wave, which carries on the blood in an even stream through the muscular arterioles, and which Messrs. Legros and Onimus describe as closely resembling the motions of the alimentary canal." So highly does the writer estimate the doctrines of these physiologists, that, after referring to the observations of Waller, Claude Bernard, and Brown-Séquard, he adds, "but, above all, those of Messrs. Legros and Onimus." The doctrines of Legros and Onimus are also expounded and accepted in an article on the Pathology of the Microscopic Arteries, in the last (April) number of the *British and Foreign Medico-Chirurgical Review*. The papers of the French physiologists are published in Robin's *Journal de l'Anatomie et de la Physiologie*, 1868. I have read them with great care; and not only do I find there no proof that the arteries, by a peristaltic contraction, exert a propulsive influence upon the blood, but I find it impossible to reconcile this hypothesis with the facts regarding the physiology of the circulation which have been established by the observations of Waller, Bernard, Brown-Séquard, Marey, and others.

Messrs. Legros and Onimus are not sufficiently careful to distinguish between the functions of the large elastic arteries and those of the microscopic muscular arterioles. The pulsating wave in the former is obvious and palpable, and it is explained by the action and reaction of the ventricular contraction and the arterial resiliency by which the intermitting rush of blood from the heart is gradually converted into a continuous stream in the small arteries and capillaries. This is the pulsation which Messrs. Legros and Onimus have seen without a lens in branches of the retinal artery and in the ear of the rabbit. The arteries that are large enough to be visible by the unaided eye are mainly elastic, and contain very little muscular tissue. If with a high power we watch the circulation in the web of the frog's foot, we see that the blood-current is equable, and continuous both in the capillaries and in the muscular arterioles. It may sometimes be seen that the impulse from the heart slightly distends the larger microscopic arteries. There is a slight dilatation of the arteries at each contraction of the heart. More commonly, however, the minute arteries remain of uniform size; there is no appearance of dilatation or contraction, and certainly there is no indication of a peristaltic contraction.

It is a well established fact that, in order that a muscular canal may drive on its contents in a definite direction, it must either be provided with valves, or it must contract in the form of a peristaltic wave, like the intestine. We know that the minute arteries have no valves; and we see in the transparent parts of animals that they do not contract peristaltically. It is obvious, therefore, that while, by their contraction, they regulate the blood-supply, they have no power to forcibly drive the blood onwards. This is the generally accepted doctrine, and it is not likely to be more than momentarily disturbed by the inexact observations and loose reasoning of Messrs. Legros and Onimus. These writers maintain that, if the muscular fibres in the arterial walls were intended merely to regulate the current of blood, they would be found most abundantly in the arteries near the heart; whereas, on the contrary, the most minute and distant arteries are notoriously the most muscular. Exactly so: for the obvious reason that the smallest arterioles alone can regulate the blood-supply to the capillaries of each particular tissue and organ.

As an illustration of their unsatisfactory method of dealing with well known phenomena, I will refer to two points. The characteristic pulse of aortic regurgitation—momentarily full, but quickly collapsing—which they inaccurately call "hard and strong", they explain by saying that "the arterial contractions tend to supplement the insufficiency of the cardiac contraction". This explanation is intended to replace that which is generally received, and which seems so simple and satisfactory—namely, that for a brief period the whole arterial system

is distended by the forcible propulsion of a large volume of blood from a dilated and hypertrophied left ventricle, while the speedy collapse of the pulse is explained by the reflux of blood through the unclosed aortic orifice into the ventricle during its diastole.

The venous murmur of anæmia—the *bruit de diable*—they affirm to be arterial, and not venous. It is difficult, they say, “to believe that the continuous murmur occurs in the veins where the current is so feeble, and the walls of which have too little tension to vibrate.” Dr. Ogier Ward was the first to demonstrate that the *bruit de diable* is a venous murmur. We refer those who are sceptical upon this point to the unanswerable arguments in favour of the venous origin of the murmur set forth in Dr. Walshe’s work on *Diseases of the Heart* (third edition, p. 143.)

The writer of the article in the *British and Foreign Medico-Chirurgical Review*, to which I have already referred, has done me the honour to notice approvingly my own labours in the field of arterial pathology, for which I feel grateful. In return for the criticism with which he favours me, I venture to intimate to him that he has himself fallen into one serious error. In proof of the doctrine that the arteries alone suffice by their contractions to carry on the circulation, he refers to the case of an acardiac foetus published by Sir Benjamin Brodie, of which the reviewer says that it “lived several days after birth”. Startled by this seemingly incredible statement, I referred to the paper in the *Philosophical Transactions* (1809, p. 161), where it is stated that “both foetuses were born dead”. It is a well established fact that an acardiac foetus has never been known to occur except in association with a twin foetus perfectly developed; and Sir Astley Cooper, describing a case of the kind (*Guy’s Hospital Reports*, vol. i), first clearly demonstrated that, by means of the communication between the arteries and veins of the two foetuses at the junction of the umbilical cord with the placenta, the heart of the perfect foetus drives the blood through the vessels of its acardiac companion. In the words of Sir Astley Cooper, “the heart of the developed child impelled the blood into the other which was appended to it in the same way as it caused that fluid to circulate through the vessels of one of its own limbs.” Appended to Sir A. Cooper’s paper is a note from Sir B. Brodie, accepting Sir Astley’s explanation of the facts, and admitting his former error in supposing that the circulation in an acardiac foetus was carried on independently. It is evident that no proof of the independent propulsive influence of the arteries upon the blood is afforded by the case of an acardiac foetus; and it is surprising that a learned writer on physiology in a scientific journal should suppose it possible that such a monstrosity, not only heartless, but headless, could live for several days after its birth and consequent separation from its hearty companion.

With reference to my discovery and interpretation of hypertrophy of the muscular walls of the minute arteries in chronic Bright’s disease, the reviewer, while he accepts the facts, disputes my interpretation of them. He doubts (1) whether hypertrophy of muscle results from over-action, and (2) whether “abnormal increase in bulk implies an increased power of action”. Obviously, then, he doubts, for example, whether the increased action of the heart which is associated with an ossified aorta leads to hypertrophy of the left ventricle, and whether the hypertrophied ventricle propels the blood with greater force than a ventricle of the normal thickness. His scepticism upon this point is as surprising as his credulity with respect to the viability of an acardiac foetus.

As an antidote to the novel doctrines of this writer, I would suggest a careful study of Mr. Paget’s philosophical account of hypertrophy and its conservative tendency in his *Surgical Pathology*. With reference to a specimen of hypertrophy of the walls of the bladder, Mr. Paget quotes the following characteristic passage from John Hunter. “The bladder in such cases [of obstruction to the passage of urine], having more to do than common, is almost in a constant state of irritation and action, by which, according to a property in all muscles, it becomes stronger and stronger in its muscular coats; and I suspect that this disposition to become stronger from repeated action is greater in the involuntary muscles than the voluntary; and the reason why it should be so is, I think, very evident; for in the involuntary muscles the former should be in all cases capable of overcoming the resistance, as the power is always performing some natural and necessary action; for whenever a disease produces an uncommon resistance in the involuntary parts, if the power is not proportionately increased, the disease becomes very formidable; whereas in the voluntary muscles there is not that necessity, because the will can stop whenever the muscles cannot follow; and, if the will is so diseased as not to stop, the power in voluntary muscles should not increase in proportion.” Upon this extract from Hunter, Mr. Paget remarks: “Nothing, surely, could more appositely or more exactly express the truth concerning hypertrophy of muscle.”

ON THE SELECTION OF CASES FOR THE OPERATION OF SUBCUTANEOUS DIVISION OF THE NECK OF THE THIGH-BONE.*

By WILLIAM ADAMS, F.R.C.S.,
Surgeon to the Royal Orthopædic and Great Northern Hospitals.

SINCE I brought under the notice of this Society, on April 25th, 1870, the operation of the subcutaneous division of the neck of the thigh-bone—an operation which I had performed for the first time in the annals of surgery on December 1st, 1869, and it may be remembered that I exhibited the man in this room, able to stand and walk without any assistance—the operation has excited a great deal of attention, and been successfully performed four times by different provincial hospital surgeons—viz., twice by Mr. T. R. Jessop of Leeds, once by Mr. Furneaux Jordan of Birmingham, and once by Mr. F. W. Jowers of Brighton. The operation has been only once performed in London, by Mr. J. Croft of St. Thomas’s Hospital, on March 4th, 1871, on a boy aged eight years, who had fibrous ankylosis of the left hip-joint, with the limb in a deformed position, the femur being flexed at a right angle and considerably adducted. There had been abscesses in the neighbourhood of the joint, but for five years all suppuration was said to have ceased, and the hip-joint disease was said to have commenced when the child was about two years old. I was present at this operation, and concurred in the advisability of its performance, in consequence of the extreme deformity, which rendered the success of any other method of treatment very doubtful; as well as of the length of time which had elapsed since the closing of the abscesses, although the case belonged to a class altogether different from that for which I had originally proposed the operation. In this case, extensive suppuration followed the operation, and the child died of pyæmia on March 30th. The *post mortem* examination showed that the neck of the bone had been divided. The head of the bone had been, to a great extent, destroyed by caries, and the fibrous ankylosis broken up by the suppurative process, and perhaps partly by some attempts at forcible extension, which had been employed a week previously, when the contracted muscles in the neighbourhood of the joint had been divided.

The general result, therefore, is, up to the present time, that this operation has been performed in six cases: in five cases for bony ankylosis, successfully; and once for fibrous ankylosis in a child, unsuccessfully; and in the first class of cases, either no suppuration, or very little suppuration followed the operation; whilst, in the latter, acute suppuration set in and terminated fatally.

Amongst the various questions which have arisen in connection with this operation, two of the most important refer to the particular class of cases to which the operation is applicable, and to those in which the operation cannot be performed; and the object of the present paper will be to define these cases, for practical purposes, with as much accuracy as possible.

Bony ankylosis of the hip-joint is known to take place as the result of several morbid conditions and diseases, which, in their general pathology and progress, especially in reference to their destructive or non-destructive character, as affecting the bones, are essentially different. For example, when bony ankylosis has taken place as the result of strumous disease of long standing, and accompanied with suppuration, destruction of the head of the bone from caries and necrosis, and sometimes also of the neck, to a greater or less extent, generally occurs, the disease itself being essentially of a destructive character, tending to caries and necrosis of bone. In these cases, displacement and fusion of parts in abnormal positions frequently take place.

On the other hand, when bony ankylosis has been the result of acute rheumatic inflammation, in its more severe form, as we not infrequently see it in the so-called gonorrhœal rheumatism, when it is generally localised in one joint, no disposition whatever exists either to the destruction of bone, or to dislocation: acute rheumatic inflammation not being of a destructive character, but tending to the effusion of plastic lymph, and organisation of adhesions, without any disposition to suppuration, to ulceration, or to caries in the bones. Rheumatic inflammation will, therefore, produce adhesions within the joint, and a kind of fibrous ankylosis, which, after a slow disintegration of the articular cartilage, terminates in true bony ankylosis, but without any loss of bone-structure; so that, in such cases, the head and neck of the thigh-bone invariably remain of their full natural proportions.

It is equally true that the head and neck of the thigh-bone remain unaltered in size in cases of bony ankylosis after pyæmic inflammation, especially in its subacute form, from which patients generally recover,

* Read at the Medical Society of London, April 24th, 1871.

and to which gonorrhœal rheumatism is by some thought to belong. In this class of cases, the soft structures of the joint, including the cartilage, are destroyed, and bony ankylosis results; but there is no fear of progressive caries, or necrosis of bone, so that ankylosis is produced without loss of bone-substance.

In some other classes of cases the soft structures of the joint are destroyed by acute inflammation, and bony ankylosis is produced without loss of bone-substance. This occurs, for example, after traumatic inflammation in healthy adults, such as that which follows wounds of the joints, and gun-shot wounds in the neighbourhood of the joints, when the joint itself has escaped injury, and, in some cases of ankylosis, chiefly from long-retained position.

This is an important pathological law; and, as the case upon which I operated was one of bony ankylosis after acute rheumatism seven years previously, I had no fear of meeting with any loss of substance or dislocation. It is of great importance, however, to bear in mind the fact that there are some cases of bony ankylosis of the hip-joint, and especially those resulting from the long continuance of strumous disease, in which the head and neck of the thigh-bone are so much destroyed that, for practical purposes, in reference to this operation, the neck of the bone may be said not to exist, although, correctly speaking, it more frequently happens that the head of the bone is destroyed, and the neck, somewhat diminished in size from deficient growth, remains embedded in the acetabulum.

It is a grave pathological error to imagine that because the head and neck of the bone are more or less destroyed in some, this must necessarily be so in all cases of bony ankylosis. This error has, however, been recently committed by Mr. Brodhurst, who, in the course of a correspondence in reference to this operation, has, in the *BRITISH MEDICAL JOURNAL* for April 1st, 1871, adduced and figured from St. George's Hospital Museum, 3rd Series, No. 3, a case of bony ankylosis of the hip-joint, in which the head and neck of the thigh-bone have been destroyed by strumous disease; and this he assumes to be the ordinary condition of bony ankylosis; for, referring to a diagram of a healthy thigh-bone which I had figured in my paper, merely to show the situation and direction of the subcutaneous division I proposed, Mr. Brodhurst observes—"Thus it will be seen that Mr. Adams made his section, as shown in the diagram, when little or no alteration had taken place in the neck of the thigh-bone. If bony ankylosis had taken place, the section could not have been made as it is described and represented by Mr. Adams, for the sufficient reason that the parts are not there." Pathological inquiry, however, teaches us that the existence of the head and neck of the thigh-bone, in their natural proportions, is quite compatible with true bony ankylosis of the hip-joint; and also in what cases the head and neck of the bone are preserved in their natural proportions, and in what cases the head and neck are destroyed, to a greater or less extent.

In confirmation of the opinion which I have above expressed, that in many cases of bony ankylosis of the hip-joint, the head and neck of the thigh-bone remain of their full natural proportions, whilst in other cases they are more or less destroyed—but only in some instances to such an extent as to prevent the operation of the subcutaneous division of the neck of the thigh-bone being performed—I need only refer to the specimens in the various museums of London, where many typical examples of both these classes of cases are to be found.

For instance: in the Museum of the Royal College of Surgeons there are four specimens of bony ankylosis at the hip-joint, Nos. 3325, 3326, 3327, and 3327b. In two of these specimens (Nos. 3327 and 3327b), the head and neck of the thigh-bone are of their full natural size, the ankylosis probably being the result of rheumatism; and in these cases, the division of the neck of the thigh-bone could have been easily accomplished; whilst in the other two specimens, Nos. 3,325 and 3,326, the head and neck of the thigh-bone have been completely destroyed, evidently by strumous disease; and in these cases, the operation could not have been performed.

In the Museum of St. Thomas's Hospital, there are eight specimens of bony ankylosis of the hip-joint; and in these, the operation of dividing the neck of the thigh-bone could be performed in five cases, Nos. D 51, D 52, D 53, D 53', and in a new specimen not in catalogue; but in the remaining three specimens, Nos. D 48, D 51', and D 53', the destruction of the head and neck of the thigh-bone has been so considerable as to prevent the possibility of the operation being performed.

As the eight specimens in this old and valuable collection may be taken as fairly representing the condition exhibited in bony ankylosis of the hip-joint, in the different classes of cases in which it occurs, I thought it would be interesting to have drawings made of all the specimens, for the purpose of exhibiting these to the members of the Medical Society, and now have the pleasure of submitting for inspection this

series of drawings, made by Mr. Dalton, an artist of well-known reputation, and for the truthfulness of the representations, the drawings may be compared with the specimens in the Museum.

In the Museum of Guy's Hospital, there are twelve specimens of bony ankylosis of the hip-joint, and in these the operation of dividing the neck of the thigh-bone could be performed in eight cases, Nos. 1318²⁸, 1318³², 1318³³, 1318⁵¹, 1318⁵³, 1318⁵⁵, 1318⁶⁰, 1318⁶⁵, and 1318⁷⁰. But, in the remaining four specimens, Nos. 1318⁴⁰, 1318⁴⁵, 1318⁴⁸, and 1318⁵⁰, the destruction of the head and neck of the thigh-bone has been so considerable as to prevent the possibility of the operation being performed.

In the Museum of St. Bartholomew's Hospital, there are six specimens of bony ankylosis of the hip-joint, and in these the operation of dividing the neck of the thigh-bone could be performed in four cases, Nos. (sub-series) B², B⁴, B⁵, and B⁶; but in the remaining two specimens, Nos. (sub-series) B¹, and another specimen, B⁶¹, not described in catalogue, the destruction of the head and neck of the thigh-bone has been so considerable as to prevent the possibility of the operation being performed.

In the Museum of St. George's Hospital, there are three specimens of bony ankylosis of the hip-joint, and in these the operation of dividing the neck of the thigh-bone could be performed in one case, 3rd Series, Nos. 106 and 107; but in the remaining two specimens (3rd Series, No. 3 and No. 3a), the destruction of the head and neck of the thigh-bone has been so considerable as to prevent the possibility of the operation being performed.

In the Museum of the Royal Free Hospital, there is one specimen of bony ankylosis of the hip-joint, which I have now the opportunity of exhibiting to the Society; and in this case it will be seen that



the division of the neck of the thigh-bone could be accomplished without difficulty, although it is an undoubted example of true bony ankylosis. (See Figure.)

Thus it appears that, out of thirty-four specimens referred to, division of the neck of the thigh-bone could be performed in twenty-one cases.

From the facts shown by the specimens above referred to, with regard to the neck of the thigh-bone, it becomes of great practical importance to be able to diagnose:—1. The class of cases of bony ankylosis of the hip-joint in which the neck of the thigh-bone remains of its normal length; 2. Those in which the neck of the bone is shortened, but remains of sufficient length to admit of the operation being performed; and 3. Those in which the neck has been so far destroyed as to prevent the operation being performed. There can be no doubt that, in a large proportion of cases, this diagnosis can be made with absolute certainty, and must be based upon the nature of the disease, or morbid conditions producing the ankylosis—viz., whether rheumatic, pyæmic, or traumatic inflammation; or whether it is the result of strumous disease of the joint.

Now, in reference to these points, the following are the conclusions at which I have arrived.

1. In rheumatic ankylosis, no destruction of bone ever exists, and the head and neck of the thigh-bone, therefore, always remain of their full natural size.

2. In ankylosis after pyæmic inflammation, more especially in its subacute form, from which the patient frequently recovers, destruction of bone rarely if ever exists, the soft structures only being destroyed.

3. In ankylosis after traumatic inflammation in healthy adults, such as that which occurs after wounds of the joints, and gun-shot wounds in the neighbourhood of the joints, when the joint itself has escaped injury; and in some cases of ankylosis, chiefly from long-retained position, occurs, as a general rule, no destruction of bone even after acute suppurative inflammation, the soft tissues only being involved.

4. In ankylosis after strumous disease of the joint, when arrested in the early stage, without the occurrence of suppuration, or, at least, of abscess bursting externally, there is generally only a superficial caries of the head of the bone; and the destruction being thus limited in extent, the neck of the thigh-bone remains of its natural length, although practically somewhat shortened by being depressed, or sunk into the acetabulum. In this class of cases, however, the operation can generally be performed.

5. In ankylosis following the more severe forms of strumous disease, in which there has been evidence of caries and necrosis of bone, with abscesses bursting externally, and remaining open a considerable time, generally giving exit to small particles of bone, destruction of the head and neck of the thigh-bone, to a greater or less extent, may be diagnosed; and in all such cases, the operation cannot be performed.

Thus it will be seen that, out of the five classes of bony ankylosis above described, in three classes the head and neck of the thigh-bone remain of their full natural proportions. In the fourth class, although some difficulty may occasionally be met with, the operation can generally be performed; and it is only in the fifth class of cases that the operation is decidedly negated.

A CASE OF POISONING BY NITRATE OF SILVER.

By THOMAS SCATTERGOOD, Esq.,

Lecturer on Forensic Medicine at the Leeds School of Medicine.

POISONING by nitrate of silver is of rare occurrence. It is not mentioned by Casper, Tardieu ("Étude"), nor Wormley. Orfila describes the symptoms, but mentions no case. Beck refers to two cases: one related by Metzger, in which the most imminent danger followed from a surgeon letting a piece drop into the throat of a patient; the other taken from Boerhaave, which is also alluded to in Pereira's *Materia Medica*. Dr. A. S. Taylor, in his work on *Poisons*, states that there are at least two cases recorded, and that one of them, the particulars of which are unknown, occurred in 1837-8; but he gives no references. It seems, therefore, desirable to place on record the following case, which occurred in February of the present year.

A medical pupil, while touching a small ulcer beneath the tongue of a child aged 15 months, with a stick of nitrate of silver three-quarters of an inch long, which he held in his fingers by one end wrapped in paper, had the misfortune to let it slip down the child's throat. The following notes of the symptoms were kindly furnished to me by the practitioner in whose surgery the occurrence took place, and who himself saw the child immediately after it. "Almost immediately the child vomited some oily matter, supposed to be cod-liver oil and milk, the oil having been taken shortly after breakfast. When the vomiting had ceased, and within a few minutes of the caustic being swallowed, common salt was given in considerable quantity, after which the child was slightly convulsed. Again vomiting took place, and now the matter ejected had a white curdy appearance, and no doubt was principally chloride of silver. The administration of salt was repeated frequently. Vomiting and convulsions occurred at short intervals till 11.30." [The caustic had been swallowed at 9.30.] "At that time there was a copious liquid stool, containing a quantity of the white curdy substance. At 1 P.M., the child fell into a composed sleep, which lasted for half an hour; after which convulsions returned with increased violence, and continued until 3. The extremities then became cold, the face pinched, the skin clammy, and the pulse almost imperceptible; and child died in violent convulsions at 3 30 P.M., six hours after swallowing the poison."

By the direction of the coroner, I made a *post mortem* examination, which took place twenty-five hours and a half after death.

The child was well nourished, and appeared to have been in good health; cadaveric rigidity was well marked; the expression of countenance was placid. Under the tongue was a small hard swelling, ulcerated on the surface, corresponding to the orifice of the Whartonian duct. There were no marks of nitrate of silver in the mouth, but in the œsophagus two or three small patches of corrosion. The stomach contained two ounces and a half of inodorous fluid. Its mucous membrane was pale in colour, except one small point of ecchymosis, and exhibited a large patch of corrosion, interrupted transversely in several places, but extending from the cardiac opening along the

greater curvature for four inches. It was half an inch wide at the cardiac end, and one and a half inches at the end nearest the pylorus, and was of a brilliant white colour. In the duodenum, and the first twelve inches of the jejunum, the valvulæ conniventes presented a similar corrosion over nearly their whole surface, but of a greyer colour. This was not washed off by a gentle stream of water, nor by rubbing with the finger, by which, however, loose white particles were removed. There were no morbid appearances in the other parts of the alimentary canal, in which about three ounces of fluid were contained. The other viscera were healthy. The heart was empty and contracted. The mucous membrane of the trachea was normal. The contents of the stomach, ilium, and rectum, were separately analysed. In each there was a considerable quantity of chloride of sodium, most in the stomach, and least in the rectum; and of course, therefore, in none of them was there any nitrate of silver. The white particles rubbed off the corroded patches in the stomach, and off the valvulæ conniventes, were proved to be chloride of silver.

It appeared that, although the antidote was administered promptly and in sufficient excess to neutralise the whole of the poison, yet probably much mischief had already been done before the administration commenced; and the solid stick of nitrate of silver, retained by its weight in contact with the most depending part of the stomach, continued to destroy its mucous membrane even while its own upper surface was undergoing decomposition by the chloride of sodium; and meanwhile a sufficient quantity of strong solution of the caustic flowed through the pyloric orifice, to damage the mucous surface of a considerable part of the small intestine before it was reached by the chloride. I think that the free administration of albumen or of milk should be combined in such a case with the use of the chemical antidote.

Since writing the above, my attention has been called to a case of poisoning by solution of nitrate of silver related by Devergie (*Médecine Légale*, vol. iii) on the authority of M. Pommarède. The quantity taken was uncertain; the patient estimated it at 8 grammes (an ounce). The patient was twenty-one years of age. On his admission to hospital, there were insensibility, convulsive movements of the upper limbs and face, forcible closure of the jaw, dilatation and insensibility of the pupils; pulse 70, full and natural. The treatment consisted in the administration of solution of common salt at intervals of a quarter of an hour. Under this treatment, he improved; but the next day the symptoms reappeared, and again improved in the evening, when, after taking some barley-water, he vomited abundantly. In a few days, he was discharged well, having for several days suffered from pains in the epigastrium, which, however, were never very intense.

RECOLLECTIONS OF THE MEDICAL SCHOOL OF BERLIN.

By H. ROSBOROUGH SWANZY, M.B. Dub.,

Ophthalmic Surgeon to the Adelaide Hospital; late Assistant at the late Professor von Graefe's Hospital, Berlin.

As a pendant to Dr. Payne's interesting papers on the Medical School of Vienna, the present contribution may be acceptable to some of the readers of the JOURNAL.

From experience, I am ready to endorse all that Dr. Payne has advanced in favour of Vienna as a place of study for the English student, but fear that some may have been led, by his glowing descriptions, to think that it is the only place worth going to, and the place for everyone to go to. The Vienna School has, indeed, the great charm of being eminently practical; but, when the British student has completed his term of professional education at home, and obtained his diploma, he is, as a general rule, as well versed in practical clinical medicine and surgery as it is possible he should be in the time, with all the advantages of good teachers and abundant opportunities at hand. I imagine, therefore, that when he then visits a foreign school, his primary object is not to obtain additional practical knowledge of these branches—for this might be attained by a longer course of study at home—but rather to gain new modes of thinking on facts already secured, and to study those branches of the profession for which he has had imperfect or no advantages in England.

Berlin supplies these *desiderata* in some subjects better, in others equally well, and, again, in others not so well as Vienna. The student should know what he wants, and go where he can get it best.

In the first place, with regard to clinical medicine: the two great teachers of this subject in Berlin, are Professors Frerichs and Traube. The *clinique* of the former is probably the best attended. It is conducted in one of the theatres of the Charité, three or four times a week,

in the following way. A patient is rolled into the arena from the adjoining ward on a bed, and one of the students, named *Practicanten*, who have put their names on a list for the purpose, is called down. The history of the case is read to him and to the class, and he makes a physical examination of the patient, assisted by the professor, and then forms his diagnosis. The professor then analyses the case in every direction, in a way peculiar to the German school, and which we have never heard equalled by any other teachers, except the lamented Oppolzer; and from this it is that the English student derives benefit; there he finds the most ordinary every-day cases looked at in other aspects than that in which he has been accustomed to regard them, and the diagnosis arrived at by processes of reasoning quite new to him. True, he may not always himself have an opportunity of making a physical examination of the case, nor will he be able to follow its progress from day to day; but this is not what he goes abroad for. From time to time, the same patient will be again brought forward, or his case reported on; and, if death ensue, the autopsy will be conducted by the most accomplished pathologists, perhaps even by Virchow himself. Foreigners may always obtain seats within the arena; and Professor Frerichs and his assistants are most ready to afford them facilities for study.

Professor Traube's *clinique* is conducted more in accordance with our ideas, inasmuch as he goes round his wards with the class. He gives two courses: one intended for the junior students, the other for senior students and foreigners. Traube's speciality is diseases of the chest, and he possesses the most acute powers of auscultation. His ears are habitually stuffed with wadding, in order, it is said, to preserve the membrana tympani in perfect order.

Professor von Langenbeck is the great teacher of clinical surgery at Berlin, and one of the great centres of attraction there. His *clinique*, which is held in the University Hospital, some five minutes' walk from the Charité, is conducted in a similar manner to that of Professor Frerichs. After the case has been analysed and expounded, if an operation be necessary, it is performed. Here it is that the plaister of Paris bandage reigns supreme, any other form of fixed apparatus being rarely seen in Langenbeck's practice. Langenbeck has the reputation, amongst his own countrymen, of having a special liking for Englishmen; and, indeed, we ourselves, and many of our countrymen, have experienced the greatest kindness at his hands. He is always fortunate in the choice of his assistants, who are elected for three or five years respectively; and these appointments are much sought after, as they are likely to lead to a successful career. Englishmen will not find it difficult to cultivate friendly relations with these gentlemen, and so learn much which might otherwise escape them.

The surgical department of the Charité is under the direction of Professor Bardsleben, who succeeded to the post on the resignation of Jüngken, about two years ago. Although not so well known in this country as Langenbeck, yet Bardsleben holds a very high position in the profession in Germany. He is an admirable operator and teacher.

BLEEDING STIGMATA.

By FREDERICK JAMES BROWN, M.D., ROCHESTER.

SEVERAL years since, I attended a man suffering from purpura in connexion with organic disease of the viscera, in whom occurred spurring of blood from one finger and from one leg. I bring the case forward at the present time, so as to add to the general stock of experience in respect of bleeding stigmata.

Edward P., aged 45, died at Chatham on February 17th, 1857. The death was registered as follows:—Pleuritis (right), pericarditis (adherent pericardium), disease of liver and spleen, 2½ years; dropsy, 9 months; purpura hæmorrhagica, 5 months.

The *post mortem* appearances may be briefly stated thus. The pericardium was universally adherent; bony plates were found at its junction with the diaphragm. The cardiac valves were healthy. The right lung was entirely adherent; its structure was carnified. The left lung was healthy. There was serous effusion in the peritoneal cavity. The liver was enlarged; it had a rough granular surface, and yellow colour; its tissue was smooth, but very hard throughout. The bile in the gall-bladder was thin. The spleen was greatly enlarged; its surface was covered with thin lymph. The kidneys were healthy. The left suprarenal capsule was healthy; the right was not examined. The intestines were healthy. The outer surface of the stomach was dotted over with purpuric spots as large as peas. On the inner surface, there were large extravasations, one being three inches square. There was a tablespoonful of blood in the cavity of the stomach.

The patient had intermittent fever in the Baltic, and arrived in England suffering under thoracic inflammation. He went into a London hospital. Purpura appeared in September 1856. Black vesicles appeared in one leg, and under the nail of one finger; one vesicle appeared on the finger at a time, broke, and spurted out capillary streams of blood to the distance of a yard. I was present on one occasion; the streams or jets were as minute as hairs. The leg bled similarly, but I did not witness the spurting from the lower extremity. I do not remember whether it was the right or the left arm and leg, nor do I recollect whether there were any other purpuric spots on the extremities.

CEREBRAL RHEUMATISM.

By WILLIAM ANDERSON, F.R.C.S. Eng.,

Surgical Registrar, St. Thomas's Hospital; late House-Surgeon to the Derbyshire General Infirmary.

SEVERE cerebral complications in the course of acute rheumatism are sufficiently rare to warrant the publication of any instances which may throw light on the pathology of so fearful an addition to a disease of frequent occurrence; to this end are detailed the following well-marked cases.

CASE I.—S. H., aged 29, a labourer, was admitted into the Derbyshire Infirmary under the care of Dr. Ogle, on July 12th, 1869. The patient had been suffering, for a month before admission, from ordinary articular rheumatism, marked by pain and swelling of all the larger joints, febrile disturbance, and profuse acid perspiration. Two days before admission, a tendency to ramble and to get out of bed was noticed; but he was able to answer questions, and to converse rationally when his attention was fixed. On the following day, profuse sour perspiration occurred, and the symptoms passed off; but at night, the dryness and heat of skin returned, followed by the delirium. The joints still continued swollen. The patient was a married man, very sober and regular in his habits; he had always enjoyed good bodily health, but was of a nervous excitable temperament, and had suffered much from headaches. He had had a previous attack of rheumatic fever when nine years of age. His father and brother were both subject to rheumatism. On the morning after admission, he was apparently suffering from an ordinary uncomplicated attack of articular rheumatism, the knees were tender and swollen, and the skin yielded a profuse highly acid perspiration. No peculiarity of manner was noticed, although he was said to have rambled a little in the night. His pulse was regular and strong, although rapid, and the heart-sounds were normal; the tongue was large and white; the bowels open. A prescription containing colchicum with iodide of potassium and bicarbonate of potash was given. In the night, the dryness of skin and delirium were again observed; but, on the following morning, the skin acted well, and no intellectual impairment was present. The affected joints were less swollen and painful. The nocturnal delirium, still very slightly marked, recurred on the 14th, but as usual subsided towards morning, after free perspiration. On the night of the 15th, he was more unmanageable, and got out of bed several times; and, on the next morning, his manner was wild and excitable, not unlike that of a patient in the early stage of delirium tremens. There was, however, no peculiarity about the pupils, and his answers to questions were rational. His skin was dry and covered entirely with a miliary eruption, each vesicle having a strawberry-red areola. No sweating had taken place during the night. His pulse was about 110 per minute, and rather bounding in character; the tongue was still white and moist. A warm bath (100 deg. Fahr.) was ordered. There was great difficulty in inducing him to go into the water; and, shortly after being replaced in bed, he sprang out with the blanket wrapped around him, and, before he could be stopped, ran down the staircase and into the grounds; he was there caught and was brought back into his ward. His struggles were then so violent that forcible restraint became necessary. At 6 P.M., he was delirious, talking in a wild disconnected way, but no longer violent. His face was flushed; the pupils slightly contracted; the features occasionally twitched into a sardonic grin. The skin was remarkably hot and dry; the areolæ of the miliary vesicles were still bright red; the temperature in the axilla was 107 deg. Fahr.; respiration 30 per minute; pulse, full and bounding, 120. The heart's action was violent, but regular, and unaccompanied by any morbid sounds. A small quantity of non-albuminous urine was drawn off by the catheter. This fluid presented no microscopical peculiarity, but was not examined quantitatively for urea, etc. A blister was applied to the nape of the neck, an ice-bag placed on the shaven scalp, and a mixture containing fifteen grains of bromide of potassium prescribed. At 7.20 P.M., the face had become pallid; the features were drawn and the pupils con-

tracted. The skin was intensely hot to the touch, and the areolæ of the vesicles were fading completely away; temperature 110 deg.; pulse, less powerful and more rapid, 136; respiration noisy, 35; insensibility was complete. At 8.10, the face was cadaverous; the pupils were strongly contracted. At 8.20, the pulse was thready and uncountable; temperature 110.3 deg. The areolæ of the vesicles were no longer visible. At 8.30, he died. The pupils dilated widely a few moments before the cessation of the heart's action. At 8.40, the temperature was 111.4 deg.; and at 8.50, it was 109 deg.

Post mortem examination (seventeen hours after death).—The body was purple in the dependent parts and around the neck. Rigor mortis had almost disappeared. The heart was perfectly healthy; the cavities were filled with tarry blood, without clots. The pericardiac fluid was normal in quantity and appearance. The lining membrane of the great arteries was stained deeply. The pleural cavities were normal. The lungs were congested posteriorly; otherwise healthy. The digestive system was healthy, but contained dark fluid blood, which flowed freely on cutting into the organs. The spleen was somewhat enlarged, congested, and pulpy. The genito-urinary system was healthy. The cerebral sinuses and vessels of the membranes were distended with dark blood. The subarachnoid and intraventricular fluid was somewhat augmented in quantity, but clear; it was not examined chemically. The cerebral substance was firm and apparently healthy; the grey matter was well-defined. The blood on microscopical examination presented no peculiarities.

CASE II.—T. S., aged 55, labourer, was admitted into the Derbyshire Infirmary on July 5th, 1869, under the care of Dr. Taylor, suffering from rheumatism of ten days' duration. On admission, pain in the larger joints was complained of, but did not appear to be acute. The articular swelling had subsided. The skin acted profusely, yielding a strongly acid secretion. The tongue was white, and the pulse quick but regular, and of fair power. The heart-sounds were normal. The general appearance of the patient was that of a fairly healthy man. Subsequent inquiry showed absence of any tendency to bodily or mental disturbance. A mixture containing iodide of potassium with carbonate of ammonia in decoction of bark was prescribed. The case progressed favourably until July 9th, when some slight wandering in his talk was observed for the first time; his symptoms were otherwise little altered. The urine was strongly alkaline, deposited phosphate of lime, and displayed very early development of masses of vibriones. The perspiration, at the same time, was profuse and highly acid. On the following morning he was better, and continued to go on well until the evening of the 12th, when, at about 7.30 P.M., after the nurse had been out of the ward for about an hour, he was found muttering inarticulately and evidently quite unconscious. When seen by the House-Surgeon, he was muttering constantly, pulling at the bed-clothes, and from time to time partly rising in the bed to point and gibber at vacancy, limbs and features twitching incessantly, pupils strongly contracted, and face pallid. The skin was dry and of a peculiar biting heat. Temperature in axilla 108.4 deg. Fahr.; pulse 140, bounding; respiration 36. At 8 P.M., his temperature rose to 109.2 deg. The muttering and twitching had given place to complete coma. An attempt was made by means of blankets to stimulate the skin to action, and five grains of calomel with a drop of croton oil were placed on the back of the tongue; no result followed. At 8.25, the temperature was 110.5. The pulse had now lost its bounding character and was very feeble. At 8.45, temperature 111.1 deg.; pulse 128, thready. At 9.10, he died. The results of the necropsy were, with the exception of a much higher degree of congestion of lungs posteriorly and a deeper straining of the arterial coats, in no respect different from those shown in the preceding case. The heart was quite healthy.

CASE III.—G. O., aged 31, a gardener, was admitted into the Derby Infirmary, under the care of Dr. Taylor, on January 3rd, 1870, suffering from acute rheumatism. His illness commenced seven days before admission, with pain and slight swelling in the ankles and knees, afterwards implicating in succession the shoulders, hips, elbows, and wrists. There had been free acid perspiration, but the articular pain and effusion were never well marked. The patient had never before the present attack had a day's illness in his life, and had never displayed any tendency to cerebral disturbance. On admission, he appeared to be suffering very slightly; his general aspect was that of a remarkably stout and robust man. The joints were not swollen or very tender on pressure; most sensitiveness was present in the shoulders. The skin was perspiring profusely; the secretion was very sour in odour; the pulse was strong and regular, but rather hard; the heart-sounds were normal. The tongue was white and moist. The bowels had recently been opened freely. On the following morning there was, on superficial examination, little change in his symptoms. His manner was cheerful, perhaps unnaturally so; his replies were ready and intelligent. He

professed to be quite free from pain, and thought he was improving rapidly. The pulse was, however, found to be quickened and rather harder; and, on auscultation, a very faint rubbing was heard a little above and to the right of the heart's apex. The skin was acting very freely. The temperature in the axilla was 100 deg. Fahr. A blister was applied over the heart, and a mixture containing bicarbonate of potash and iodide of potassium was ordered. The bowels were acted upon by means of compound senna draught. No special change in the symptoms was noticed until about 5.45 P.M., when it was observed that his manner was strange and excited, and that his sentences were disconnected and incoherent. Within ten minutes, he became completely unconscious, and was then found with flushed face and strongly contracted pupils, the lips pouting and rubbing incessantly over the teeth, and the whole of the voluntary muscles twitching constantly. His skin was very hot, but moist, as if from a recent perspiration; the moisture, however, rapidly disappeared, and the skin had evidently ceased to act. The temperature in the axilla was 106 deg.; the pulse rapid, 120, full and bounding; respiration was quick, laboured, and unequal. The head was shaved, and cold applied to the scalp; sinapisms were placed upon the calves and on the nape of the neck, and additional blankets were piled upon him. The temperature fell slightly up to about 7.30 P.M., when the muscular movements terminated. At 8 P.M. the heat of skin had reached 108 deg.; this point it maintained until about 9.45, when it began again to rise, and at the same time the respiration became stertorous, and the face assumed gradually a death-like pallor. The skin was quite dry and very hot; the pupils were still contracted, the pulse growing feeble and more rapid. At 10.15, the temperature was 108.3; the pulse 150. At 10.50, the temperature was 108.4. At 11.45, the temperature was 109.4; the pulse thready and uncountable. At 12.25, he died; the temperature was 110 deg.; and at 12.55, it was 108. Rigor mortis set in about three hours after death. At the necropsy, fifteen hours after death, the pericardium, both visceral and parietal, was found minutely injected; the quantity of fluid was very small. There was no endocardial mischief. The other appearances were exactly as in the first case.

REMARKS.—The points for observation in the foregoing cases appear to be: (1) the extraordinary rise in temperature; (2) the rapidly fatal termination; (3) the absence of characteristic *post mortem* appearances, the condition of tissues and organs being similar to that seen in typhus fever.

Both the etiology and pathology of the affection are obscure. Numerous predisposing and exciting causes have been suggested, but each has been negatived as fresh cases have come under observation.

As predisposing causes, abnormal nervous susceptibility and constitutional debility have been advanced. Abnormal nervous susceptibility, hereditary or acquired, has been supposed to act as a combustible material to which the rheumatic poison plays the part of a lighted match; but in Cases II and III the most careful inquiry failed to elicit any history of such a condition. Debility, again, cannot be an essential element in the development of the complication, as in Cases I and III the patients were both powerful men, and showed no sign of prostration up to the very moment of manifestation of the symptoms; nor was the state of the other patient, T. S., nearly so feeble as that daily observed in cases of rheumatic fever. These facts, of course, do not show that the influences named may not be powerful predisponents in some instances, but the existence of others, still to be detected, is clearly indicated.

As an exciting cause, metastasis, in consequence of sudden retrocession of the disease from the tissues which constitute its usual points of attack, has been advanced; but that this is the cause has been abundantly contradicted by the reports of several cases; there is, however, no doubt that in some instances, as in that of G. O., the articular pain and swelling have completely subsided before the appearance of the cerebral symptoms, while the presence of lactic acid in the perspiration proves that the virus is yet latent; where this occurs, the blood retains a powerful enemy which may at any time turn its attack upon vital organs, unless speedy elimination by natural channels be effected.

Attempts have been made to establish a connexion between the cerebral phenomena and acute endocarditis or pericarditis, and there is no doubt that heart-disease is frequently present in these cases; but that the association is constant is disproved by the absence of any abnormality in the circulatory organs in the two first instances, H. and S.

The morbid appearances, as already mentioned, are not characteristic. The most constant and noticeable phenomenon is the dark non-coagulable condition of the blood, but the microscopical character of the fluid is natural, and a series of chemical investigations are yet required to detect the presence of a definite poisonous agent. Rapid contamination of the blood by accumulation or speedy new development of the *materies morbi* of rheumatism, may probably be the origin of the evil.

In each of the preceding cases, cessation of the acid perspiration and unusual dryness of skin immediately preceded the attack, although cutaneous action had previously been free; in the first case, the inflammatory miliary eruption pointed to an attempt to expel some morbid material by that outlet, and the evident relation between the checked transpiration and development of delirium was significant, as was the complete disappearance of the cerebral symptoms on the restoration of the acid cutaneous secretion.

It is probable that the poison, when it has reached a state of sufficient concentration, so vitiates the general circulation that the functions of the whole vital economy are more or less checked or perverted; secretion, excretion, and nutrition are, to some extent, in abeyance, while waste goes on apace and adds fuel to the fire; the nervous system (we have no reason to assume that the brain is alone attacked), as the most sensitive part, manifests its functional disorder the most strikingly, and gives rise by its influence on the nutritive changes in the tissues to the marvellous elevation of temperature, as well as to the high nervous and vascular excitement of the first stage, masking while increasing the concurrent mischief going on elsewhere, and leading, finally, to rapid death by coma. An effect of the rapid destruction of tissue-elements which directly leads to the increased heat, is displayed in the early supervention and disappearance of rigor mortis. The slight increase in the quantity of intraventricular and subarachnoid fluid is not sufficient to explain the symptoms, and is, perhaps, merely secondary. Analysis of the effusion shows that uræmic poisoning is not present.

As regards the treatment of this condition, it is to be feared that when once the rapid rise of temperature sets in, all efforts will fail to check the fearfully swift course of destruction, but in most cases there is a premonitory stage of more or less marked delirium, although this, as in the case of G. O., may be brief and scarcely noticeable. In other instances, an unnatural nervous excitement, resembling the early symptoms of delirium tremens, may warn us of the advancing mischief. At such a period, it is probable that remedies may have the power to avert the threatened evil. The great indication appears to be the elimination, as speedily as possible, of the poison from the system; and with this view, Trousseau advises sinapisms or blisters to the joints, to encourage the articular manifestations of the disease if these have abated. Warm baths, wet packing, purgatives, and other methods may be suggested to further the same end.

Opium has been recommended by Dr. Todd, but, except through its action upon the skin, it appears doubtful whether the addition to the blood of a drug which itself tends to produce a condition of coma, can lead to a beneficial result in a disease the symptoms of which progress to a similar termination. Hydrate of chloral, as suggested by Dr. Murchison, would be a safer remedy; but in the employment of any form of sedative, we cannot expect very happy results until the cause of the condition has been removed, especially when we consider the probability that the nervous phenomena form but one link in the chain of symptoms, and that the nervous system may but share the disease with other vital parts of the organism.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE XIII.—*Friday, March 17th.*

Cetacea are divided into two suborders: those possessing true teeth, the *Odontoceti*; and those having baleen or whalebone, the *Mysticoceti*.

The *Odontoceti* or Toothed Whales are further divided into two principal families—the *Delphinidæ* and the *Physeteridæ*. The common Dolphin is homodont and monophyodont, having a single set of numerous conical slightly recurved teeth, with enamelled crowns, adapted for catching and holding fish. These teeth are not set in distinct alveoli, but in an imperfectly divided groove. In the Porpoise, the crowns of the teeth are not conical, but expanded and compressed laterally. In the Grampus (*Orca*), the teeth are fewer in number, and are much larger, being used for catching and killing larger animals than those on which the Porpoise and Dolphin feed.

In the Blackfish (*Globiocephalus*), the teeth are few in number and small. This genus, of which there are many species, is very common in the seas of the north of Scotland. The food consists almost entirely of cephalopods. The teeth are very simple, and are about twelve in number on each side, confined to the fore part of the jaw. They have a great tendency to disappear in old age. In one species of *Globio-*

cephalus, there are no teeth in the upper, and only three small ones on each side of the front part of the lower jaw.

The most remarkable modification among the *Delphinidæ* is presented by the Narwhal (*Monodon*). This animal inhabits the Arctic seas. At a very early stage, it is stated to have a small row of rudimentary teeth, which disappear, leaving none in the lower jaw, and only a pair in the upper. In the female Narwhal, these two teeth remain in a horizontal position, deeply imbedded in the maxilla, and having the pulp-cavity completely closed by osteodentine. In the male, one of these grows to a great length, and is marked by a spiral track directed towards the left; in some cases, the whole tooth undergoes a spiral curvature in the same direction. It was the tooth of this animal which gave rise to the old idea of the horn of the unicorn. The pulp-cavity is persistent nearly to the front of the tooth. The tooth is almost entirely composed of dentine, without any coating of enamel; the ivory is of good quality, but never very great in quantity. An aborted tooth in the Narwhal can always be distinguished from a growing one by the state of the pulp-cavity, which in the former is filled with osteodentine, while in the latter it remains open. There seems to be no good evidence of the right tooth ever being developed and the left remaining rudimentary. It appears, indeed, that it is invariably the left tooth which becomes developed to so great a size. It occasionally, but rarely, happens that both the teeth are developed; in such cases, the spiral twist runs in the same direction in both teeth; and hence some have supposed that the specimens were not genuine. It is plain, however, that a full sized tusk could not be fitted into the small alveolus of an aborted tooth. This arrangement of the spiral twist in the double-toothed Narwhals is an example of want of bilateral symmetry, rare in the construction of vertebrated animals, though not uncommon in the heads of the *Cetacea*.

The Pontoporia, a small Dolphin found near Buenos Ayres, has a long beak, and two hundred and twenty teeth in all, the largest number known in any Mammal. The teeth have a broad cingulum round the base. The fresh-water Dolphin of the Ganges has a very long compressed snout and many teeth. Anteriorly, the teeth are very long and pointed; posteriorly, they are much compressed. In this animal, alone among the *Cetacea*, there is an indication of bifurcation in some of the roots.

The *Physeteridæ* have next to be considered. In the *Physeter* or *Sperm-Whale*, there are no functional teeth in the upper jaw; but rudimentary teeth are found imbedded in the gums. The lower jaw is long and narrow, and has about twenty-five teeth on each side; the two rows nearly approach each other. The teeth are loosely set in a long groove, and are almost entirely held in place by the gum. In the young animal, they are pointed; but, as age advances, they become rounded by wearing against the gum of the upper jaw. The teeth near the middle of the series are the largest; the anterior and posterior smallest. The pulp-cavity becomes gradually filled with osteodentine; there is no enamel, but this substance is present in the Grampus and Dolphin. The teeth are largely made up of dentine, with a layer of cement often half an inch thick. Stalactitic masses of osteodentine are sometimes found lying loose in the pulp, as if from partial ossification. The animal lives to a great extent on cephalopods.

In some of the Southern seas there is occasionally found a small Whale about ten feet long, having the same characters in miniature as the *Sperm-Whale*.

All the other Whales of the family *Physeteridæ* have very few functional teeth. One of the best known is the *Hyperödon* or Bottle-nosed Whale of our coast, which attains the length of twenty-five feet or more. In the upper jaw, there are no teeth; in the lower, generally only two in front, quite concealed by the gum. In a foetal *Hyperödon*, Eschricht found twelve or thirteen minute teeth on each side, in each jaw. The *Hyperödon* has a number of minute horny tubercles scattered over the palate—as if forming a transitional stage to the Whalebone-Whales.

About a dozen existing species, and many fossil, have been classed together under the name *Ziphius*. They have no teeth in the upper jaw, and only one (in one species, two) pair of developed teeth in the lower, which are larger in the male than in the female. Rudimentary teeth have also been found concealed in the gum. The developed teeth differ in position. In the *Ziphius Indicus*, they are placed in front; in some species, they lie half-way between the anterior and posterior parts of the jaw. The tooth projects like a tusk, and works against a groove in the upper lip, surrounded by a hard substance. The structure of these teeth is curious; they consist in a great measure of cement, with a little cap of dentine at the top, having its small pulp-cavity—the main pulp-cavity being filled with osteodentine. In the *Ziphius Layardii*, the teeth, which are placed in the middle of the

lower jaw on each side, are each a foot long, and are curved backwards and inwards, so as to almost meet over the upper jaw. At the top of each tooth is a papilla-like process covered with enamel—probably the original apex of the tooth. The pulp-cavity is quite closed.

The Whalebone Whales consist of three genera—*Balæna*, *Balænoptera* or Fin-Whale, and *Megaptera*. The former are called "Right-Whales", the best known being the Greenland Whale (*Balæna mysticetus*), which yields the largest quantity and finest whalebone of commerce. The whalebone or baleen of the *Balænoptera* and *Megaptera* is smaller and of coarser quality, and hence has little market value. All these animals have, when in the foetal condition, numerous minute calcified teeth lying in the dental groove of both upper and lower jaws. They were discovered by Geoffroy St. Hilaire in the Greenland Whale, whose observations were confirmed and extended to other genera by Eschricht. They are best developed about the middle of foetal life, after which period they are absorbed, and no trace of them remains at the time of birth.

The whalebone or baleen, which takes the place of teeth in all these animals, grows from the two sides of the palate. Its structure has been frequently described; but the earliest account by Hunter, and the most recent by Professor Turner of Edinburgh, are the most instructive. It consists of a series of flattened horny plates, between three and four hundred in number, placed transversely to the long axis of the palate, at intervals each of about a quarter of an inch. Each plate or blade is somewhat triangular in form, with the base attached to the palate, and the apex hanging downwards. The outer edge is hard and smooth, but the inner edge and apex frays out into long bristly fibres; so that the roof of the Whale's mouth looks as if covered with hair, as described by Aristotle. The horny blades grow from a dense fibrous and highly vascular matrix, which covers the palatal surface of the maxilla, and which sends out lamellar processes, one of which penetrates the base of each blade. Moreover, the free edge of these processes is covered with very long vascular thread-like papillæ, one of which forms the central axis of each of the hair-like epidermic fibres of which the blade is mainly composed. A transverse section of fresh whalebone shows that it is made up of numbers of these soft vascular papillæ, circular in outline, each surrounded by concentrically arranged epidermic cells; the whole bound together by other epidermic cells, which constitute the smooth (so-called "enamel") surface of the blade, which, disintegrating at the free end, allows the individual fibres to become free and assume the fan-like appearance before spoken of. They differ from hairs in not being formed in depressed follicles in the enderon, but rather resemble the fibres composing the horn of the Rhinoceros. Whalebone is, in fact, composed of nothing more than modified papillæ of the buccal mucous membrane, with excessive and cornified epithelial development. Its function is to strain the water from the small marine molluscs and crustaceans or fish upon which the Whales subsist. In feeding, they fill the immense mouth with water containing shoals of these small creatures; and then, on closing the jaws and raising the tongue, so as to diminish the cavity of the mouth, the water rushes out through the narrow intervals between the whalebone blades, and escapes through the lips, leaving the living prey to be swallowed.

CLINICAL MEMORANDA.

FACTITIOUS URTICARIA.

IN the case related by me, the liability to the formation of the wheals described gradually diminished *pari passu* with the re-establishment of the patient's health; and, when the last experiment was made, they could not be induced by any endurable degree of friction. There was still, however, a mark like Trousseau's *tache cérébrale* after drawing the finger-nail along the skin. The fact that factitious urticaria is always producible in some persons, as related by Dr. Savage with respect to himself, is most interesting. This sometimes runs in families.

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FLAYING A LIMB.

A SIMILAR accident to that recorded at the meeting of the Pathological Society of London on the 18th ult., by Mr. Lawson, as having taken place in a patient brought to the Middlesex Hospital, occurred in my practice in May 1870. A strong robust lad, aged 17, was employed at a woollen mill in taking off "flock" or waste wool from the rollers of a machine used for raising the nap of cloth—commonly called a "raising-gig"—when his right arm was caught between the rollers, and the

whole of the skin from above the elbow to the wrist was stripped down, in the same way that a stocking might be stripped off a leg. In this case the circumstances appeared favourable for an attempt being made to save the limb; the general health of the lad being good, and the arm necessary for enabling him to obtain a livelihood. Consequently, the skin was replaced as accurately as possible, and retained *in situ* by sutures and a well-adjusted bandage; at the same time cotton-wool was freely applied to maintain as much as possible the heat of the limb. At the end of six days it was quite evident that any further attempt to save the limb was useless, for the whole of the skin had assumed a sloughy appearance, and suppuration was so profuse that the patient's strength was rapidly giving way. I then amputated the arm about three inches above the elbow, and the boy made a good recovery.

This case seems to show how difficult, even under favourable circumstances, it is to get the skin engrafted again when peeled off so entirely and to so large an extent from a limb.

Kendal, May 1871.

SAMUEL CLARKE NOBLE.

TRACHEOTOMY IN CROUP.

EDWARD W., aged 7 years, had been slightly ailing for a week with a cough. I was called to see him on April 2nd, at 8 A.M. It appeared that, at 6 A.M., he had had a suffocative attack, which made his parents think he was dying. On my first seeing him, he seemed to be suffering from some obstruction in the trachea; the dyspnoea was very urgent, causing him to toss about constantly; the respirations were very frequent; slight pain was referred to the windpipe. Percussion and auscultation failed to account for the symptoms. There was no patch of exudation on either tonsil, the whole pharynx being quite clear. There was no dysphagia, nor history of a foreign body having been swallowed, or "gone the wrong way." The voice was good, not croupy, though the sound produced by the breathing resembled exactly that heard in croup cases; the sound of the cough was clear. There was slight dusiness of his countenance.

I gave him repeated small doses of ipecacuanha wine, and he became much more comfortable during the day. He continued so until the evening of the 3rd, when he was much worse, and was becoming gradually quite asphyxiated; the lips, nails, and body generally were rapidly changing colour, and his restlessness was extreme. Tracheotomy was at once recommended to his parents, who at first objected; but, seeing the rapid change taking place, they at length assented to it, if only to give their child a chance of life.

Chloroform was administered; and, on my making the opening into the trachea, immediately a tubular piece of membrane, three quarters of an inch long, evidently a cast of the trachea, was very forcibly extruded through the aperture, and fell on to the floor. When the dyspnoea, consequent on the presence of the tube, had subsided, the improvement in the boy's condition was very obvious, and in less than an hour he was smiling, and writing on his slate; though, before the operation, his condition had been most pitiable to behold. There had been no albumen in his urine. The tube remained until the 10th, when, on its removal, he seemed to be quite well. No more pieces of lymph have been coughed up. The extruded piece was not examined microscopically.

Sir T. Watson mentions, in his fourth edition, a similar case, which, however, terminated fatally from the re-formation of a tube of lymph.

THOMAS SAVAGE, F.R.C.S. Exam., M.D.

Birmingham, May 13th, 1871.

RARE LUXATION OF THE ANKLE-JOINT.

THREE or four years ago, I saw a case at St. Thomas's Hospital apparently almost exactly like that narrated by Dr. Eames in last week's JOURNAL. The foot had been violently twisted inwards, and the sole faced the opposite limb. The upper surface of the astragalus was not entirely disentangled from the external malleolus; but a portion of it, together with the upper and outer edge of the bone, could be distinctly felt just below the point of the fibula. Neither of the malleoli was broken. The dislocation was reduced by steady though somewhat powerful traction, and the injury was rapidly recovered from. The surgeon of the case, not having seen the patient until a day or two after the reduction, was at first inclined to be somewhat sceptical as to a real dislocation without fracture having taken place, only that it was confirmed by the mouth of two or three witnesses. So that Dr. Eames is undoubtedly right in calling the accident in question a rare luxation.

FREDERICK POLLARD, M.B. Lond.,

Resident Medical Officer to the St. Pancras and Northern Dispensary.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

THE MIDDLESEX HOSPITAL.

CASE OF OXALIC ACID POISONING.

(Under the care of Dr. GOODFELLOW.)

THE notes have been supplied by Mr. Lucas, Resident Medical Officer.

W. C. A., a leather cutter, aged 54, took, at 9 A.M. on April 27th, a teaspoonful of oxalic acid dissolved in tea, in mistake for carbonate of soda, which was contained in packets of the same shape. He discovered the accident almost directly, and came to the hospital.

On admission, he presented the usual symptoms of poisoning by this acid, but to a slight degree. There were pain at the epigastrium, dryness of the mouth, with dryness and pain on swallowing of the throat. The tongue was of a pale grey colour. There were symptoms of slight collapse; the surface of the body being moist and cold; the temperature in the axilla, 97.8; and the pulse small. The pupils were natural, and the respiration also. He was ordered chalk mixture *ad libitum*, and half an ounce of olive oil immediately. At the same time an enema of six ounces of brandy was given; and linseed-meal poultices were applied to the abdomen.

On the following day, the symptoms were mostly gone; there was little pain on swallowing; the tongue was moist, and not preternaturally red; the bowels had been opened, and were noted to have been composed chiefly of chalk. His pulse was now 72.

On the 30th, the symptoms had all disappeared.

On May 6th, the day of his discharge, he was given a mixture containing three minim doses of cajeput oil for flatulence, to which he appears to have become subject. The immediate treatment by antidotes had prevented the occurrence of the more serious symptoms which usually result from so large a quantity of oxalic acid as had been taken by the patient.

SUPPURATION OF KNEE-JOINT: TYPHOID FEVER: PYÆMIA: DEATH.

(Under the care of Mr. NUNN.)

WILLIAM S., aged 36, one month before admission into the hospital, while carrying a sack of coals, slipped down, and the sack fell on his right knee. He worked with difficulty for a few days afterwards; but at length suppuration occurred in the joint, for which a small incision was made on the outer side. On admission, some discharge was escaping from the opening; there was eversion of the foot; and, on moving the limb, distinct grating was felt in the knee-joint, which was dislocated backwards and outwards to a slight extent. Incisions were made to allow the free escape of the pus, and a back-splint was applied. Great improvement took place; the joint became rather firmly ankylosed; and in eleven weeks from his admission he was able to move about on crutches, with his leg in a gum and starch splint. On December 17th, however, he was seized with the symptoms premonitory of fever, which proved to be typhoid. There was considerable diarrhoea; and successive batches of characteristic but scanty spots appeared on the abdomen and chest. This ran its course; but towards the end of the period suppuration recurred in and about the joint, and fresh incisions were required. While convalescent from the fever, on the 14th January he was seized with shivering, headache, vomiting, and clammy perspirations; soon his breathing became difficult and laboured, and a scanty unhealthy discharge took place from the openings about the knee-joint. On January 21st erysipelas commenced, and extended upward from the knee along the thigh; and on January 24th he died.

At the *post mortem* examination, Mr. Morris found the right knee-joint completely disorganised. No trace of normal synovial membrane remained. The crucial ligaments were soft and easily broken down; the semilunar cartilages had been destroyed, and the articular cartilage remained only in traces, and was of a soft putty-like consistence, easily separated from the bones, which were softened for some distance below the articulating surfaces. In the right femoral vein was a small firm clot three-fourths of an inch in length, with an irregular upper extremity, but having the lower end quite smooth and level. The pleura of the right lung was much thickened by a layer of recent lymph—this was especially the case over a portion of the lower lobe, in which there was an abscess, with a distinct lining membrane over three parts of its wall. The whole lobe was in an advanced pneumonic condition. In the lower third of the ileum the mucous membrane was markedly

congested; the glands of Peyer, especially the agminated glands, were prominent, and of a dark purplish colour. No sign of ulceration or cicatrisation was anywhere evident. The upper portion of the ileum was quite normal in appearance. The liver was large and fatty, but not congested, and the spleen and kidneys were congested and soft.

REMARKS.—This case gives favour to the view that, in some instances of recovery from typhoid fever, no ulceration of Peyer's patches takes place, but that the typhoid deposit is removed by absorption. Had the patient died from the fever, and not from the pyæmia subsequently set up, no doubt ulceration would have been found.

SOUTH STAFFORDSHIRE GENERAL HOSPITAL, WOLVERHAMPTON.

A YEAR'S CASES OF LITHOTOMY.

(Under the care of Mr. VINCENT JACKSON and Mr. NEWNHAM.)

OF the examples of stone in the bladder admitted into the hospital during the year 1870, the nine following cases were all successively and successfully operated upon by lithotomy.

CASE I.—William Gill, aged 14, was admitted under Mr. Vincent Jackson's care with a simple fracture of the middle of the left femur. A month after admission, the patient complained of pain during and after micturition; and a sound was introduced into the bladder by the house-surgeon, and a hard stone detected. The symptoms had lasted three years. On March 24th, lateral lithotomy was performed under chloroform. The bladder was not previously injected. The staff used was grooved in the convexity, and held pressing against the symphysis pubis, the handle being directed a trifle to the right side. The left leg and thigh, encased in a starched apparatus, were maintained in a raised position; the hip-joint being flexed, the whole limb was abducted by one assistant, whilst another held the right limb in such a way that between them the perineum was fully exposed. The stone was removed with the scoop and the forefinger of the left hand; it weighed 640 grains, and consisted of oxalate of lime. Free hæmorrhage occurred. A tube with plugging around it was passed into the bladder through the wound, and kept there twenty-four hours. On April 7th, the patient passed urine through the penis for the first time. On June 7th, he was discharged cured.

CASE II.—Thomas Larkson, a healthy boy aged 6, was admitted April 11th under Mr. Newnham, with stone in the bladder. The duration of the symptoms was uncertain. On April 28th, lateral lithotomy was performed under chloroform. The bladder was not injected. The staff used was grooved laterally, the patient being tied up. The stone was removed with a pair of forceps; it weighed 420 grains, and consisted of uric acid, with a slight phosphatic coating in patches. The tube was retained in the bladder for twenty-four hours. On June 7th, he was discharged cured.

CASE III.—William Lee, aged 7, was admitted on May 9th under Mr. Vincent Jackson, with a small stone in the bladder. On May 19th, lateral lithotomy was performed under chloroform. The bladder was not injected. The staff was grooved on the convexity, and, as it passed along the urethra, the calculus was felt to be just outside the neck of the bladder. The patient was not tied up, but the lower extremities were maintained in the lithotomy position by assistants. The stone was removed with the scoop; it weighed 10 grains, and was of the uric acid variety. On June 28th, the boy was discharged cured.

CASE IV.—Josiah Jaques, aged 2½, was admitted June 7th under Mr. Vincent Jackson, with stone in the bladder. The duration of the symptoms was uncertain. On June 16th, lateral lithotomy was performed under chloroform. The bladder was not injected. The staff was grooved on the convexity. The patient was not tied up, but held by assistants. The stone was removed with the scoop and forefinger of the left hand; it weighed 205 grains, and consisted of lithic acid, with a partial phosphatic coating. The little patient was permitted to remain on the table until all oozing ceased; and, to make sure that no clots were between the sides of the wound, a stream of cold water was sent in until it returned colourless. A small sized Holt's winged catheter was now passed along the urethra into the bladder, and left there; and to the free end some tubing was fixed, to conduct the urine into a vessel containing water under his bed. Both legs and thighs were tied together, and he was ordered to be kept continuously lying on the right side. At 8 P.M., urine had leaked through the elastic tubing to the sheet; at first it was a little tinged with blood, but became quite clear. A dose of five minims of tincture of opium was soon followed by sound sleep. On June 17th, a stream of urine was found trickling from the wound. The catheter was removed; the portion in the bladder was covered with muco-pus. On injecting water through the

instrument and the clastic tube, both were found quite patent. The patient was kept on the right side, with the legs and thighs tied together. On June 23rd, urine passed *per urethram*. On July 5th, he was discharged cured.

CASE V.—Job Butler, aged 4, was admitted August 4th, under Mr. Newnham, with stone in the bladder. The duration of the symptoms was uncertain. On August 23rd, lateral lithotomy was performed under chloroform. The bladder was not injected. The staff was grooved laterally, and the patient tied up. The stone was removed with the forefinger of the left hand; its weight was nine grains; it was of the uric acid variety; no tube was used. On September 25th, he was discharged cured.

CASE VI.—George Wedge, aged 8, was admitted September 8th. A few days before admission he was sounded by Dr. Hawthorne of Oaken, and, a stone being detected, he was sent to the hospital and placed under the care of Mr. Vincent Jackson. The symptoms had been present for an uncertain time; they were very severe. The boy had great and urgent desire to micturate every twenty minutes, both day and night, accompanied with much straining and considerable prolapse of the rectum. On September 15th, lateral lithotomy, under chloroform, was performed, as in the other cases. The weight of the stone was 128 grains; it was phosphatic. No tube was used. The legs and thighs were tied together after operation, and kept so, and the patient was maintained on his right side for three weeks. On September 20th, the urine passed by the penis. On November 14th, he was discharged cured.

CASE VII.—Thomas Haslick, aged 7, was admitted under Mr. Newnham with stone in the bladder. The duration of the symptoms was uncertain. On October 6th, lateral lithotomy was performed, under chloroform, as before. The stone was removed with forceps; it weighed 20 grains, and consisted of uric acid. On October 17th, orchitis of the left testicle appeared. On November 15th, he was discharged cured.

CASE VIII.—John Briggs, aged 5, was admitted November 2th, under Mr. Vincent Jackson. Two years previously, the bladder was sounded by a medical practitioner, and the presence of a calculus detected; but the father would not sanction an operation. Latterly, the symptoms had much increased in severity, and the child was brought by its parent to the hospital. Micturition was very frequent, and was only performed when the little fellow was lying upon his face; and on each occasion there was very extensive rectal prolapse. The prepuce was much more elongated than usual in a bad stone case. At night there was total incontinence. The patient was not ill-nourished, and the general health was reported to be good. On November 17th, lateral lithotomy was performed, under chloroform, as in the other cases. The stone was easily caught and removed with the forceps; it weighed 186 grains, and consisted of uric acid. No tube was used. On November 24th, urine first passed *per urethram*. On December 19th, he was discharged cured.

CASE IX.—Henry Parson, a very delicate-looking child, with a large head and rickety extremities, aged 2, was admitted under Mr. Vincent Jackson. Fifteen months previously he was brought to Mr. Jackson's out-patient room with symptoms of stone, but none was detected on careful sounding. The prepuce, being long and adherent to the glans penis, was removed. On November 10th, he was brought to the hospital with a return of the symptoms. He was again sounded, and a small calculus was struck. On November 17th, lateral lithotomy was performed, under chloroform, as before. The weight of the stone was 3 grains; it was of the uric acid variety. On November 23rd, urine first passed *per urethram*. On December 3rd, orchitis of the left testicle set in. On January 3rd, 1871, he was discharged cured.

LIVERPOOL INFIRMARY FOR CHILDREN.

CASES OF BELLADONNA POISONING TREATED WITH OPIUM : RECOVERY.

(Under the care of Dr. OXLEY.)

ALEXANDRA J., aged 7, was brought to the hospital at six o'clock on the morning of April 23rd, by her mother, who stated that an elder sister had given her by mistake a teaspoonful of a bottle containing poison, at ten o'clock on the preceding night. The bottle and prescription were produced, and the poison was found to be belladonna liniment, one ounce of which contains one drachm of powdered belladonna root. The child was immediately taken to a druggist, who ordered her "to be kept awake for three hours", and said "she would then be all right". But, as she became gradually much worse, she was brought to hospital. The following were found to be the symptoms on admission. She had violent delirium, with occasional fits of laughter, catching at imaginary objects with her hands, and continual agitation of the

body; the pulse very rapid, weak, and intermittent. The pupils were widely dilated, merely a ring of iris being visible; the eyes were insensible to light; the conjunctivæ were congested; the tongue was thickly coated; the mouth and fauces parched; the speech was indistinct. An emetic containing ten grains of sulphate of zinc was immediately administered, and ordered to be repeated every twenty minutes till vomiting occurred. The contents of the stomach were rejected after the second dose at 7½ A.M. A draught containing seven minims of tincture of opium was given, and was repeated at 9 and 11 P.M. At 1 P.M., the opium was repeated, the dose being increased to ten minims. Half-an-hour afterwards she was quieter, and the pupils were perceptibly smaller. At 4 P.M., the same dose of opium was repeated. At six o'clock she fell asleep, and slept till 8½ P.M., when the opium was repeated; the pupils being still very widely dilated, and the other symptoms but slightly improved. In a short time afterwards she vomited. At 9½ P.M. she fell asleep, and, with an interval of one hour and a half, during which she was awake and partially conscious, slept till morning, when she awoke perfectly sensible and ate a hearty meal, the pupils being still dilated slightly beyond their normal size. On April 28th, she left the hospital perfectly well.

MATER MISERICORDIÆ HOSPITAL, DUBLIN.

CASE OF CHOREA.

(Under the care of Dr. HAYDEN.)

FOR the notes of this case we are indebted to Mr. Richard Ryan.

Anne Duffy, aged 12, was admitted on February 4th, suffering from chorea. About two months before admission, she was much frightened by a strange man presenting himself at the door of her father's house during the night. In a couple of days, her parents remarked a peculiar tremor of one hand, which was soon succeeded by uncontrollable motions of the other, with irregular twitchings of the muscles of the face. These uncontrollable motions increased; she upset the breakfast table, breaking the ware, and then her parents sought medical advice. Previously to this affection, she had enjoyed good health.

On admission, she presented the following appearances. Her features were thin and pale; her eyes bright; the sclerotics bluish-white; the extremities were cold and congested; the circulation was weak; the tongue moist and pale. She could hardly stand or support the head erect, and nearly all the voluntary muscles, especially those of the upper extremities and face, were continually performing the most ludicrous motions. She could not lie steadily in bed; and, from the friction of prominent parts against the bedding, excoriations were imminent. She could not hold her hand steady for an instant, nor grasp any object without immediately letting it fall. Her features were momentarily assuming expressions different from the ordinary one. If asked to put out the tongue, she hesitated as if making an effort, then suddenly thrust it forth, and as suddenly retracted it. Her eyes rolled about at intervals. Her articulation was imperfect, and a sentence, apparently cut short by spasmodic contraction of the diaphragm, was only completed by an inspiratory effort. She was disposed to be merry, and even boisterous, laughing in a peculiar crowing manner. All these phenomena were aggravated when she was conscious of being observed. Though not so severe at night, they interfered with sleep. There was no cardiac murmur.

The history, sex, and age; the purposeless clonic contractions of the voluntary muscles; the ludicrous play of the features, so different from the ordinary indications of passion or emotion; were quite characteristic of chorea of an aggravated type. The prognosis could not be very favourable, considering the severity of the symptoms and the constitutional debility. For the same reasons, a tonic plan of treatment was adopted.

February 7th.—The bowels having been cleared by a calomel and jalap purge, and an easily digestible nutritious diet supplied, she was put on doses of one-twentieth of a grain of strychnia in mixture three times a day; and hydrate of chloral at night, to secure sleep. This treatment was continued till slight rigidity of the muscles at the back of the neck was observable, with the effect of moderating the contortions of the shoulders and trunk, and allowing better rest. Chapman's spinal ice-bag was tried for several hours daily, during three or four days, but without marked benefit.

February 22nd.—Matters being at a standstill for some days, she was ordered three-minim doses of the liquor arsenicalis three times a day, and a drachm of the syrup of the iodide of iron. This treatment had to be stopped, diarrhoea ensuing, probably from the arsenic.

February 28th.—The diarrhoea having been checked by aromatic chalk-powder, she was put on half-drachm doses of syrup of the triple phosphate (strychnia, quinine, and iron) three times a day. This produced the most beneficial results. She improved steadily.

March 8th.—She could keep the tongue out, and steady her hands for some time, whilst the contortions of the features were not much marked, except when she was under observation. She was strong enough to be up for a few hours. Henceforward the convalescence was uninterrupted, she gained daily in strength and muscular control, and was discharged cured on March 20th. The time in hospital (about six weeks) was not long for so severe a case.

The course of this case shows how necessary it is to be able to vary our line of treatment, and probably indicates that, though a tonic line of treatment was the proper one—because with each tonic there was at first some improvement—yet it required such a combination as that of the triple phosphate to produce a progressive improvement and ultimate cure: a result which its nervine and muscular tonic properties and blood-enriching qualities are eminently calculated to accomplish.

ACUTE CEREBRO-SPINAL MENINGITIS.

(Under the care of Dr. HAYDEN.)

FOR the report of this case, we are indebted to Mr. Robert Curran.

Mary McGann, a domestic servant, was admitted into hospital on the 2nd of March, complaining of pain in the back, and headache, with loss of appetite. She stated that she had a great deal of work to do during the last month, and attributed her illness to this cause. The catamenia were not regular. She was ordered the tincture of the perchloride of iron, with chloric ether. She left Hospital on the 4th of the same month, much improved, and went to the country, where she continued to take her medicine. About ten days later, she felt so strong that she returned to her work, the headache and rachialgia having entirely disappeared. On the 17th, she was seized with rigors and a return of the pains, with sickness of stomach. On March 20th, she was readmitted into Hospital, when she appeared like a patient in the early stage of typhus; there were anorexia and headache; the pulse was quick. The tongue was covered with a thick brown fur in the centre, red at the tip and edges. Temperature 101; skin hot and dry. She had constipation. The pain in the head and back continued without intermission until March 27th, when a slight improvement took place. Previously to this, there was slight delirium at night; and chloral was given to procure sleep. The temperature continued throughout at 101, there being scarcely any variation. On the 28th, the headache returned with great severity, accompanied by active delirium. She refused food of any kind, and would not speak. The pupils were dilated; the head slightly retracted. Calomel was administered in half-grain doses every hour, and the scalp was vesicated. It was with difficulty she was made to swallow nourishment. On the following day, there was slight strabismus; no vomiting or convulsions. She died comatose on March 31st.

The cerebral pia mater was greatly congested, and the arachnoid at the base of the brain generally opaque and thickened. There was an excess of serum in the subarachnoid spaces, but no organised exudation. The spinal cord was not examined.

REPORTS AND ANALYSES

IN

MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

AN IMPROVED FOLDING BED-TABLE FOR THE USE OF INVALIDS AND OTHERS.

MR. T. McISAAC, Osborne Road, Fareham, Hants, is the patentee of this invention, which consists in securing to the bed-rail, or other convenient part of a bedstead or couch, a bracket, on which is hinged a rod, capable of turning in any required direction. At the outer end of this rod is a knob, and at a suitable distance therefrom is a second hinge, on which turns a crank. Affixed to this crank is a bar of T-iron, on the end of which the table is supported, and is capable of sliding backwards and forwards thereon, so that it can be placed in any desired position over the bed. When the table is required to be used, the rod is turned upwards and the bar carrying the table placed at right angles thereto, so that it projects over the bed, the crank on the bar catching into the knob on the rod and being securely held thereon. The folding-bed-table will be found invaluable for invalids who necessarily pass much of their time in bed, as it will serve both for meals and for a reading-table, and for other useful purposes, one of its greatest advantages consisting in its capability of being folded up and turned out of the way under the bed with the greatest facility and rapidity.

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THE NEW ITALIAN SANITARY CODE.

IN last week's JOURNAL, we gave the headings of the new code of public health drawn up by the Italian Sanitary Commission appointed in 1866, and which has been brought before the Senate. We have not seen the measure in its entirety; but we derive from our contemporary *L'Imparziale*, the following sketch of some of its principal features, which will be regarded at the present time as of much interest.

The care of the public health is, without exception of any kind, to be entrusted to the Minister of the Interior; who is to be aided by a superior Council of Health consisting in great part of medical men. This Council is not only to attend to domestic sanitary affairs, but to certain parts of the hygiene of the army and navy which have a bearing on the public health; such as the state of military establishments, including barracks, and the movements of troops during the prevalence of epidemic and contagious disease. The Commission recommend that an army and a navy medical officer of high rank should be members of the Council.

The new code proposes that the prefects and subprefects be, as at present, aided in their sanitary duties by provincial and district Councils of Health; and that, to aid the town authorities, there be formed municipal Sanitary Councils—which hitherto have existed only under special regulations. In all these Councils, a large share is to be given to the medical profession; and a member of the medical department of the army is to take part in the proceedings of each provincial Council. It appears that the duties of these Councils are to be consultative only, and not executive.

All communes are to provide themselves with physicians, surgeons, and midwives; and the bill provides for the establishment of sanitary districts by the combination of several communes with the sanction of the provincial Councils of Health. The practice of pharmacy is to be free to matriculated pharmacists, over whose establishments a surveillance is to be exercised by means of visits made by order of the prefects. The druggists are to be forbidden to sell medicinal substances by retail; and the sale of secret remedies is to be prohibited. The practice of medicine is to be permitted to those only who have obtained a diploma or licence from one of the Universities or schools of the kingdom; illegal practitioners are to be punished. Natives of Italy and of other countries, however, holding foreign diplomas, are to be allowed to practise on undergoing a simple confirmatory examination, from which the superior Council of Health may, according to its judgment, exempt professors in foreign Universities and foreigners who have obtained distinguished celebrity in practice. The practice of blood-letting and that of dentistry are limited to the holders of surgical diplomas. Physicians, surgeons, and veterinarians, are forbidden, under pain of fine and imprisonment, to enter into any agreement with pharmacists for participation in drug profits.

A national Pharmacopœia is to be published within a year after the passing of the Bill; and is to undergo revision every fifth year.

All practitioners of medicine are to be obliged to inform the town authorities whenever cases of dangerous or spreading disease come under their notice.

During the development of epidemics, the prefects are to have full power to act on the ground of urgency, and to provide when necessary extraordinary medical and medicinal aid. Communes are to be authorised to take such measures of isolation as may appear capable of preserving them from contagious diseases, provided that such measures do not prevent or hinder the transit of passengers and goods by railway, or on the public roads, at points beyond the commune.

It is not proposed to make any direct provision for compulsory vaccination; but no one who has not been successfully vaccinated is to be

capable of admission into infant asylums, public schools, colleges, or any educational establishment whatever, national or provincial. Recruits for the army and navy, and culprits on arriving at their place of punishment, are to be revaccinated. The provinces are charged with keeping up the supply of vaccine matter, in order that vaccination may be carried on through the entire year at every chief place. Officially recognised vaccination is to be done from arm to arm; animal vaccination is to be performed only under the advice of, and according to the rules laid down by, the provincial Councils of Health.

As regards the prevention of syphilis, the obligation on the communes to provide dispensaries for the treatment of the poor who are affected with the disease remains in force; and, in addition, lock hospitals (*sifilocomi*) are to be provided for diseased prostitutes, and all hospitals are to be obliged to receive syphilitic cases. The bill also renders obligatory a medical visit every eighth day to all private soldiers, in order to ascertain that these are free from syphilis; and the crews of ships of war are to be inspected in like manner, on arrival in port. The children and nurses in foundling hospitals are also to be specially watched, in order to obviate the danger of infection.

Medical statistical returns are to be drawn up in each province, under the care of the Councils of Health. These returns are to be founded on tabular statements, and on other information derived from the syndics, private practitioners, and district medical officers; and are to form the bases of biennial reports on the public health of the kingdom, under the supervision of the Minister of the Interior.

With regard to cemeteries, sepulchres, and burials, the proposed law differs somewhat from that now in force, in authorising in special cases burial in private chapels or outside churches, provided these be in the open country, and that the burial be performed in accordance with certain hygienic regulations described in a permission given by the syndic. The Minister of the Interior may give special permission for other methods of burial, provided always that they are declared by the superior Council of Health to be innocuous.

Provision is made for arresting the progress of epizootic diseases, and for removing the dangers to human health arising therefrom.

Maritime hygiene is the subject of numerous regulations, and occupies a large share of the proposed code. Among the clauses under this head, is one which renders obligatory the appointment of a medical man to every Italian vessel having a crew of one hundred persons, and the voyage of which is likely to extend over forty days.

Such are the main points of the Bill, as far as we have been able to gather them from the remarks of *L'Imparziale*. It will be evident that it is a most comprehensive, and, on the whole, excellent measure; and that it reflects great credit on the commission to whose labours it is due. Our contemporary again animadverts on a clause to which he called attention some time ago, providing punishment for practitioners who refuse, without urgent cause, to give aid in cases of emergency. This clause, it is believed, was not drawn up by the commission, but has been introduced by the government; and certainly the distrust which its existence in the bill denotes is not at all in accordance with the implied confidence in the medical profession which is evident in other parts of the measure. Putting aside this blemish, the bill is one which our sanitary legislators would do well to study. It may be, that all of its provisions are not equally applicable in Italy and in England; but it seems very probable that, unless England move more quickly, Italy will soon outstrip her in completeness of sanitary legislation.

INFLUENCE OF TROPHIC NERVES ON INFLAMMATION.

AMONG the disputed questions in physiology, is the mode of explanation of the inflammatory and destructive effects which ensue in a part when its nerves have been divided or otherwise destroyed. Numerous instances of such effects are to be found in the records of clinical medicine. They have been more particularly observed and studied in the case of the eye, after division of the fifth nerve within the skull. As

is well known from the experiments of Magendie and Longet, destructive inflammation ensues in the eye and its appendages on the side of section.

A very common explanation of these results is that given by Snellen and Büttner, who consider that they are due to the eye having lost its sensibility, and thus being rendered incapable of protecting itself against external irritants. This explanation, however, though at first sight apparently quite satisfactory, is not in accordance with observed facts. For, as observed by Samuel, the same inflammation ought to result from facial paralysis, where the eye is continually exposed to the action of irritants. This, however, is far from being the case. And, moreover, it has been shown by Meissner and Schiff that in certain lesions of the trunk of the fifth nerve destructive inflammation of the eye ensues, even though the eye retain its sensibility; and, on the other hand, sensibility may be lost, and yet no ophthalmic inflammation result. This very curious result has been found to depend on the seat of lesion as regards the trunk of the fifth. If the outer fibres be divided, the eye loses its sensibility; while, if the inner fibres be divided, the eye retains its sensibility, but nevertheless undergoes destructive inflammatory changes.

These and other experiments have led to the recognition in the fifth nerve of the presence of *trophic* nerves for the eyeball. As regards the nature and mode of action of these trophic nerves, however, there is little or nothing known satisfactorily. Some attribute the effects on the eye caused by the division of the trunk of the fifth to vaso-motor disturbance caused by paralysis of the branches of the sympathetic which run in the trunk. And this explanation is apparently supported by the fact, that section of the fifth nerve posterior to the Gasserian ganglion is not so fatal to the eye as section anterior to the Gasserian ganglion, where the sympathetic joins the nerve. Others consider that there is a system of purely trophic nerves distinct from vaso-motor nerves; but whether these act independently of vaso-motor influences or not, is a point on which nothing definite is known.

The recent researches of Dr. Sinitzin of Moscow (*Centralblatt für die Medicinischen Wissenschaften*, No. 11, March 18, 1871) throw a new light on this subject, and cannot fail to prove of great significance in regard to the nutrition of tissues and the question of inflammation generally. Dr. Sinitzin details some remarkable results which follow evulsion of the superior cervical ganglion of the sympathetic in rabbits. This operation renders the eye much more capable of resisting the action of external irritants, and even completely antagonises the effects of section of the fifth nerve. Dr. Sinitzin extirpated the superior cervical ganglion on one side, and then introduced into the corneæ of both eyes, at corresponding points, glass threads of the same size and at the same depth. In all cases there resulted in the eye of the sound side more or less violent conjunctivitis, pannus, purulent infiltration of the cornea, followed by ulceration and ultimate destruction of the tissue in the neighbourhood of the infiltration, also a greater or lesser amount of iritis and sometimes panophthalmitis; while the eye of the side operated on exhibited little or no alteration.

He found also that section of the fifth nerve within the skull was followed by no inflammatory results when the superior cervical ganglion was extirpated immediately before or after this operation. And not only so, but, even when the destructive effects of section of the fifth nerve had advanced to a considerable degree, provided the cornea had not become opaque, they were entirely arrested and complete reparation ensued. Even when the destructive changes had gone beyond the point of complete reparation, extirpation of the superior cervical ganglion caused them to stand still and improve to a greater or less extent. In order that reparation might take place, it was not at all necessary to take any special precautions to protect the eye against external irritants.

These remarkable results Dr. Sinitzin is inclined to explain by the increased vascularity and temperature of the eye resulting from the extirpation of the superior cervical ganglion. For he finds that irritation of the depressor nerve, by causing dilatation of the vessels, renders both eyes equally resistant against inflammation from irritating substances. And, on the other hand, if the carotid were tied, this extir-

pation of the cervical ganglion had no influence in checking the effects of section of the fifth nerve.

These experiments are worthy of careful study and repetition, and they suggest an explanation of the trophic influence of the nerves on the eyeball. It is possible that there may be in the trunk of the fifth nerve certain afferent fibres (not sensory) by which the tissues excite an inhibitory action on the vaso-motor centres, and thus produce dilatation of their vessels and thereby regulate their own vascularity and nutrition. This explanation would be fully in accordance with known facts. Bernard and Lovén were the first to show that vessels may be dilated by irritation of certain afferent nerves. Ludwig and Cyon have likewise shown the remarkable influence of irritation of the superior cardiac branch of the vagus in producing general vascular dilatation.

Dr. Rutherford (*Journal of Anatomy and Physiology*, May 1869, p. 414; *Transactions of Royal Society of Edinburgh*, vol. xxvi), Professor of Physiology in King's College, however, was the first to show that vaso-inhibitory nerves are in action during the congestion of a part which is the seat of active nutritive change. He has shown that, in the congested state of the stomach during digestion, influences pass through the vagi to keep the vessels of the stomach dilated. If the vagi be divided during digestion, there is perceptible blanching of the mucous membrane of the stomach from cessation of the vaso-inhibitory influence exerted by them. That a similar influence is exerted through the fifth nerve from the eye, is probable from the results of section. We should thus ultimately resolve the trophic influence of the nerves on the eyeball into reflex mechanism through the fifth and sympathetic. The experiments of Sinitzin would moreover seem to show that increased vascularity and temperature are safeguards against destructive inflammation. If so, then we shall be the better able to understand the ordinary local treatment of inflammation by means calculated to increase the heat and vascularity of the part.

SANITARY ORGANISATION.

OUR readers will have observed that an ordinary meeting of the Metropolitan Counties Branch will be held at 32A, George Street, Hanover Square, on Wednesday, May 24th, at 8 P.M., T. Heckstall Smith, Esq., F.R.C.S., President, in the Chair, when Dr. A. P. Stewart will read a paper on "Sanitary Organisation, as viewed by the Joint Committee of the British Medical and Social Science Associations, the Royal Commission, and the Government". We call attention to this subject, because it is one of which all the importance does not appear at first sight. The withdrawal of Mr. Göschén's Local Taxation Bill leaves open to careful consideration the recommendations of the Royal Sanitary Commission and the subject matter of their Report. It is in our Association and in the Social Science Association that the conclusions of that Commission can receive the most critical and fruitful appreciation. In order to be fruitful, such an appreciation must be critical. Dr. Stewart, as one of those who take a very able and active part in the initiatory proceedings which led to the appointment of the Royal Commission, as well as by the whole character of his mind and previous labours, is extremely well fitted for the task which he has undertaken. He has been by no means well treated in the matter by the Government or by the Commission, but he is a man too essentially just to be influenced by that consideration in his estimate of their plans. We cordially invite our associates and readers to attend the meeting, in order to give to the Association the assistance of their experience and views on the highly important subjects which will be discussed. It should be remembered that we are on the verge of momentous legislation concerning them, and our Association is in a position to continue to influence such legislation in the direction which medical experience and forethought may indicate. We may mention in this connection that a new volume of the Sanitary Report is just issued, and that it contains a valuable memorandum on the organisation of a system of State medicine by the consolidation of departments, and the utilisation of the Poor-

law medical officers. By the courtesy of Dr. Acland, we have received a separately printed copy; and as we believe that this memorandum would be read by many with great interest apart from other matter, it would be well to issue it in that form. It will come under discussion before the Metropolitan Counties Branch on Wednesday, and before the Joint Committee on Thursday.

THE AMALGAMATED EXAMINATIONS.

THE Committee of the College of Physicians have produced a scheme for consideration by the Joint Committee, to which we heartily wish success. It frankly accepts and ably embodies all those principles which have been frequently urged in our columns, and with which our readers are familiar as those accepted by all medical reformers as the true basis of a complete reform. Under this scheme, the examination would be a minimum examination, and essential for all the Universities and licensing bodies of Great Britain. It would be carried out by Examiners appointed by a Joint Committee, with a sole view to the fitness of such Examiners. The fee for the joint examination would be one calculated only to cover the expenses—about fifteen guineas. The licensing bodies would not confer any licence except upon those who had passed the examination, and each would fix the fee for its licence. If the College of Surgeons will on its part accept this scheme, it will establish its claim to be considered sincere in the cause of medical reform.

THE General Medical Council of Education and Registration will meet on Tuesday, July 4th, at two o'clock, at the house of the College of Physicians, London.—Dr. Sharpey's term of office having expired, he has been re-appointed by the Privy Council.

THE Joint Committee on State Medicine of the Social Science and British Medical Associations will meet on Thursday, May 25th, at 4 precisely, at 1, Adam Street, Adelphi, to consider the Report of the Royal Sanitary Commission, and for other business.

THE President and Council of the Pharmaceutical Society had a brilliant *conversazione* on Wednesday night at the South Kensington Museum, attended by nearly three thousand of their members and friends, including many distinguished members of the medical profession.

DR. HARDWICKE writes to the daily papers an energetic eulogy of chloralum, which he recommends for use by all medical officers of health, and of which he urges the exportation in bulk to Buenos Ayres, for disinfection of sewers, latrines, dwelling-houses, and the soil, as the best means of arresting the epidemic of yellow fever and neutralising its sequelæ.

A LIST of works provoked by Mr. Darwin's labours on Natural Selection and the Descent of Man is prefixed to the first number of the *Zeitschrift für Ethnologie*, and occupies twelve closely printed octavo pages. It will, says *Nature*, be invaluable to every student of the theory of evolution, and is a remarkable proof of the amount of scientific thought and work (as well as of some that is not scientific) which our great naturalist's writings have called forth.

MM. Laugier, Nélaton, and Payen report to the Academy of Sciences in Paris very favourably on the use of Calvert's carbolic acid as a disinfecting agent. They had instituted a series of experiments, which they carefully report; and, amongst other examples of the supremacy of this agent, they state that, by irrigating the bodies in the Morgue with a solution of one part in 4000 of water, they were preserved fresh for a very long time. Their report is unequivocally favourable.

THE LONDON HOSPITAL.

A FIRE broke out in the carpenters' workshop adjoining the London Hospital on Tuesday, and caused some consternation amongst the inmates. The workshop was burnt down, but no damage was done to the hospital buildings.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

THE next meeting, being the last of the session, will be held on Saturday, May 20th, at 7.30 P.M., at the Scottish Corporation Hall, Crane Court, Fleet Street. Dr. Ballard will read a short paper on the Interment of Still-born Children. Dr. Letheby will read a paper on the Quality of the Water-Supply of some of the large Cities and Towns of England, in relation to their Sanitary Condition.

INTEMPERANCE IN THE FRENCH ARMY.

AT a meeting of the Academy of Medicine in Paris on the 9th instant, M. Jeannel read a paper on the intemperance in the French army, and proposed means for its repression. These consist, in cases of occasional intoxication, of fines, deprivation of sabres, and forced labour; and in habitual drunkenness, of prolonged military service, and labour at earth-works. The paper has been referred to the Committee on Alcoholism, which consists of MM. Bédard, Bergeron, Chauffard, Gosselin, and Verneuil.

THE VERSAILLES MILITARY HOSPITAL.

SEVERAL cases of hospital gangrene, says the *Gazette Médicale de Paris*, have appeared in the Military Hospital at Versailles. A number of the patients have consequently been removed, some to the ambulance established at the Grande Seminaire, and others to a new ambulance formed in the open air at Trianon by M. Larrey. It would be beneficial to the health of the troops and of the inhabitants of Versailles, if the ambulances were placed in the numerous parks which surround the town, instead of being multiplied within it.

SMALL-POX AT SOUTHAMPTON.

The last weekly return of the Registrar-General reports a further decrease in the deaths from small-pox at Southampton. Dr. Blaxall, one of the inspectors of the Medical Department of the Privy Council, has recently been at Southampton advising the local authorities as to the steps which should be taken to prevent the extension of the epidemic, and we believe that the authorities have actively set to work in the matter, hence in all probability the reduction in the mortality.

THE YELLOW FEVER IN BUENOS AYRES.

THE newspapers of Buenos Ayres give harrowing details of the terrible effects produced by the epidemic of yellow fever in that city. The *Buenos Ayres Standard* says:—"During last week nearly 4,000 persons died of the plague alone, other diseases being at the normal rate." Business is entirely suspended. The Government has decreed a general holiday for the rest of the month, and everything is paralysed. It has been a most disastrous season for Buenos Ayres, but it is to be hoped that the cold weather, which must set in shortly, will put an end to the plague. It has been calculated that not more than 30,000 inhabitants remain in the city at night, of whom from 7,000 to 10,000 are ill with the yellow fever.

PRESERVATION OF MEAT.

AMONG the methods of preservation of meat and other animal substances employed during the siege of Paris was one by Dr. Declat, which consisted in first immersing, for some length of time, the substances alluded to in aqueous solutions, of varying strength, of perfectly pure carbolic acid, and next drying the materials. The process has been tried, and found successful, of late, in Paris, with various foods, including vegetables. In another process, recommended by M. Pelouze, the meat, or other animal substance, first cut into pieces of a convenient and not too large size, is introduced into an apparatus wherein it is kept for some time in an atmosphere of carbonic oxide gas under some

pressure; and next, the material so treated is dried in a current of dry cold air, so as to remove all traces even of moisture from the substance; after which the meat is superficially treated with an antiseptic solution—either a concentrated brine, or solution of saltpetre or phenicated water—and then packed in hermetically sealed vessels.

UNIVERSITY OF LONDON.

THE Treasury has sanctioned the appointment of two assistant examiners in Experimental Philosophy at an annual salary of £25 each, and a salary of £30 in place of £25 to each of the assistant examiners in Chemistry, as it is thought expedient to charge them with the superintendence of the practical and laboratory examinations at the Preliminary Scientific and first M.B. examinations.

SMALL-POX IN LONDON.

THE Registrar-General, in his report for the week ending last Saturday, says:—"Greater energy appears to have been shown in securing the more general adoption of the protective influence of vaccination; and the fatal cases of small-pox in London, which in the three previous weeks had been 276, 261, and 288, declined to 232 last week. In ten permanent and temporary hospitals for this disease 81 deaths were recorded last week, of which 36 and 16 occurred respectively in the institutions at Hampstead and Stockwell. After distributing these deaths among their proper districts, it appears that 23 deaths from small-pox last week belonged to the west group of districts, 64 to the north, 15 to the central, 46 to the east, and 84 to the south. A decline was shown in each of these groups of districts, but it was most marked in north and south London. The greatest fatality from small-pox was shown last week in Somers Town, Shoreditch, Bethnal Green, Mile End Old Town, Walworth, Bermondsey, Clapham, and Battersea; in the latter sub-district, 13 of 33 deaths were referred to small-pox."

BLOOD-STAINS.

DR. LETHEBY'S evidence at the preliminary investigation of the Eltham murder is of considerable interest in respect to spectroscopic, chemical, and physical qualities of blood-stains. In cross-examination by the solicitor of the accused, he is reported to have stated that he knew, from practical experience, that the blood of a pregnant woman was of lower specific gravity than the average, and that age had a great effect upon the blood. He agreed with Donné that the blood of the foetus is very rich in solid matter, especially in red corpuscles, and that this condition continued some weeks after birth, and that the quantity of solid matter again rises during adult life, and in old age falls again. The stains on the clothing were certainly not old stains, as it was a property of old blood to become insoluble in water, new blood being soluble. He would not like too much importance to be attached to this, as it was a mere opinion, not founded on experience. The acidity of the atmosphere in London had a tendency to change blood to the insoluble form.

MEDICAL PAPYRUS WITH ANCIENT PRESCRIPTIONS.

THE *Pharmaceutical Journal* has an account of a medical papyrus recently presented to the British Museum by the Royal Institution. It is about seven feet six inches long by seven inches wide. It is much mutilated, and has been considerably worm-eaten. The commencement is wanting, but its contents are a series of recipes or modes of cure for different maladies, unaccompanied by any diagnosis or account of the disease. The papyrus is written on both sides, and is a palimpsest, and on the endorsement is the commencement of a second series of cures for a malady, the nature of which is not known, but the remedy for which is said to have been miraculously found in an old book discovered in a hole in the wall of a certain temple by a priest. The book so found was written in the days of Cheops, the celebrated monarch of the fourth dynasty, and the builder of the great pyramid. The remedy for this malady consisted of incantations and prayers, and no drugs were employed. Other recipes are given for the eyes, both right and left. Amongst the drugs mentioned for some maladies are wax, fat,

and incense. One remedy is for stoppage of hæmorrhage from the head and other parts of the body—shavings or twigs of acacia, grains of a substance called *kaspr*, to be burnt, also milk, branches of olive, the hair of a cat, and honey. One prescription orders the chapter to be said, and the breast to be rubbed with drops of the urine of an animal called *tesh-tesh*, some extract of a material called *matn*, and wax and honey mixed with a preparation called *tart*. Another mixture was a preparation of sycamore and lizards. Fig-leaves, gum, and excrementitious matter were also employed, and eked out with prayers and adjurations, but the meanings of the names of many of the substances are as yet not interpreted. This papyrus has not, like that of Berlin, the quantities attached, but many of the recipes date from an early period, as that of Amenophis III of the eighteenth dynasty. The papyrus is, however, very remarkable for its mention of these drugs at all, as some of the other medical ones known, as that of Leyden, have prayers and adjurations only.

SPURIOUS TEA.

DR. LETHEBY, the Medical Officer of Health for the City, has this week brought before the notice of the Commissioners of Sewers the fact that a large quantity of spurious tea had been sold by public auction at the Commercial Sale Rooms in Mincing Lane in the course of last month, and produced various samples which had been obtained by one of the sanitary inspectors. He stated that they consisted of tea-dust and siftings and of damaged leaves in a putrid condition, and were in fact precisely of the same description as the samples which were the subject of legal proceedings in March 1870. The so-called "Moning Congou" was composed of broken down and rotten tea-leaves which had already been used for beverage; and the "orange Pekoe siftings" were made up of similar leaves, together with a large quantity of those of other plants. In the scented tea-dust there was a great proportion of earthy matter and iron-filings. The tea was sold to the extent of 600 half-chests, and the price realised was from five to seven farthings per pound. He had been informed that it was intended for country use, and that samples had been exposed for sale at Liverpool. He recommended that the matter should be referred to the Sanitary Committee, with a view to legal proceedings being instituted, and he added that a quantity of similar stuff was now on its way from Shanghai. Mr. Deputy de Jersey suggested that the Committee should at once confer with the Government, to obtain assistance, whereby this disastrous and dishonest traffic might be effectually stopped. Hitherto, he said, the Committee alone had been almost powerless. Mr. Bedford remarked that a duty of sixpence on each pound imported must have been paid. The matter was then referred to the Sanitary Committee.

SCURVY.

THIRTEEN cases of this disease have been taken into the Seamen's Hospital during the past month, and have exhibited the various phases of the malady very fairly and exactly, though the leading signs were not present collectively in any one case. In four of these patients, spongy gums, some slight ecchymoses about the lower limbs, and great prostration, were the prominent symptoms. In three others, the mouth was influenced in an infinitesimal degree, but in one or both legs there was a brawny hardness eminently characteristic of scurvy, and due to an exudation akin to fibrine between the muscular fibres, seen in no other disease. In two other cases, injured limbs were only attacked, and but slightly. These patients had all been more or less badly fed, and had neglected to take the lime- or lemon-juice served out on board ship. In one case, stinking meat was served out while the ship was lying at Buenos Ayres; and in another the supply of potatoes was stopped in Bombay harbour on account of some insubordination among the crew. It appears, indeed, that the cause of the disease in nearly all these patients was preventable; though there can be little doubt that, until the scales of diet commonly used on board ship are altered, sailors in the British mercantile marine will be always predisposed to scurvy, and be attacked with it, if obliged, when at sea, to knock off work on account of an accident or of some surgical disease. All these

patients were treated with ten or fifteen grain doses of citrate of potash. This drug was prescribed by request, as an idea existed that this treatment would serve to illustrate the usefulness of the citric acid and potash plans of treatment by a happy combination. The patients have all, with one exception (a phthisical subject), convalesced quickly and satisfactorily; but we cannot attribute this result to citrate of potash, inasmuch as the great majority of patients admitted with scurvy are treated with good general diet and *placebos*, and always do well. Scurvy is often difficult to prevent, but very easy to cure, and it is far too often forgotten that no prophylactic plan can be tried crucially, unless the subjects of the trial live under conditions decidedly provocative of the disease, which condition should never exist in any hospital. The time has, however, arrived when scurvy should cease to exist on board ship, because shipowners should, on principles of economy as well as of humanity, reform their scales of diet so as to render the use of lime- and lemon-juice unnecessary, or be compelled to do so by legislative interference.

DEATHS FROM CHLOROFORM.

WE observe with regret that two or more deaths have occurred this week from chloroform. These frequently recurring accidents afford a significant comment upon the importance of the questions which we have prominently raised concerning the relative mortality of anæsthetics, and the plea which we have urged for a reconsideration of the claims of ether and an extension to surgical practice, in suitable cases, of the nitrous oxide. It is announced in the daily papers that Lieut.-Col. Rogers, R.A., was staying with his brother at Cornwood last week, and, while in the garden at the back of the house, fell over a plant-pot, thereby receiving a compound fracture of the leg and a dislocated ankle. The broken bones were set by two medical gentlemen of Plympton; but, Colonel Rogers not progressing, a third medical man was called in, and it was decided that the leg should be reset while the colonel was under the influence of chloroform. The latter was administered, and caused almost instant death. No blame is attached to the medical gentlemen.—On Tuesday an inquest was held at the London Hospital on the body of Mrs. Hale, aged 49. Deceased was admitted into the hospital suffering from an ulcerated leg, and amputation was considered absolutely necessary. On Wednesday, by her own consent, chloroform was administered in the usual way, but she sank under it before the operation was commenced. The jury returned a verdict of death from chloroform.

THE FORTIFICATION OF WINES.

ON this interesting dietetic subject, to which we last week referred in detail, Mr. J. L. Denman writes to us as follows.

Your article on the "Fortification of Wines", based on the Report of the French Committee of Public Health, in which the wines of the South of France are characterised as being "clammy, thick, scarcely acid, slightly alcoholic, highly charged with colouring matter and undecomposed sugar", and those of the North, produced above 48 North latitude (which, by the way, would include the Champagne district), as being generally "sour, harsh, and unripe", is only in accordance with the opinions of the best-known writers on the wines of France. But that, because out of the fifty-five millions hectolitres of wine produced in France, five millions only are fit to be exported without added spirit, does not, I respectfully submit, justify its use, or prove that the alcoholisation of wines is not detrimental, as stated by the French Committee, to the health of the consumer. In fact, their statement is in direct opposition to the written opinions and daily experience of our best medical authorities, both British and foreign. So far, however, as the perfectly fermented and full-bodied Greek wines introduced by me, and which I have been importing for the last ten years, are concerned, I can state that they have neither had nor require the addition of spirit or resin for their preservation. In evidence of this, I beg to say that there are now lying in the docks, and have been for several years past, large quantities of natural Greek wines, that pay but one shilling a gallon duty, in perfect preservation, and greatly improved by age. As regards the addition of resin, which is "gathered from the bark of the pine-tree", to the wines of Greece, it is confined solely to those intended for home consumption, and not for export, it being looked upon as a prophylactic against malaria fever. The United States Consul at Athens,

Mr. C. K. Tuckerman, in his Report to the State Board of Health of Massachusetts for 1871, states that "a medical gentleman who has had large experience among the peasantry, informs me that, when not abused, the tonic effect of the resined wine is rather beneficial than otherwise, its bitter pungency acting against the feverish influences of the summer miasmas". Consul R. S. Keef, in the same Report, states: "As to the Greek wines, probably they are purer than those of any other country in Europe"; and "when one becomes habituated to the resinated wine, which is the common drink—the poorer people liking no other so well—he discovers the purity of the wine from all other admixture, and, under the cloak of the resin, can distinguish easily the different grapes from which the different wines have been made. The proportion of resin varies from 0.5 to 5 per cent. Its addition is considered to make the wine more healthy, to facilitate digestion, and to counteract any ill effects which the lime-water of the country may have". He also says "that from the purity of the wine used, an excess of it caused little injury to the health".

GUY'S HOSPITAL.

At a meeting of the Governors of Guy's Hospital, Dr. Pavy was appointed an extra physician to the hospital. Dr. Pye Smith was at the same time appointed assistant-physician, to fill the vacancy caused by the promotion of Dr. Pavy.

A MODEL SANITARY AUTHORITY.

THE Lincoln Board of Guardians appear to be quite a model sanitary authority. They have refused to provide a vaccination station or pay for an assistant. Having received a communication from the Poor-Law Board insisting on them fulfilling that duty, they have appointed a committee to "draw up an answer." One of the Guardians candidly suggested that a great deal of time would be saved by simply writing—"We don't mean to do anything at all till we are forced to."

QUALIFIED TO PRACTISE MEDICINE.

AN inquest reported in the *Preston Evening News* (May 15th) discloses an unsatisfactory state of relations between Mr. Martland of Blackburn and Mr. Dearden of Accrington. This seems to have led to an altogether unjustifiable suspicion of malpractice against Mr. Dearden, and to an unjust public observation by Mr. Dearden "that Mr. Martland had no licence to practise medicine". Mr. Martland has the diploma of membership of the Royal College of Surgeons of England. He holds some important public appointments; and, considering that the analyses of the *Register* which were published in several successive years have shown that many hundred gentlemen are in general practice with the surgical diploma only—including many of the most eminent practitioners in civil and military life—we think Mr. Dearden's observation calculated to create an unjust prejudice.

BRITISH EXPERIENCES IN PARIS.

SURGEON-MAJOR WYATT gave an interesting account, on Tuesday night, at the Pathological Society, of some of the more remarkable cases which fell under his notice during the first siege of Paris. The mortality of the French hospitals had been enormous, blood-poisoning being the rule. He expressed the opinion that the reason of the mortality of amputations near the seat of injury, during this war, was the excessive splintering and crushing of bones to a considerable distance, due to the character of the bullets and rifles used. It was however, no doubt, still more largely due to that neglect of hygiene, which is the bane of both French and German surgery. Conservative surgery, said Mr. Wyatt, proved highly unsuccessful in the Franco-Prussian war. An American surgeon in the audience expressed, however, in very forcible language, his conviction that it was the dirt, neglect, and want of ventilation which were fatal; and that the rules of conservative surgery established honourably and successfully by British and American surgeons—in the Crimea, China, New Zealand, and America—were not invalidated by the fatal results of continental surgery during the Franco-Prussian war. Continental surgery, in more respects than one, is a century behind our own practice and that of our American brethren.

ARMY MEDICAL REPORT, 1869.

THE eleventh volume of the annual departmental medical reports of the army is just published by Harrison and Sons. It is produced under the superintendence of Sir T. G. Logan, the Director-General; of Dr. Graham Balfour, head of the statistical branch; Dr. H. H. Massy, head of the sanitary branch; and Dr. Thomas Crawford, head of the medical branch. It is, as usual, full of extremely valuable matter, relating not only to the health of the troops but to other subjects of general scientific interest. The appendix contains a series of valuable papers, which would properly form a volume of army medical transactions, and might, we suggest, with advantage be separately sewn. The price of this volume is eight shillings, and no one can say that it is too dear; but the appendices and parts of the volume might with advantage be accessible to the profession separately, at a lower price. Dr. Parkes's Report on Hygiene; Dr. Massy's Notes on Hospital Construction and Ventilation; the Reports on Epidemics, on Aneurism, on Delhi Ulcer, by Mr. Fleming and Dr. Aitken; Professor Longmore's case of Transfixion; Mr. Oughton's Observations on the Necrometer; and other papers, will be found to be of great general interest.

THE CONTAGIOUS DISEASES ACT, 1866.

Dr. GRAHAM BALFOUR, F.R.S., head of the statistical branch of the Army Medical Department, contributes a note to the annual report on the working of the Act. The figures which he gives are for 1867, 1868, and 1869. The ratios per 1000 of mean strength in all chief stations of the United Kingdom were as follows. For primary venereal sores, in stations under the Act for the three years successively, the numbers were 86, 70, and 61; in stations not under the Act, 106, 108, 113. In respect to gonorrhœa, no advantage is shown; the rate in the protected station for these successive years being 106, 108, 113; in the unprotected stations, 107, 108, 113. Thus it would seem that the protection from disease afforded by the operations of the Act is demonstrated in respect to those forms of disease which infect the constitution. It is not apparent in respect to the purely local affections. This Dr. Balfour attributes to the facility with which the women can conceal and dissimulate such affections, and the comparative difficulty of discriminating gonorrhœal from leucorrhœal discharges.

SCOTLAND.

THE ANDERSONIAN INSTITUTION, GLASGOW.

M. GUSTAV BISCHOF has been appointed "Young" Professor of Technical Chemistry in the Andersonian Institution.

THE LADY MEDICAL STUDENTS AND THE ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.

THE application made by the ladies for permission to obtain instruction at the Hospital for Sick Children has not met with success. The Managers consider that practical difficulties stand in the way which render it impossible to admit them at present to clinical instruction.

ABERDEEN OPHTHALMIC INSTITUTION.

THE annual meeting of this institution was held on May 12th. The medical report for the year ending March 31st showed that 854 persons—824 eye patients and 30 ear patients—had applied for relief, an increase of 180 as compared with previous years. Of the eye patients, 727 had been cured, 31 were improved, 30 were considered incurable, and 36 remain under treatment. Of the ear patients, 16 had been cured, 6 improved, and 8 considered incurable.

IRELAND.

WE trust that the whole influence of the profession will be used in the County of Wexford to secure the election of a medical coroner for the southern division of the county. Dr. C. J. Denny is announced as a candidate.

DR. G. YEO has been appointed Assistant-Surgeon of the County Dublin Militia Regiment, *vice* Willis, resigned. Dr. R. T. Huston has been appointed Surgeon to the Kildare Rifles, *vice* R. T. Huston, Esq., resigned.

COLLEGE OF SURGEONS.

THE annual election on June 5th will be more than usually exciting. The vice-presidency is sought by Dr. Mapother, already a member of Council; Dr. Darby, Medical Officer of the Rathdown Workhouse; and Dr. Kirkpatrick, Medical Officer of the North Dublin Workhouse. The previous collegiate services of the first-named gentleman render his election most probable. For the Council, the following are candidates: Dr. Robert McDonnell, F.R.S., Surgeon to Steevens's Hospital; Dr. Denham, ex-Master of the Rotunda Lying-in Hospital; Dr. Minchin, Medical Officer of the North Dublin Workhouse and City Prisons; and Dr. Shannon, Medical Officer of the South Workhouse.

IRISH POOR-LAW SUPERANNUATION.

A VERY influential deputation of members of Parliament waited on Mr. Baxter, the Secretary of the Treasury, this week, to present a memorial from Dr. Phelan, praying the Treasury to reconsider the terms of his superannuation pension as Assistant Poor-law Commissioner, and the grounds on which it was fixed, and asking that it might be based on the same principles as had been recently applied to the cases of three English Poor-law inspectors on their retirement from the public service. The grounds on which the application was made were stated by Mr. Cogan, and the memorial handed to the Secretary of the Treasury, signed by the following members of Parliament: Messrs. Cogan, Pim, Corrigan, O'Reilly Dease, Stacpoole, O'Loughlen, Murphy, D'Arcy, Sherlock, Bagwell, O'Brien, Power, M'Mahon, M'Evoy, O'Connor Don, Esmonde, Brady, O'Reilly, Bryan, Heron, Dowse, Martin, White, Dease, Maguire, Devereux, Callan, Gavin, De la Poer, Ennis, D. O'Connor, Gregory, Shaw, and Synan.

MEDICAL LEGISLATION.

WE call the special attention of our colleagues and associates in Ireland to the Bill which Sir Dominic Corrigan is preparing to bring forward in the House of Commons, at the instance of the Poor-law Medical Officers' Association of Ireland, to obtain adequate remuneration for the certification by Poor-law medical officers, and a more just scale of compensation for retiring superintendents of public lunatic asylums. On these subjects we have already given ample details, derived from the Honorary Secretary of the Irish Poor-law Medical Officers' Association and from the representative of the superintendent medical officers; and the Irish press, which has for many months generously seconded our efforts to support and aid the officers of the Irish Poor-law Medical Service in their arduous duties, has given extended publicity to our articles. The case is one in which the Poor-law medical officers have it in their power to help themselves. By filling up the forms issued to them by the Association, and communicating with their local members, they will ensure the desired relief. More than this, they will strengthen their influence by using it for the first time in an organised and effective combination, and will lay a solid foundation for future power in action on similar questions.

LUNACY LAW IN IRELAND.

AN inquest held this week at Dublin on a discharged lunatic who had committed suicide illustrates the result of the present state of the law in Ireland, which affords no protection to the Resident Medical Superintendents of Public Asylums such as is provided in England against actions for receiving, under the proper formalities, and detaining lunatics, or alleged lunatics. Dr. Lalor, the Medical Superintendent of the Richmond Asylum, deposed that, although he should have preferred to detain the deceased, he had not opposed his discharge, as he was a lawyer's clerk, and he feared grounds might be laid for an action. A gentleman labouring under hallucinations, whom he had detained some months ago, brought an action against him. The judge who tried the

case laid it down that he could not be detained unless there were some fear of violence to himself or others, and that the matter was not to be judged by doctors' theories, but by the man's own acts. At the same time a verdict of £100 was given against him (witness), and the public had been put to about £300 expense. He was influenced by the ruling of the judge on that occasion in this case; but he had no suspicion that the man was capable of attempting to commit suicide or to injure any person. He regretted the matter very much, but he had no alternative other than to recommend his discharge. As the deceased was still in the same state, on application for re-admittance the governors had declined to receive him on the same grounds. This man's daughter had applied to have her father detained, but on the trial the judge said that the relatives often had reasons for wishing persons to be so confined, and that was no excuse. The Coroner having addressed the jury, a verdict was returned to the effect that the deceased had committed suicide while labouring under temporary insanity, and that the governors of the Richmond Lunatic Asylum were in no way to blame in reference to their treatment of him.

VACCINATION AND SMALL-POX.

VACCINATION.

"PATHOLOGUS" writes to the *Times* that at present not only is there no security that every child born shall be vaccinated, but there is no security that the result of vaccination (if done) is seen and registered as successful or the reverse. To remedy this defect in carrying out the Vaccination Act there ought, he suggests, to be a public referee or inspector of vaccination for limited districts. To him, on the seventh or eighth day after vaccination of a child or adult by the public vaccinator, the child or adult operated on ought to be forthcoming (under some penalty for non-appearance). The inspector of vaccination ought then to judge as to the success or the reverse of the operation, and enter the result in a formal register accordingly. Thus the separate registers (1) of the vaccinator and (2) of the inspector ought to check each other by the names and dates, and so yield reliable *data* as to the efficiency of vaccination—*data* which we do not at present possess.

CONSOLIDATION OF VACCINATION ARRANGEMENTS.

THE facts which we have stated as to the dismissal of the six district medical officers of St. Pancras from their posts as public vaccinators have attracted attention in Parliament, and are undergoing discussion in the daily press. It is pointed out by one of the guardians, in a letter to the *Times*, that there are still six stations. This will seem to some people to deprive the action of the guardians of its sole excuse. If there be still six stations, why should not each medical man have remained public vaccinator for his district and at his station? In this way, the local knowledge and domiciliary activity of six medical officers would have been retained; and small-pox would have been more likely to be successfully attacked in its separate foci, while general protective vaccination would not have suffered. Up to the date of their dismissal, the six vaccinators had done their part with undoubted efficiency.

REVACCINATION AND SMALL-POX.

SIR,—I have been reading with interest the discussion in the *JOURNAL* on the relation of vaccination, primary and secondary, to small-pox, and have noted the great difference of opinion which exists as to whether revaccination affords any extra protection when good cicatrices already exist. Now I would propound a theory which seems to me probable, and, if correct, would explain some of the apparent anomalies, such as death from confluent small-pox after three vaccinations. (See Report of Surgical Society of Ireland, *BRITISH MEDICAL JOURNAL*, May 13th.)

I propose—1. That some constitutions are more susceptible to small-pox than others (which, I suppose, will be admitted); and, 2, that the same constitutions are more susceptible to vaccination. For instance, I should say that an adult, bearing one or two good cicatrices from the childish vaccination, and yet presenting a near approach to the typical vaccine vesicle after revaccination, shows a decided susceptibility to vaccination, and I would infer, *ergo*, to small-pox. This individual should be revaccinated as often as any chance of contagion offered itself. On the other hand, when revaccination, well performed, only just "takes", and quickly dies away, the person ought to be well protected, and require much less frequently, if ever again, vaccination.

It will be seen from what I have said, that I would make revaccination a test of a constitution's susceptibility to small-pox, and guide myself according to its result in each case in the opinion I gave as to the advisability of multiple revaccination. I may as well say that this is mere theory, quite unsupported by any experience of my own; and the importance of the subject is my best excuse for taking up so much of your space.

I am etc.,

S. G. SLOMAN, JUN., L.R.C.P. Lond., M.R.C.S.

54, Berners Street, W., May 13th, 1871.

P.S.—I hope some of your readers will be able to supply the facts I want, either to support or controvert my theory.

SPECIAL CORRESPONDENCE.

FOUR DAYS IN THE AMBULANCES AND HOSPITALS OF PARIS UNDER THE COMMUNE.

I.

A DESIRE to add a little to my Sedan professional experiences of war by obtaining a glimpse at the military surgery and medico-social arrangements of the Commune, led me to leave London for Paris on the evening of Friday, the 12th instant. I entered the besieged city by way of St. Denis, passing through the Prussian lines at eight o'clock on the following morning, without any noteworthy incident, except that at Calais the official at first refused to return my passport, and demurred to my proceeding on my journey, only yielding when I produced the brassard and parchment which I had obtained in autumn from the National Society for Aid to the Sick and Wounded. I drove from the railway-station to 7, Rue d'Aguesseau, the residence of Dr. Rose Cormack, your Paris correspondent, to whose labours during the siege you last week paid a just and well merited tribute, which I have heard fully corroborated during my four days of Parisian exploration. In relation to Dr. Cormack, I may here mention an incident which occurred at an after-part of the same day. When we were together in the Rue du Faubourg St. Honoré, we were met by a person whose occupation is to collect news for a London paper. He stated that he had been arrested at the Commune outpost of Issy some days previously, as a spy, but was immediately liberated on his producing Dr. Cormack's card, which he accidentally had in his pocket-book, with a note thereon to the effect that on the following day there would be four vacant beds at the Ambulance Anglaise. "All right," said the officer. "If you are connected with the English Ambulance, you may go. The Commune is very grateful to Mr. Wallace and Dr. Cormack."

The drive from the railway-station to the Rue d'Aguesseau was most impressive. The deserted streets and boulevards, the few shops that were open, and the boom of the cannon, strangely contrasted with the thoroughfares of London, which I had left but a few hours before. An explanation of all this was at once given by the almost ubiquitous costume of the Garde Nationale de Paris, in which nearly every man capable of bearing arms was clothed; and the stray flag of the Convention of Geneva suspended from many of the houses.

From a balcony of a mansion in the Rue d'Aguesseau floated the Union Jack by the side of the Red Cross. This building was, I found, Ambulance Anglaise. It is one of the ambulances which were organised during the German siege. The American and most of the other ambulances were closed on or before the 1st of April, at a time when it was generally supposed that such institutions were no longer necessary. Arrangements had been carried out to a great extent by the Intendance Militaire for removing to their homes in the country the convalescent wounded mobiles and soldiers of the line, excepting such as were not sufficiently recovered to bear the fatigues of the journey, and who were consequently accommodated in the military and civil hospitals of Paris.

I may here state that the American Ambulance, to which I have just alluded, was organised at the commencement of the siege under the superintendence of Dr. Swinburn. It was under canvas in the Avenue de l'Imperatrice; and although it was mainly supported by the Americans, who got the entire credit of the undertaking, English money and English hands assisted in the work. The ever ready generosity of Mr. Wallace added considerably to its support, and Mr. Baillie Cormack, a student of medicine and son of Dr. Cormack, acted as one of the dressers at the Ambulance. It was closed after a very successful career on April 1st. The precautions adopted as to ventilation and cleanliness, which I am told were beyond all praise, no doubt accounted for the total or all but complete absence of pyæmia.

Equally admirable results were obtained, for the same reasons, at the Ambulance in the Rev. Mr. Cook's Methodist Church at les Ternes, which accommodated ten beds, and was given up by that gentleman as an ambulance during the siege; in it only one death occurred. The success was in no small measure due to the unwearied exertions of Mr. Cook, who devoted himself to the care of the wounded in this ambulance and the ambulance service generally throughout the siege.

The English Ambulance not being actually closed on April 1st, Mr. Wallace resolved to keep open this, which is his Ambulance, being entirely maintained at his own expense for the succour of the wounded victims of the civil war. In addition to the Ambulance in the Rue d'Aguesseau, Mr. Wallace maintained during the whole siege, and still maintains, another Ambulance at 26, Boulevard des Italiens, known in Paris by the

name of the Ambulance of Mr. Richard Wallace. It has one large and lofty ward, which formerly, I was told, had been a picture gallery, and contains thirty-two beds, with abundant cubic space for each. It is under the charge of MM. les Drs. Portalier, médecin-en-chef and directeur; Péan, chirurgien consultant; M. Chanu, médecin adjoint; M. Picre, médecin de nuit; and M. Coudray, pharmacien. The official return, kindly prepared for me up to date May 15th by M. Portalier, states that the Ambulance was founded on September 22nd, 1870, that the number of regular soldiers admitted was one hundred, and the number of National Guards twenty—most, if not all, of the latter having been wounded since the commencement of the civil war. The number of deaths was ten, of which six were due to pyæmia. This Ambulance was to have been closed on April 1st, but has been kept open for the same reason as the Ambulance Anglaise.

Let me now return to the Ambulance Anglaise, which I visited with Dr. Cormack shortly after reaching his house. It consists of two spacious mansions with a central court and garden behind. Accommodation might easily have been afforded for fifty beds, but, in order to obtain abundant cubic space and efficient ventilation, not more than forty, excepting on very rare occasions, have been occupied, and to that number they are now restricted. It was organised on January 1st, and placed under the care of Dr. Shrimpton and Dr. Cormack. Latterly, in Dr. Shrimpton's absence, it has been under the charge of Dr. Cormack. Mr. Baillie Cormack has been indefatigable as an assistant and dresser. During the whole of the siege until the Ambulance Anglaise was opened, Dr. Cormack had ten beds at his disposal in his own house, chiefly supported by the Comité Evangélique. The operations of this Committee appear to have been very extensive. It had six or eight hundred beds widely distributed in and around Paris, and forty or fifty clergymen and readers served as *brancardiers* in the battles. Not only did they carry the litters, but took the place of the horses in the Ambulance-waggons after these animals were unobtainable. Attached to the Ambulance Anglaise are two wards for English women, the nucleus of a permanent English hospital which is to be built by Mr. Wallace, and to contain accommodation for twelve men and twelve women. These two English hospital wards are at present under the care of Dr. Herbert; but when the Ambulance is closed, the care of the wards will be taken by Dr. Shrimpton, Dr. Cormack, and Dr. Herbert in rotation. English out-patients are at present seen here gratuitously every day in the week, except Monday.

The ambulance arrangements of the Commune, at first very incomplete, are now assuming a more or less organised form under the administration of M. Sémérie, Directeur-General. Each *arrondissement* has its own service, its ambulances, and its civil hospitals, to which wounded may be sent; but a large number of the wounded National Guards are taken, at their own request, to their own homes. The various ambulances de la Presse which were organised during the siege have been again opened, and numerous other smaller ambulances are at work. In addition to the *arrondissement* ambulances, there are ambulances at the front for attending to the wounded before being sent into Paris. That at the battery near the Porte Maillot, where a large number of casualties have occurred, is on the ground-floor of a new house, and under the care of several surgeons and dressers. It is unnecessarily close to the battery, and has suffered considerably from shells, which are constantly falling around. A few hours before my visit, a large shell had passed into the foundations of the house and through the floor of the apartment adjoining the operating-room, and then burst, blowing the floor to atoms. The means at the disposal of the surgeons are insufficient for carrying off the dead and wounded, who are often left lying for some time unattended. All the medical men remaining in Paris, unless they show sufficient cause for being exempted, are either incorporated with the fighting battalions or are attached to ambulances. Although there is plenty of accommodation at several of the large civil hospitals, the number of wounded sent to them has been limited, except at Beaujon, which is within range of the shells, and receives many of the wounded: 150 have been admitted, under M. Dolbeau and others, into this hospital since the civil war began, amongst whom a good many have been women injured at Neuilly and the neighbourhood; I counted seven in one ward at this hospital. A large temporary wooden hospital, which was built during the siege, is now full of wounded National Guards. There are still twenty cases in Beaujon of wounds received during the first siege. At La Pitié there are about forty-five wounded, chiefly under the care of M. Broca, of which number thirty are old cases. At La Charité there are twelve wounded, mostly under M. Gosselin; and at the Clinic of the Ecole de Médecine only one. There is not a single wounded man in the Hôtel Dieu. The mortality at Beaujon has been excessive. It is very difficult to say what number of killed and wounded there has been since the second siege began. I tried to obtain trustworthy figures, and believe that

the Communist loss has been little under 12,000 in killed and wounded. There are at this time probably about 1500 wounded in the hospitals and ambulances of the *arrondissements*, in addition to those under domiciliary care.

A remarkable feature which I noticed whilst visiting the ambulances was the number of volunteers amongst the wounded. In the Ambulance Anglaise a fifth, I should think, were volunteers; but the occurrence of so large a number was, I cannot but think, in this case a coincidence. Some of them were foreigners, but the majority were boys under nineteen, at which age they become liable to serve in the ranks of the Communist army. It is difficult to imagine what impulse led them at such a time to enter voluntarily the army; but, although some of them were doubtless enthusiasts, and others took to fighting, because it was the business of almost everyone else, still I believe the explanation is generally to be found in the thirty sous a day, the pay of the National Guard. Fighting is almost the only means of procuring a livelihood. Boys unable to carry a rifle are earning their few sous a day by working in batteries. One of Dr. Cormack's patients was a boy of fourteen, who was wounded by a shell on the back while replacing sand-bags on a battery as they were knocked off by the guns of Valerien: another patient was an Englishman who had been in the British army, and latterly a volunteer in Chanzy's army. He had gone to watch the fighting at Porte des Ternes and received a bullet through his thigh.

The details of cases of medical and surgical interest which came under my observation I propose to defer until next week, my chief object now being to give a general idea of the ambulances and hospitals of Paris under the Commune.

I visited, with Mr. Baillie Cormack, the Quartier Latin. Its deserted appearance was most impressive. At the Sorbonne, the Concierge looked quite offended at our daring to disturb the silence of the quadrangle. Not a student was to be seen; and the only course of lectures announced on the walls, was one on anatomy by M. Paul Jervais. That the department appertaining to the theological faculty should present no symptoms of life, was intelligible, as the Catholic religion and the priesthood are not at present tolerated by the Commune; and the churches are all closed or transformed into clubs. We wended our way across the Boulevard St. Michel, and along the Rue de l'Ecole de Médecine to the Ecole Pratique. Here were a few almost untouched bodies in the dissecting room, but no students. The instrument-shops of Charrière and Louer failed to present their wonted activity, notwithstanding the constant requirements of surgery at the ramparts. The statue of Bichat was alone left to survey the empty court and closed gates of the Ecole de Médecine. There was something strangely contradictory to all this in the "Liberté, Egalité, Fraternité", inscribed on the front of the building. The walls of the Clinique de la Faculté de Médecine opposite, had not escaped this now universally prevalent motto.

Where were the students? With the exception of a few foreigners who still remained in Paris, and those actually required on duty at the hospitals, they were to be found in the battalions of the Garde Nationale, or serving as dressers in the ambulances of the Commune. The medical students had met, and decided by a large majority to have nothing to do with the Commune, and refused to take out their inscriptions under the Communist medical authorities. Many of the leading members of the Faculty had left Paris. An attempt had been made to get up a new medical school and staff; a new Dean had been appointed; and a meeting of medical men had been called for the consideration of the subject, but no recognition had hitherto been given by the students to the efforts of the Commune. The behaviour of the students is looked upon as a great blow to the Commune, as the medical *élèves* of the Quartier Latin have usually entertained advanced political opinions; those of the Commune, however, have proved too *prononcés* even for them.

An innovation has been introduced at the Beaujon, which hitherto had not been allowed by the authorities to hold *cours*; the staff have taken advantage of the permission of the Commune, and lectures on the Eye and Ear by Duplex, on Therapeutics by Gubler, on Clinical Surgery by Dolbeau, and on Clinical Medicine by Axenfeld, are now being delivered. I attended one of M. Axenfeld's lectures on clinical medicine, the interest of which was by no means diminished by the noise of bursting shells within a few hundred yards of the theatre, and the more irritating fusillade of musketry and the whirr-r-r of the mitrailleuse. Several shells (eight, I was informed) had during the past few days dropped within the precincts of the hospital—luckily, without doing much damage. Twenty-five students were present—with one or two exceptions, all were internes and dressers.

Although a large number of the leading members of the profession have left Paris, many still remain to perform their hospital duties. At La Pitié, Lasègue and Broca were making their visits as usual;

several of the staff, however, having left Paris. At the Hôtel Dieu none were absent, and Gosselin was still at La Charité. The national religion being abolished, the Commune has decreed that the wards shall no longer be called by the names of the saints, and that they be numbered. This decree, I was told, has been already effected at one of the hospitals.

JOHN MURRAY, M.D.

BILLROTH'S CLINIQUE AT VIENNA.

[FROM A SPECIAL CORRESPONDENT.]

THE summer session opened on April 17th, and Billroth's Surgical Clinic a week later. Every morning at nine, Billroth and his class meet in the theatre, where out-patients are seen. All but trifling cases are admitted one by one, in sight of the class, while a student, different each day, makes an examination, and attempts the diagnosis. The cases are sifted by the assistants before Billroth's arrival, and so the utterly trifling cases are seen to and dismissed. Meanwhile, cases from the wards are also brought in and lectured on, and, if necessary, operated on. In this manner the attention of the class is daily given to surgery of the most general description, including at once ordinary routine cases such as occur to any practitioner, and the rarer or more special cases which are sent from a distance to a surgeon.

Those who wish to see the progress of the in-patients can go round the wards every evening at five with the assistants. The temperature of every patient operated on—in fact, of most of the patients—is taken night and morning by the nurses, and marked down plainly on the board at the head of each bed, so that the time of the assistants is not wasted in this act.

It is striking how much epithelioma one sees here—roughly speaking, about one case a day. Billroth does a good many plastic operations; many of them in cases of epithelioma, at the time of the removal of the growth.

Excision of Ankle.—The patient was a little girl, very thin indeed. The right ankle was diseased; the parts around the joint were much swollen, and a sinus existed on the outer side. Some bone had previously been removed. On May 1st, Billroth removed the lower end of both tibia and fibula to the length of about an inch, making an additional cut on the inner side of the joint. On May 6th, the foot and leg are fixed in an apparatus of plaster of Paris and paraffin, bandaged on over cotton-wool; when set, this is impervious to water. The joint is quite exposed, and is lying submerged in a pan of water containing a little carbolic acid. The child has little or no fever; the joint is not the least swollen, more than it was on the day of operation. The child sleeps well. The submersion was to-day discontinued. The result must be a matter of long time, even if all goes well under the circumstances.

Plantar Sarcoma.—A man, between 30 and 40, had scattered over the skin, under the heel, some little pea-like nodules of new growth. Under chloroform, one was cut out for examination, while the raw surface and the other nodules were freely cauterised with red-hot irons. On May 6th, the operated surface consisted of grey and black sloughs. The assistant told me that this was a melano-sarcoma, consisting of epithelial-like cells, very large, with a sort of compound nucleus, or rather a number of nuclei closely huddled together in the centre of each cell; moreover, each cell contained pigment-granules. He said that as yet the instances of this tumour occurring to Billroth had all appeared on the plantar surface.

Metro-hæmatoma from Retained Menstrual Blood.—A girl, aged 18, was laid on the table, having a perceptible uterine tumour—*i.e.*, to the touch. It consisted of a central and a smaller lateral swelling. The cervix uteri was quite impervious; therefore, under chloroform, Billroth made a small puncture with a scalpel. After a little trouble, he let out the characteristic chocolate-like stuff, and allowed it to ooze unhurried. The patient kept quiet and very well the next day. May 6th.—She is very ill with peritonitis, and vomited, or rather retched, much, a little bile coming up now and then. She has fever, and a short pulse—by no means feeble, but frequent. She will probably sink.

Giant-celled Sarcoma of Lower Jaw.—This occurred in a little girl of about 12. It was median, the bone at the chin being about twice as large as it should be. An incision was made under the chin transversely for about four inches; the bone was freed, and as much of the jaw as was included between the canine teeth of each side inclusive, was removed with the chain-saw. Section of the mass showed flesh-like areas—all included in an outer shell of bone, with an in-projecting bridge or two. The wound was sewn up and simply dressed. May 6.—The wound has healed by first intention, except at one corner, where it is nearly healed. The girl is in a private ward, on account of a clearly marked erysipelatous blush on her right cheek; she is doing

well. No periosteum was left here, covering the removed bone; so she will have to make the best of what fibrous cicatrix forms between the two halves of her jaw. One of the assistants did the operation, Billroth giving up to them the simpler operations, such as amputations, etc.

Vienna, 7th May, 1871.

STUDENT MOB-LAW IN VIENNA.

[FROM A CORRESPONDENT.]

THE Medical School in Vienna has just been the scene of a disgraceful performance, which reflects no credit upon any of those concerned in it. The circumstance is an important one, and cannot fail to be suggestive to those who have to do with education and examinations.

Professor Karsten has long held the Chair of Botany in the University, and is also the Examiner in Botany at the first "Rigorosum." He is an excellent botanist; but as a teacher he is about as bad as can be, and as an examiner he is unflinchingly severe. A very large number of students, well prepared in the subjects more immediately connected with their profession, have been again and again rejected by him in what they considered a subject of but secondary importance, and that after but very meagre instruction in it. Hence there has long been kindling a hidden fire, which, not a little fanned by the knowledge of the recognition of the injustice by other more honoured professors—their beloved Oppolzer having said that he should be "plucked" if he had to pass in botany—burst forth into a flame on Tuesday, May 2nd. At five o'clock, his lecture-room and the passages leading to it were thronged with students. On finding that Prof. Karsten would not lecture, they proceeded *en masse*, with shouts of "Pereat Karsten," to the door of the examination-room, where Professor Braun, Dean of the Medical Faculty, was conducting a "Rigorosum." Professor Braun appeared and requested them, if they had any grievance, to send a deputation to him on the subject, promising that it would receive every attention, and that the names of the students comprising the deputation should not be disclosed. They retired to the lecture-room to consider what course they should pursue; but before a determination had been come to a cry of "Karsten is here" was heard, which quickly broke up the assembly, and the students rushed once more to the door of the examination-room. There they waited patiently. As soon as Professor Karsten showed himself, he was met with such a salutation of "Pereat Karsten" as to make him quickly retire into the room again. When it was dark, at about eight o'clock, he ventured out on Professor Braun's arm, but was instantly recognised by sentries, whose signals brought the whole crowd of students round him ere he could gain Professor Braun's carriage. He was very roughly treated, being pushed and squeezed, and, according to some accounts, beaten with umbrellas. Professor Braun at last succeeded in getting him to his carriage and quickly drove him out of reach of his infuriated pupils.

Next day, the students accepted Professor Braun's proposal, and forwarded a petition through him to the "Professoren Collegium," to the following effect.

1. That a complete knowledge of medical botany was impossible, on account both of the extent of the subject and the want of a suitable text-book.

2. That Professor Karsten's lectures did not supply the latter want.

3. That the pædagogic performances ("pädagogischen Leistungen") of this professor were utterly incompatible with his requirements from candidates at their examinations.

The professors of the Medical Faculty met yesterday specially to consider the matter. The meeting lasted from three o'clock till eight, but the result of their deliberation has not yet transpired.

Vienna, May 8th, 1871.

* * The publication of these letters from Vienna was postponed last week through want of space.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Queen's Hotel, Birmingham, on Tuesday, the 6th day of June, 1871, at 3 o'clock *precisely*.

A meeting of the Subcommittee of Branch Secretaries—consisting of Mr. Bartleet, Dr. Bryan, Mr. Reginald Harrison, Dr. Henry, Mr. Hodgson, Mr. Nicholson, and the General Secretary—will be held on the same day, at the same place, at 10 o'clock A.M.

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary*.
13, Newhall Street, Birmingham, May 16th, 1871.

METROPOLITAN COUNTIES BRANCH: ORDINARY MEETING.

AN ordinary meeting of this Branch will be held at the rooms of the Medical Society of London, 32A, George Street, Hanover Square, on Wednesday, May 24th, at 8 P.M.; T. HECKSTALL SMITH, Esq., F.R.C.S., President, in the Chair.

Dr. A. P. STEWART will read a paper on Sanitary Organisation, as viewed by the Joint Committee of the British Medical and Social Science Associations, the Royal Commission, and the Government.

A. P. STEWART, M.D.
ALEXANDER HENRY, M.D. } *Honorary Secretaries*.

London, May 10th, 1871.

BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of the session will be held at the York House, Bath, on Thursday evening, May 25th, at 7 P.M.; CHARLES BLEECK, Esq., President, in the Chair.

R. S. FOWLER, }
E. C. BOARD, } *Honorary Secretaries*.

6, Belmont, Bath, May 3rd, 1871.

EAST YORK AND NORTH LINCOLN BRANCH.

THE annual meeting of the above Branch will be held on May 31st, 1871, at the Hull Infirmary. Gentlemen wishing to read papers will kindly send the titles to

ROBERT H. B. NICHOLSON, *Honorary Secretary*.
21, Albion Street, Hull, May 1871.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE annual general meeting of the above Branch will be held at the Great Western Hotel, Birmingham, on Friday, June 16th, at 3 P.M.; when an address will be delivered by the President, Mr. OLIVER PEMBERTON.

Members have the privilege of introducing their friends, being qualified members of the medical profession.

The members and their friends will dine together afterwards, at five o'clock punctually.

Gentlemen intending to be present at the dinner, will be good enough to communicate as early as possible with the Honorary Secretary.

Dinner tickets, inclusive of waiters and dessert, 7s. 6d.

Members whose subscriptions are not yet paid, are earnestly requested to pay them at or before the annual meeting.

T. H. BARTLEET, *Honorary Secretary*.
8, Old Square, Birmingham, May 1871.

SOUTH MIDLAND BRANCH.

THE annual general meeting of the above Branch will be held at the General Infirmary, Northampton, on Tuesday, June 27th, at 1 P.M.: Dr. WM. CLARK, President, in the Chair.

Gentlemen intending to read papers (not to exceed fifteen minutes in reading), are requested to send the titles forthwith to Dr. Bryan, Honorary Secretary.

Members whose subscriptions are not yet paid, are earnestly requested to pay them at or before the annual meeting.

J. M. BRYAN, M.D., *Honorary Secretary*.
Northampton, May, 1871.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: ANNUAL MEETING.

IN the circulars recently issued to the members of this Branch, by an oversight the place decided upon for the annual meeting was not named. It will be held at Swansea.

ANDREW DAVIES,
ALFRED SHEEN, M.D., } *Honorary Secretaries*.

May 16th, 1871.

SHROPSHIRE SCIENTIFIC BRANCH.

AT a meeting of this Branch held in the Museum, Shrewsbury, on May 1st, the President, J. D. HARRIES, Esq., was unanimously chosen as the representative of this Branch, to act with the Parliamentary Bills Committee of the Association.

CORRESPONDENCE.

DEATHS FROM ANÆSTHETICS.

SIR,—As a member of the medical profession in Edinburgh, I tender you thanks for having drawn attention to this subject, and for having asserted the principle that all cases of death, or even of serious symptoms approaching those of impending death, from chloroform and other like agents, should be reported. The reticence of the official reporters as to past deaths from chloroform in the Edinburgh Infirmary gave to your recent statement—that you have reason to believe there have been five deaths there from chloroform—the character of a disagreeable surprise. I presume that, as you have now repeated that statement publicly twice or thrice, continued silence on the part of the surgeons and pathologists of the Infirmary implies assent. It is unquestionably desirable in the interests of science and of humanity, and of perhaps smaller but still considerable professional interests, that the facts which you assert should be known. Nor, indeed, can they be too widely known. Reticence has the effect not only of blinding patients and surgeons generally to the extent of a risk which ought to be revealed to them in its fullest proportions, but of unduly affecting the individual practitioner in whose private practice such a sad accident may occur. It vitiates statistics. It does more: it invites us to an unknown danger, and perhaps involves us in undeserved blame. It reacts, too, upon the private practitioner. If great institutions fail to publish their misadventures, notwithstanding the extent to which their responsibility is shielded by the multitude of officials concerned and the assumed sufficiency of all their arrangements, the private practitioner, open to question on all these points, and liable in a greater degree to personal injury from misapprehensions, is strongly tempted to follow the example. If the public believed that in the Infirmary, during a long course of years and in a great series of operations, no fatal accident had occurred, it is obvious that, spite of all explanations, unexpressed blame might easily be supposed to attach to me as a private surgeon if I should meet with one. I should like very much to hear the whole truth about accidents from anæsthetics, not only from the officials of the Edinburgh Infirmary, but from those of all our Scottish Infirmaries; especially after your observation that, from the absence of inquests here, they are more likely to have passed unrecorded here than in England. I venture to suggest that it is a duty on the part of the surgeons of these institutions to see that these records, for which you tacitly call, should be given to the profession, and best in your pages, which contain the chief and least incomplete record of the history of anæsthetics, their uses and dangers.

Edinburgh, May 16th, 1871.

I am, etc., F.R.C.S.E.

SIR,—Though the reports of the proceedings of the Edinburgh Medico-Chirurgical Society supplied by your correspondent are in the main accurate, they are far too brief to be made the subject of any comments, editorial or otherwise, with any profit. For instance, in the comments under the above heading in your number for May 13th, you state that the opinion that it is the safest plan to administer nearly pure chloroform at the onset was formally enunciated by Dr. Simpson and distinctly contested by Dr. George Balfour, leaving it to be inferred from the context that I approve of the principle of Clover and Snow. Now, a reference to the extended report of the Society's proceedings, contained in the May number of the *Edinburgh Medical Journal*, p. 1034, will show that I agreed with Professor Simpson, that the more rapidly a patient was brought under the influence of chloroform there was the less danger of poisonous saturation—beyond the power of recovery—but I also stated that this mode of administration was “no efficient preventive of death, which had occurred alike under the use of Morton's inhaler, supplying pure chloroform alone, and of Snow's, supplying only from three to four per cent. of the anæsthetising vapour”. Further, as if to show the inutility of all modes of administration in preventing occasional death, I may mention that one of the earliest deaths from chloroform occurred at Newcastle, where the patient's head was enveloped in a tablecloth; and one of the latest at Alloa, where Sir James Simpson administered the chloroform *guttatim* on a thin napkin stretched over the mouth and nose.

Moreover, I by no means asserted that the real source of the danger in Dr. Gillespie's case lay in the state of the right side of the heart, but merely mentioned that this case was another remarkable confirmation of Dr. Richardson's views in this respect, further stating that the general *post mortem* history of the case was precisely that of acute poisoning by

chloroform, as described by Casper. I am continually in the habit of employing chloroform for the relief of angina and of cardiac asthma even in patients with seriously damaged hearts, and know no pathological condition capable of rendering its cautious employment dangerous, though unquestionably there are many which render recovery from an accidental overdose less likely; and dilatation of the right heart I believe to be one of these. Death under chloroform occurs in various ways; and, before any profitable discussion on its causes can be available, the cases must be all classified and their relative frequency ascertained; while, from the absence of reliable data in most of those recorded, this classification must be begun *de novo*. Mr. Bickersteth has shown that many cases die from reflex spasm of the heart, when the patient has had too little chloroform. Casper has shown that many die from cardiac paralysis from an overdose of the anæsthetic, while he has also shown the probability of a chronic chloroform-poisoning in those who have died some days after prolonged chloroform inhalation. Possibly some midwifery cases, whose deaths have been registered under the vague term of toxæmia, may belong to this category. Death beginning at the lungs from paralysis of the pneumogastric is said to occur; and it is also alleged by some that chloroform may prove fatal by death beginning at the brain. I myself have recorded a remarkable case (*Ed. Med. Jour.*, vol. viii), in which the patient sank gradually—from exhaustion, as was supposed—after ligature of the femoral artery under chloroform. After death the trachea was found filled with vomited matters. In the causation of all these modes of death pathological alterations play only a very secondary part, while the relative dose of chloroform seems to be no unimportant matter. In the paper referred to, I have pointed out that the most probable reason for the immunity of parturient women from death by chloroform seems to be that we have in its action on the uterine pains a most efficient test of the saturation of the patient's system; for, as the heart's action remains unaffected long after the suspension of uterine pains by anæsthetics, and as the slightest interference with these pains is the signal for the withdrawal of the chloroform, we have thus established a positive immunity from sudden death from chloroform during labour. In regard to death from chronic poisoning by chloroform the case is, however, different; and, as I have already said, it is possible that some deaths, at all events, following parturition belong to this category. That the parturient state itself presents no insuperable obstacle to chloroform-poisoning, is proved by one or two well-known cases in which death occurred under chloroform administered during labour by unprofessional parties. I have no wish to prejudge the case; but I am inclined to think that, when acute chloroform-poisoning follows its careful administration, irregular respiration will be found to play no unimportant part. A patient breathing in a shallow manner gradually approaches the anæsthetic state when, by accident, he makes several deep inspirations and falls lifeless. A sudden gush of anæsthetic vapour has saturated the blood in the lungs, and as the heart, drawing its supply thence, first feeds itself, it is at once irrecoverably paralysed.

Anxiety to shield themselves from the charge of carelessness, more perhaps than their desire to defend the use of the drug, has led most of those who have been unfortunate to seek an excuse for the death in pathological alterations. My own experience leads me to believe this excuse to be most problematical. I have not the slightest doubt that hundreds of hearts far more fatty, far more diseased in every way, than those of the few unfortunates, have borne with impunity a moderate infusion of chloroform-vapour. Nay, more, I have seen an aged patient, purple from cardiac asthma, and within three days of her death from cardiac disease, have her colour and her pulse restored immediately after a few whiffs of chloroform; and I also know that it has occasionally rescued from apparently impending death patients labouring under acute peritonitis; and that, in the puerperal form of that disease, it has restored, temporarily, the pulse to the wrists of those who were actually moribund, and in whom it had previously disappeared.

Intoxication, for which anæsthesia is only a milder term, is not a condition much fraught with danger, though accidents occasionally happen even with the mildest agents. In the *British and Foreign Medical Review* for 1847, it is said, at p. 564, “Since Dr. Tait has been surgeon to our police force, not less than 27,000 have been brought to the police-offices *drunk*, and deeply so. Of these 27,000, *three* only have died”. *Three only*. I should be very much astonished to learn that the deaths from chloroform even now amount to one in 9,000; yet whisky is so safe an intoxicant that even when taken regularly to excess it does not prevent—in many cases at least—the attainment of a life far above the average. There ought, therefore, to be no reason why the occasional use of chloroform should ever be fatal if carefully administered, except from the imperfection which attends all human affairs. The power of the drug, which constitutes its great utility, forms also its chief danger; but there seems no reason to believe that greater care may not sur-

mount this danger, and equally little reason to hope that, for the present at least, any known drug less dangerous to administer can ever be equally generally useful.

Edinburgh, May 15th, 1871.

I am, etc.,

GEORGE W. BALFOUR.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN.

THE METROPOLITAN DISPENSARIES.

A POOR-LAW order (Metropolitan Dispensary order), dated April 22nd, 1871, has been issued. It provides rules for the management of dispensaries, and defines the duties of Poor-law medical officers. The medical officer is to attend daily for one hour at least, and longer if necessary. He must enter the hour of coming and of leaving. He must keep the Medical Relief Register and Index, which is to be open to the inspection of the medical officer of health, and of the local authorities. The order modifies the forms to be used by the relieving officer, to meet these arrangements; and provides for the appointment of a dispenser, who must either be an apothecary or be registered under the Pharmacy Act. The Poor-law does its official work after its own peculiar fashion; and to those who are particularly concerned in the order, it has not been communicated. It may, however, be procured by purchase of Knight and Co., 90, Fleet Street, the official publishers, who seem to speculate on the theory that the Poor-law Board will not communicate its orders to its medical officers, and that, sooner or later, when they come to hear of them, they will want to buy the text.

VACCINATION ARRANGEMENTS.

A POOR-LAW medical officer writes as follows. The recent alteration in the vaccination arrangements in the metropolis has placed me in a humiliating position. I am called upon to attend a woman suffering from small-pox, with an infant two months old at her breast. I am considered competent to attend the mother with small-pox; but, being deprived of my office as vaccinator, I am not considered the right person to vaccinate the child, though it is in imminent danger of dying of the mother's disease. This is not acting on the maxim that prevention is better than cure. The removal of the Poor-law medical officer from the office of vaccinator, not only lowers his status and lessens his emolument, but deprives the public of the means of immediately stamping out small-pox by the domiciliary vaccination of those who are dwelling in the midst of the epidemic; of the occurrence of which, the Poor-law surgeon has information prior to any other official.

POOR-LAW MEDICAL SUPERANNUATION.

A POOR-LAW surgeon writes to know if it is the custom of the Poor-law Board, before allowing a superannuation grant, to deduct the cost of drugs; and how a proximate estimate of drugs can be obtained when club and private practice have been conducted together for twenty years, and no accounts kept. It is the custom of the Poor-law Board to deduct, from the very scanty and inadequate salary, the cost of drugs. The time is, it is to be hoped, not far distant when the cost of drugs will be defrayed by the guardians; and then the question of the amount of superannuation will be based exclusively on the salary. In cases where extras are allowed, of course it is perfectly equitable to compute the average as salary, and claim superannuation on the total amount. Should a Poor-law surgeon fail to estimate the cost of drugs, it, no doubt, would be done for him by striking an average with places where drugs are paid for by the guardians, and where medical men are not deterred from prescribing by the cost of drugs. This would be evidently unfair, and prove to the disadvantage of a poor surgeon.

THE DR. DEFRIEZ DEFENCE FUND.

THE contributions acknowledged below have been received:—Dr. Sarvis, £2 2s.; Mr. Massingham, £2 2s.; Dr. Morell Mackenzie, £2 2s.; Messrs. Smart and Moore, £2 2s.; Mr. Welch, £1 1s.; Dr. C. Richards, £1 1s.; Mr. Davey, £1 1s.; Mr. Adams, £1 1s.; Mr. Brotherton, £1 1s.; Mr. Meldola (the late), £1 1s.; Mr. Gayton, £1 1s.; Dr. Stallard, 10s. 6d.; Mr. Lane, 10s. 6d.; Mr. Bate, 10s. 6d.; Mr. James, 10s. 6d.; Mr. Stuart, 10s. 6d.; Mr. Reilly, 10s. 6d.; Mr. Schmidt, 10s. 6d.; Mr. Dilworth, 10s. 6d.; Mr. Benson Baker, 10s. 6d.; Dr. Thomas, 10s. 6d. Further sums in augmentation of the Fund will be gladly received, and duly acknowledged, by the Treasurer, Dr. T. Sarvis, 350, Bethnal-green Road.

PETITIONS sent for presentation to the House of Commons should be sent to them at the House in separate wrappers, marked on the outside as petitions. They are then retained as petitions, which is convenient to members. They need not be stamped.

WE regret to see that Dr. Ransom, of Cambridge, has brought before the Board of Guardians charges against Dr. Buckenham of neglect of his duty as Union Medical Officer; which charges, on investigation, have been decided to be without any foundation. The course taken by the guardians in the matter has been very creditable. It is unnecessary to comment upon that taken by Dr. Ransom.

VACANCIES.

DOLGELLEY UNION, Merionethshire—Medical Officer for the Dolgelley District.
HENLEY UNION, Oxfordshire—Medical Officer for the Nettlebed District.
KEIG, Aberdeenshire—Parochial Medical Officer.
KENDAL UNION, Westmorland—Medical Officer for the Kirkby Lonsdale District.
NARBERTH UNION, Pembrokeshire—Medical Officer for District No. 3.
NORTHLEACH UNION, Gloucestershire—Medical Officer for the First Division of District No. 3.
PORTSEA ISLAND UNION—Medical Officer for the Southsea District.
ST. OLAVE'S UNION—Two Dispensers.
TULLYNESLE and FORBES, Aberdeenshire—Parochial Medical Officer.
WORKSOP UNION, Nottinghamshire—Medical Officer and Public Vaccinator for the Whitwell District.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION, IRELAND.

THE first Annual Meeting of this Association will take place on Monday, June 5th. Full particulars may be obtained from Dr. Maunsell, 1, Harrington Terrace, Dublin. Gentlemen wishing to join this Association will forward their subscriptions to Dr. Speedy, 28, North Frederick Street.

A COMPARISON OF ENGLISH AND IRISH LAWS.

FOR the purpose of clearly showing the discrepancies between the laws in England, Scotland, and Ireland, as regards the remuneration of medical men for the examination of alleged dangerous lunatic asylums, and the superannuation allowance of the medical officers of lunatic asylums, the Poor-law Medical Officers' Association of Ireland has, in an appendix to a circular, given extracts from the Act of Parliament bearing on these points. From these, the state of the matter is seen to be as follows.

EXAMINATION OF ALLEGED DANGEROUS LUNATICS.—*England.*—By 1 and 2 Vict., cap. 14, sec. 2, any two justices are empowered to call to their assistance a physician, surgeon, or apothecary; and, if satisfied that such person is insane or a dangerous idiot, they shall cause him to be placed in the county lunatic asylum..... It shall be lawful for them to make an order on the overseers and churchwardens, or upon the treasurer of the county, city, borough, or place, to pay all reasonable charges of examining such person and conveying him to the asylum. Again, by 16 and 17 Vict., cap. 97, section 69, provision is made that a justice or justices may make an order on the guardians for (*inter alia*) the payment of such reasonable remuneration to any physician, surgeon, or apothecary, for the examination of the alleged lunatic..... as to the justice or justices may seem proper. *Scotland.*—By 25 and 26 Vict., cap. 54, sec. 15, the sheriff of a county, on granting a warrant to commit a lunatic to an asylum, shall pronounce a judgment finding the amount of the expenses, and shall grant a decree for such expenses against the parish. The warrant, it is provided, is to be granted on application from the procurator-fiscal or some other person, accompanied with a certificate from a medical person that the lunatic is in a state threatening danger. *Ireland.*—By 30 and 31 Vict., cap. 118, sec. 10, it is provided that the justices shall call to their assistance the medical officer of the dispensary district, who shall examine such person without fee or reward. If the medical officer certifies that the person is a lunatic, the justices may direct the removal of the latter to an asylum.

SUPERINTENDENT RESIDENT MEDICAL OFFICERS OF LUNATIC ASYLUMS.—*England.*—By 25 and 26 Vict., cap. 97, sec. 12, the power of granting a superannuation allowance to any person that has been an officer or servant in an asylum, may be exercised when any such person has been an officer or servant for not less than fifteen years. The annual amount of superannuation shall not exceed two-thirds of the salary payable at the time of retirement. *Scotland.*—The period of service and amount of remuneration are the same as in England. *Ireland.*—By 30 and 31 Vict., cap. 118, sec. 8, provision is made for

granting superannuation allowances to the officers and servants of district lunatic asylums, according to the principles laid down by the Superannuation Act, 1859.

The Superannuation Act, 1859 (22 Vict., cap. 26), by sec. 2, provides that the rate of allowance shall be for ten years and under eleven years, an annual allowance of ten-sixtieths; for eleven and under twelve, an allowance of eleven-sixtieths; and in like manner a further addition of one-sixtieth for each additional year of such service, until the completion of a period of service of forty years, when the annual allowance of forty-sixtieths may be granted, and no addition shall be made in respect of any service beyond forty years. The Commissioners of the Treasury (in computing the amount of superannuation to persons holding professional and other special offices) may direct that when any person holding office shall retire from the public service, a number of years not exceeding twenty shall be added to the number of years during which he may have actually served.

VACANCIES.

BAILIEBOROUGH UNION, co. Cavan—Medical Officer and Public Vaccinator for the Termon Dispensary District.

KILRUSH UNION, co. Clare—Medical Officer for the Workhouse; Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Kilrush Dispensary District.

MITCHELSTOWN UNION, co. Cork—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Mitchelstown Dispensary District.

OLDCASTLE UNION, co. Meath—Medical Officer and Public Vaccinator for the Ballyjamesduff Dispensary District.

OUCHTERARD UNION, co. Galway—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Lettermore Dispensary District.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Friday, May 12th.

THE SMALL-POX EPIDEMIC.—Lord Buckhurst asked if it was the intention of Her Majesty's Government to propose any additional precautionary or remedial measures to check the spreading of small-pox in the metropolis; and also moved for a return of the number of births, and of the number of children vaccinated, in the metropolitan districts during the year ending December 31st, 1869.—Lord Oranmore drew attention to the complete success which had attended the efforts to stamp out the disease in Ireland.—After a few words from Lord Lyttelton, the Earl of Kimberley could confirm the statement of Lord Oranmore with respect to the success of the system of vaccination in Ireland. Small-pox had almost disappeared in that country, but in England the Vaccination Act had not had the same success; and he feared that this result must in part be attributed to the fanatical agitators, who had persuaded a considerable number of misguided people to resist the law; and in that respect, we had great reason to be ashamed of ourselves as compared with the people of Ireland. The Poor-law Board had, before the outbreak of the epidemic, called the attention of the Boards of Guardians to the necessity of taking steps to carry out the Compulsory Vaccination Act, and had recommended the appointment of inspectors to enforce it. That course had been adopted, and had been attended with considerable success. The Government were of opinion that the present law could not be improved or amended. It seemed to them that what was wanted was that it should be thoroughly enforced. And he was informed by the Poor-law Board that they believed the Boards of Guardians were doing their best to enforce the Act, and that in this they were receiving important assistance from the inspectors appointed by the Privy Council to look after the sanitary state of the metropolis. A Committee of the House of Commons were now considering the subject, and would soon agree to their report. Any suggestions they might make would receive the immediate attention of the Government; while a Bill which was now passing through Parliament would facilitate the establishment of an additional small-pox hospital in a ship which the Admiralty were prepared to lend. There was no objection to the production of the returns for which the noble lord had moved.—The Earl of Malmesbury remarked that the small-pox epidemic had now extended from London to the country, and insisted upon the necessity of enforcing the law with respect to vaccination more stringently than had hitherto been done. Power ought to be taken to compel all classes, high or low, to have their children vaccinated; and inspectors should be appointed to see that the law was carried out.—Lord Portman drew attention to the necessity of securing an adequate supply of vaccine matter. At present, it was frequently difficult to procure lymph.—The Marquis of Salisbury suggested that, instead of fining persons for not having their children vaccinated, a policeman should be sent to fetch the child and take it to the vaccinator.—The motion was agreed to.

Tuesday, May 16th..

THE ANATOMY ACT (1832) AMENDMENT BILL passed through Committee.

LUNACY REGULATION (IRELAND) BILL.—The Commons' amendments were considered and agreed to.

HOUSE OF COMMONS.—Thursday, May 11th.

CONTAGIOUS DISEASES ACTS.—Sir J. Elphinstone asked the hon. member for Cambridge whether he meant to bring on his motion on this subject, which stood for Tuesday, the 16th.—Mr. W. Fowler said he had been informed that the report of the Commission on that question would very shortly be issued, and he had acceded to a representation made to him that it would be advisable not to proceed with his motion on the 16th. He reserved to himself, however, the right of bringing it on should the presentation of the report of the Commissioners be delayed.

Monday, May 15th.

THE LUNATICS (SCOTLAND) BILL was read a third time.

Tuesday, May 16th.

THE SANITARY LAWS.—Sir C. Adderley postponed his motion relative to the consolidation of the sanitary laws, from Tuesday the 6th, to Tuesday the 13th of June.

OBITUARY.

THOMAS BROWN, M.R.C.S. Eng.

MR. THOMAS BROWN, who died on the 15th April, was born in London in 1803. He was apprenticed to Mr. Lewis of Haydon Square; and received his medical education at the then united Borough Hospitals. In 1825, he commenced practice in St. Mary Axe, where he continued till his death. He took great interest in the progress of his profession; and was of a benevolent and amiable character. He was for many years a member of the Council of the Hunterian Society, and became Treasurer on the retirement of Mr. Cock. He has left a numerous family: among his sons are Dr. Burton Brown, now Principal of the Medical College at Lahore, and Mr. Gordon Brown, lately his father's partner and now his successor.

CHARLES E. V. GOATE, M.D., OF COVENTRY.

DR. GOATE died on April 5th. He was an intelligent, active, most indefatigable practitioner, a good surgeon, and able physician. On resigning the post of Medical Officer to a large district in the Ledbury Union, he obtained the unusual distinction of receiving a testimonial from the Board of Guardians in recognition of his assiduous attention to the poor. He obtained the esteem and confidence of his private and pauper patients alike. Having contracted typhus fever from a patient, he died after a week's illness, during the last three days of which he was unconscious.

ALEXANDER COCHRAN, M.D., OF AUCHTERARDE.

DR. COCHRAN was born at Linwood, nearly Paisley, in 1814. He attended the classes at the Glasgow University, where he graduated in 1844. After having a voyage to the West Coast of Africa, he established himself in Auchterarder, where he was much respected, and had a most extensive practice among all classes. About a year ago, his horse ran away with the gig in which he was; and, the toll-bar being shut at night, he was thrown violently out of the gig, his head striking the road. He afterwards sometimes complained of pain in the head, but did not think that denoted any serious injury. Three weeks prior to his death, he felt unwell, and was partly in bed, when he received a telegram to go about ten miles. On his return from the journey, he felt very weak, and was drenched by the heavy rain. Congestion of the brain, attended with unconsciousness, set in, and he died on April 24th, at the age of 56.

HENRY C. KINGSTONE, M.B., SURGEON BOMBAY ARMY.

DR. H. C. KINGSTONE was born in July 1828, at Moorstown, co. Longford. He received his professional education in the medical schools in Dublin and Edinburgh, and became M.B. of Trinity College, Dublin, in 1853. In 1856, having passed the examination, he was admitted to the late East India Company's Medical Service, and in the following May proceeded to Bombay, where he served both in some of the vessels of the late Indian Navy and in various regi-

ments. In 1863, he was sent home invalided, and returned to India in the end of 1865. In 1866, he was appointed acting deputy assay-master to the Mint at Bombay. In 1869, in the hope of deriving benefit to his health from the voyage, he sailed from Bombay to Australia and back. In the winter of 1871, the disease under which he had been so long labouring became aggravated; hæmorrhage from the lungs set in, and proved fatal at the end of three days. He died at Fort George, Bombay, on March 31st.

LEWIS EVANS, ESQ., OF DOLGELLEY.

MR. LEWIS EVANS, who died at Dolgelley on April 29th, at the age of 91, was a pupil of Sir Astley Cooper and Mr. Cline at St. Thomas's Hospital in the early part of this century. He was medical officer to the parish of Dolgelley for upwards of sixty years—a length of tenure of office which can be equalled in but very few instances.

JOHN ROSS, F.F.P.S., OF BUSBY.

THE death of this excellent practitioner and most worthy man, which occurred at Busby, near Glasgow, on the 2nd April, is entitled to more than a mere passing notice. Mr. Ross became a Licentiate of the Faculty of Physicians and Surgeons of Glasgow in 1828. Shortly afterwards he commenced practice in the village of Busby, and soon succeeded in gaining the confidence of the community, which he never lost. He was an enthusiast in the study of botany, of which he had an extensive and accurate knowledge, particularly of the mosses and lichens. Occasionally he contributed papers to the medical journals: the last, we believe, was an interesting case of severe injury to the cranium, with loss of brain-substance, terminating in recovery (*Glasgow Medical Journal*, vol. xiii). These contributions, however, written at snatches of leisure, give a very imperfect idea of his abilities and professional attainments.

For nearly forty years his name has been associated with every movement of an intellectual, moral, or philanthropic kind. Among the circle where his influence extended he was an apostle of temperance; and, notwithstanding his constant engagements, he found time to organise popular lectures, to originate a penny savings' bank, and, in short, to act as pioneer in everything having for its object the good of the industrial community among whom his lot had been cast. Whatever he undertook he followed out with an energy that was untiring; and there is too good grounds for believing that the strain of so many exertions had something to do with the illness which at the close of the year 1869 laid him aside from all active effort, and has at last removed him in his sixty-third year.

His services were highly prized by the inhabitants of Busby, who in 1859 presented him with a handsome service of plate, a telescope, and magnificent microscope, in token of their esteem for him as a man, and of their sense of the obligations they were under for his long and unwearying labours among them.

In 1865, Mr. Ross was elected a Fellow of the Faculty of Physicians and Surgeons of Glasgow.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on May 16th.

Atkinson, Alfred James, Kew Green (University College)
Bovill, Edward, James Street, Buckingham Gate (Guy's)
Cottle, Ernest Wyndham, Southampton (St. George's)
Drake, Cecil, St. Ives, Cornwall (Charing Cross)
Furner, Willoughby, Brighton (St. Bartholomew's)
Horsford, Joseph Alphonsus, Penzance (University College)
Iredell, Charles Lesingham Maynard, Cheltenham (St. Bartholomew's)
Johnston, John, Newcastle (Newcastle School)
Johnson, William Murray, Valparaiso (King's College)
Jones, Hugh Thomas, Gaerwen, Anglesea (Dublin School)
King, Aloysius Joseph, Bath (Bristol School)
Law, William Thomas, Edinburgh (Guy's)
Morris, Richard Thomas, Rochdale (Manchester School)
Newington, Herbert Francis Hayes, Ticehurst (University College)
Norbury, Thomas William, Macclesfield (University College)
Nunn, Philip William Gowllett, Caversham Road, N.W. (St. Bartholomew's)
Powell, Lionel Lewis, Melton Mowbray (University College)
Smith, George Augustus Cooper Vernon, Paddington (St. Mary's)
Thorpe, Lewis, Walsall (Birmingham School)
Trent, Thomas, Lower Tooting (St. George's)
Waldo, Henry, Clifton, Somerset (Bristol School)

Five candidates were referred to their hospital studies, having failed to acquit themselves to the satisfaction of the Court of Examiners.

Admitted members on May 17th.

Allen, Patrick Joseph, Mullingar, co. Westmeath (Dublin School)
Blaker, Walter Campbell, Crawley, Sussex (Guy's)
Collins, Henry William, Wington, Somerset (Guy's)
Cory, Robert, Carlisle (St. Thomas's)
Edmundson, Thomas Robert, Masham, Yorkshire (Guy's)
Ewart, John Henry, Upper Norwood (Guy's)
Kendall, Walter Benger, Stratford-on-Avon (King's College)
Ling, John Mitford, Saxmundham (University College)
Lloyd, William, Carmarthen (Dublin School)
Mayer, William Lewin, Highgate (London)
Rouse, Ezekiel, Bradworthy, North Devon (Edinburgh School)
Simon, Arthur Charles, Jersey (St. Bartholomew's)
Stevens, Mordaunt Augustus de Brouquens Capel, Paris (King's College)
Whistler, William McNeill, Brook Street, Grosvenor Square

Seventeen candidates out of 54 having failed to acquit themselves satisfactorily, were referred to their hospital studies for the usual period.

It is stated that the unprecedented number of 71 candidates for the Fellowship are at the present moment under examination.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 11th, 1871.

Currie, George, Madras Presidency, India
Iredell, Charles L. M., Cheltenham
Moore, Samuel William, Kennington
Stuart, Henry Ward, Woolwich
Thorpe, Lewis, Walsall

The following gentlemen also on the same day passed their first professional examination.

Brittin, F. G. M., London Hospital
Willis, George, St. Bartholomew's Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

BIRMINGHAM NEW HOSPITAL FOR WOMEN—Two Consulting Physicians; Two Consulting Surgeons; Four Acting Medical Officers.
CHARING CROSS HOSPITAL—Registrar.
CHELTENHAM GENERAL HOSPITAL and DISPENSARY—Resident Surgeon to the Branch Dispensary.
CHORLTON-UPON-MEDLOCK DISPENSARY—House-Surgeon.
CUMBERLAND INFIRMARY, Carlisle—House-Surgeon.
DREADNOUGHT INFIRMARY, Greenwich—Visiting Physician.
DUNDEE ROYAL INFIRMARY—Resident Medical Officer.
EAST RIDING OF YORKSHIRE LUNATIC ASYLUM, Beverley—Medical Superintendent.
MACCLESFIELD DISPENSARY—House-Surgeon.
NATIONAL EYE and EAR HOSPITAL and GENERAL DISPENSARY, Dublin—Ophthalmic and Aural Surgeon.
NORTH STAFFORDSHIRE INFIRMARY, Hartshill—Resident Medical Officer.
QUEEN'S HOSPITAL, Birmingham—Resident Physician and Medical Tutor.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Resident Medical Officer.
ROYAL KENT DISPENSARY, Greenwich—Resident Medical Officer.
ST. BARTHOLOMEW'S HOSPITAL—Lecturer on Mental Diseases.
SALFORD and PENDLETON ROYAL HOSPITAL and DISPENSARY—House-Surgeon.
SALOP INFIRMARY, Shrewsbury—Resident House-Surgeon.
SAMARITAN FREE HOSPITAL for WOMEN and CHILDREN—Physician for Out-patients.
SUNDERLAND GENERAL INFIRMARY—Assistant House-Surgeon.
UNIVERSITY OF DURHAM, College of Physical Science, Newcastle-upon-Tyne—Professor of Chemistry.
WINDSOR ROYAL INFIRMARY—House-Surgeon.
WORCESTERSHIRE—Analyst for.

[For Poor-law Vacancies see Poor-law Department.]

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

CALANTARIENTS, J. A., Esq., appointed House-Surgeon and Secretary to the Scarborough Dispensary and Accident Hospital, *vice* T. J. Denton, M.D., resigned.
HILL, Alfred, Esq., appointed Dental Surgeon to the Dental Hospital of London, *vice* Robert Hepburn, Esq., resigned.
MARTIN, Henry C., M.B., C.M., appointed House-Surgeon to the Seaman's Hospital, Greenwich (late *Dreadnought*), *vice* W. Macfie Campbell, M.B., C.M., resigned.
*WOOD, T. O., L.R.C.P. Edin. (Medical Superintendent of Dunston Lodge Asylum, near Newcastle-upon-Tyne), appointed Lecturer on Psychological Medicine in Newcastle College, Durham University, *vice* Dr. Hugh Grainger Stewart, Medical Superintendent of the Newcastle Borough Asylum, Cox Lodge, deceased.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

GRIFFITHS.—On May 11th, at Swansea, the wife of *T. D. Griffiths, M.B., of a son.
HARRISON.—On May 14th, at Walsall, the wife of *A. J. Harrison, M.B. Lond., of a daughter.

THE foundation-stone of the Ingham Infirmary, South Shields, is to be laid on Whit Tuesday.

OPERATION DAYS AT THE HOSPITALS.

MONDAYMetropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAYGuy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY...St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY...St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAYWestminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic Hospital, 2 P.M.

SATURDAY...St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Elam, "On Partial Acute Idiopathic Cerebritis"; Mr. L. S. Little, "On Subcutaneous Section in Bony Ankylosis of the Knee-joint."—Linnæan Society.

THURSDAY.—Royal Society.

FRIDAY.—Clinical Society of London, 8.30 P.M. A paper by Dr. Meadows; "On some cases illustrating the Treatment of Herniæ temporarily irreducible," by Mr. Holthouse; "On some cases of Partial and General Idiopathic Pericarditis," by Dr. Baümle.

EXPECTED OPERATIONS AT THE HOSPITALS.

LONDON HOSPITAL, Saturday, May 20th, 4.30 P.M. Ovariectomy, by Mr. Maunder.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with *halfpenny* stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

STUDENTS.—All foreign degrees which are not placed by the Medical Council in its schedule.

"LOCAL SURGEONS".—It is almost time that the gentlemen of the press learned to amend their opinion of "local surgeons". Such paragraphs as this, which we take casually from a daily paper before us, are too common for us to imply blame to the particular journal, or to omit declaring that they are highly unjust in essence and form to both the classes of professional men who are thus spoken of.—"A local surgeon set the limb; but the condition of the wound soon became very critical, and, notwithstanding surgeons from Plymouth were called in, the gallant officer died from the effects of the injury last night."

ROYAL COLLEGE OF SURGEONS.—The following were the questions submitted to the candidates at the recent Primary Examination:—1. Mention the bones which enter into the formation of the orbit; the foramina in its walls; and the parts passing through them, in their relative position.—2. Describe that part of the process of digestion which is effected in the Stomach.—3. Mention the muscles which surround the upper third of the Radius and Ulna; their relative positions, and the nerves supplying them.—4. State the different kinds of Epithelium by which the following mucous surfaces are covered: Nasal Duct; Superior Meatus of the Nose; Pharynx and Œsophagus; Gall-bladder; Pelvis of Kidney; Ureter, and Bladder.—5. The Deep Cervical Fascia. Describe its extent, connexions, and arrangement; specifying particularly its relations to the muscles and bloodvessels of the neck.—6. Describe the Superior Cervical Ganglion of the Sympathetic—its form, situation, and connexions. What effects result from its section?

DARLINGTON HOSPITAL.

SIR,—Will you be kind enough to give publicity to the following case? In the early part of January, a child, suffering from bronchitis, was treated from this dispensary. After a fortnight's illness, the child recovered. On Monday, May 8th, the father of the child (I had not seen the case for upwards of three months) called to ask for a death-certificate. The child had been complaining for a week or so; and he had taken it on the evening of Saturday, April 6th, to Mr. Williamson, High Row, who keeps drugs in addition to his ordinary goods. By this gentleman, some powders were prescribed. Two of these were administered, and the child died the following day. How is the death to be certified, and who is to do it? Of course I declined to give any certificate. Can the ignorant poor not be better protected? I am, etc., H. HARVEY, L.R.C.S. Russell Street, Darlington, May 10th, 1871.

* * Of course Mr. Harvey was right not to give a certificate in such a case.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. F. H. HEATHCOTE, not later than *Thursday*, twelve o'clock.

DEATH FROM ANÆSTHETICS.

A PROVINCIAL HOUSE-SURGEON asks: If nitrous oxide is used for minor surgical operations, as suggested in the BRITISH MEDICAL JOURNAL, in any metropolitan or provincial hospital? If so, what is the experience of the staff in respect to it?

E. F. G. would be glad if Dr. B. W. Richardson, or any other associate, would state his opinion of ether as an anæsthetic, and why it has been so largely superseded by chloroform.

AN OLD ASSOCIATE objects to our "alarmist articles upon anæsthetics"; and thinks the immunity from pain and the facility for performing grave operations have effected a great saving of life, which we leave out of account.

A METROPOLITAN ADMINISTRATOR OF CHLOROFORM states that Clover's apparatus is by no means so much used now, as it was when it had the charm of novelty. He bought one, which he would be glad to sell a bargain.

DR. KIDD writes to state that, five years ago, he described a case in which a breast was removed under nitrous oxide. [Dr. Marion Sims recorded such a case in the JOURNAL three years ago; but nitrous oxide is obviously not well fitted for prolonged operations.]

M.D. (Shrewsbury) asks where he can procure the requisite apparatus. Coxeter, Grafton Street East, Gower Street; Claudius Ash, and Sons, Broad Street, London.

WE have received a copy of the *Edinburgh Medical Journal* for 1866, which contains a full report of Dr. Gillespie's case of Death from Chloroform, read at the Medico-Chirurgical Society of Edinburgh.

T. L. B. informs us of a death from chloroform, "near Manchester", which came within his cognisance, but which has never been reported.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, May 13th; The New York Medical Record, May 4th; The Boston Medical and Surgical Journal, May 4th; The Madras Mail, March 6th; The Shield, May 13th; The Philadelphia Medical Times, April 26th; The Philadelphia Medical Independent, April 20th; The Galway Express, May 12th; The Mayo Constitution, May 13th; The Waterford Chronicle, May 12th; The Macclesfield Courier and Herald, May 13th; The Preston Evening News, May 15th; The Lincolnshire Chronicle, May 12th; The Freeman, May 13th; The Cambridge Chronicle, May 13th; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Mr. James Bird, London; Surgeon-Major Atchison, London; Dr. Sansom, London; Mr. Case, Fareham; Mr. Fernie, Macclesfield; Dr. Crace Calvert, Manchester; Mr. Haviland, London; Mr. Flower, London; Mr. Arnold, London; Dr. Kidd, London; Mr. W. K. Parker, London; Mr. T. Vincent Jackson, Wolverhampton; Mr. S. G. Sloman, jun., London; Surgeon-Major Saunders, New Brighton; Mr. Thomas Scattergood, Leeds; Dr. Broadbent, London; Dr. J. M. Bryan, Northampton; Mr. A. J. Harrison, Walsall; The Secretary of the Clinical Society; Mr. F. J. Barrett, Wolverhampton; Mr. C. F. Maunder, London; Dr. A. Fleming, Birmingham; Dr. Acland, Oxford; Dr. Young, Glasgow; Dr. Coats, Glasgow; Dr. Gardner, Box, Wilts; Mr. M. W. Fisher, Portarlington; Dr. Welch, London; Dr. A. P. Stewart, London; Mr. C. Gold, London; Dr. Mapother, Dublin; etc.

LETTERS, ETC. (with enclosures), from:—

Dr. George Johnson, London; Dr. T. L. Brunton, London; Mr. Erasmus Wilson, London; Dr. Bradbury, Cambridge; Mr. R. H. Meade, Bradford; Mr. T. Worth, Nottingham; Dr. T. Savage, Birmingham; Dr. Moon, Brighton; Dr. Gillespie, Edinburgh; Our Vienna Correspondent; Dr. D. T. T. Maunsell, Dublin; Our Glasgow Correspondent; Mr. T. Nunn, London; Dr. F. J. Brown, Rochester; The Secretary of the Epidemiological Society; Dr. Thorowgood, London; Our Edinburgh Correspondent; Dr. T. Snow Beck, London; Dr. H. W. Page, London; Dr. H. J. Yeld, Sunderland; M.D.; Dr. Alexander Robertson, Glasgow; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; The Secretary of the Royal Medical and Chirurgical Society; Our Dublin Correspondent; Dr. Woodward, Worcester; Messrs. Calvert and Co., Bradford, Manchester; Dr. Young, Birmingham; Mr. W. A. Jamieson, Berwick-on-Tweed; Dr. T. O. Wood, Gateshead; Mr. T. Watkin Williams, Birmingham; Mr. P. C. Smyly, Dublin; Mr. J. W. Moore, Dublin; Dr. George Balfour, Edinburgh; Mr. D. S. Moon, Dundee; Mr. Morris, London; Dr. Charles Parsons, Dover; Dr. Sarvis, London; Mr. Benson Baker, London; Dr. Snow, Shrewsbury; Mr. Denman, London; Dr. Paget, Cambridge; Mr. F. C. Mudd, Uckfield; Dr. B. W. Foster, Birmingham; etc.

BOOKS, ETC., RECEIVED.

The Fifteenth Annual Report of the State of the United Lunatic Asylum for Nottingham, 1870. Nottingham: 1871.

Report on the Sanitary Condition of Leeds for the Year 1870. Leeds: 1871.

The Sixth Annual Report of the Staffordshire Asylum for 1870. Lichfield: 1871.

Annual Report of the Aberdeen Royal Infirmary for the year 1870.

Lectures on Surgery. By James Spence, F.R.S.E. Parts III and IV. Edinburgh: 1871.

Analytical Tables for Students of Practical Chemistry. By J. Campbell Brown, D.Sc. (Lond.), F.C.S. London and Liverpool: 1871.

Contributions towards the Materia Medica and Natural History of China: for the use of Medical Missionaries and Native Medical Students. By Frederick Porter Smith, M.B. Lond. Shanghai and London: 1871.

The Principles and Practice of Midwifery, with some of the Diseases of Women. By Alexander Milne, M.D. Edinburgh: 1871.

THREE LECTURES

ON

THE PRINCIPLE OF LEAST ACTION IN NATURE,
ILLUSTRATED BY ANIMAL MECHANICS.*Delivered at the Royal Institution of Great Britain.*

BY THE

REV. SAMUEL HAUGHTON, M.D. Dubl., D.C.L. Oxon., F.R.S.,
Fellow of Trinity College, Dublin.

LECTURE I.—Tuesday, May 23rd, 1871.

Science of Animal Mechanics defined as the application of the principles of Geometry and Mechanics to Comparative Anatomy.—General Principle of Least Action, as observed in Astronomy and Physics.—Application of this principle to Animal Mechanics.—Illustration of the Pleasures and Difficulties of the Study of Animal Mechanics, from the Lecturer's Adventures in Search of the Coefficient of Muscular Force.

I TAKE it for granted that there is no one of those whom I now address who has not read both with profit and pleasure *Gulliver's Travels*. But of the many thousands that have read that charming book, there are very few that know the real circumstances of the history of its production. It is only a fragment of a much greater work which was contemplated and which the world has lost for ever—a work which was to have been the combined result of the genius of three of the most remarkable men that our country has produced; one an Englishman, another a Scotchman, the third an Irishman. More than 150 years ago, in the good old times when Queen Anne reigned in England, and science, literature, and art were patronised by her court, three of the most remarkable men that ever lived in this city were friends and companions. The Englishman was Pope, the Scotchman was Arbuthnot, and the Irishman—I may be permitted as a fellow-countryman to say, greater than either—was our illustrious Swift. It was proposed by Pope that a novel should be written by these three men, which would have been a novelty not only in that age of literature but in our own, by which the combined efforts of the genius of three such men should be brought to bear upon the production of a work of fiction. The fragments of that work of fiction remain at the end of the large editions of Pope's works under the name of *Memoirs of Martinus Scriblerus*. Pope was to have taught Martinus Scriblerus literature, logic, and metaphysics; Dr. Arbuthnot was to have taken charge of his medical education and have brought him to Holland and Germany to study medicine; while Swift was to have written his travels. *Gulliver's Travels* were produced as a separate work by Swift in consequence of the troubles at the close of the reign of Queen Anne, which scattered this remarkable triumvirate. The travels that were originally intended to illustrate the life and memoirs of Scriblerus appeared under the name of, and are known to you all as, *Gulliver's Travels*.

The accession of George I not only destroyed the prospect of the world seeing the memoirs and travels of Martinus Scriblerus, but it also lost for England the credit of producing a great work on Animal Mechanics. It can be shown from several passages in his writings, that Dr. Arbuthnot, who was himself a most skilful geometer and a most expert anatomist, had conceived the project of uniting these sister sciences of anatomy and geometry in one great science, and so creating a new field for discovery, for thought, and for research. His appointment as court-physician to George I withdrew him, I regret to say, from the ranks of science; and England lost, by his appointment to that office, the opportunity of producing a great work on Animal Mechanics. It was reserved for an Italian, Alphonso Borelli, one of the greatest men that modern times ever produced, to lay the foundations of this most remarkable science. Alphonso Borelli taught mathematics in the university of Naples at the close of the seventeenth century. He was also professor of anatomy in this same university; and his book shows that the union of anatomy and geometry had the honour of being approved by the Pope, and pronounced to contain nothing dangerous to faith or morals. He produced his remarkable book on Animal Mechanics, which he

entitled *De motu animalium*, in the year 1680; but he died before this book was produced, and he died also, unfortunately, without knowing what our distinguished countryman, Sir Isaac Newton, had discovered of the laws of the composition of forces. The result is that, although his book *De motu animalium* carries in every part traces of his brilliant genius, it is full of mistakes arising from the false notions on mechanics which were inevitable in the case of a person not acquainted with the composition of forces discovered by Newton. But it remains in its present state, with all its defects and errors, I say without hesitation, the only book that can be called a systematic scientific treatise on Animal Mechanics.

In later times an attempt was made by two remarkable Germans, who were brothers, Edward and Wilhelm Weber, professors of anatomy and mathematics in the universities of Göttingen and of Leipsic. From conversing together, these two men came to the conclusion that, if mathematics or geometry and anatomy could be brought into contact, the result would be the production of a third science, perfectly novel and of great value. They compared their observations and notes together and produced a treatise on the motions of the human body, which will always be quoted as a model of accuracy and a standard of scientific observation; but, from the necessary want of unity and uniformity produced by two minds being brought to bear upon the same subject instead of one, it cannot be regarded as so systematic or complete a treatise as that of the illustrious Borelli.

The progress of science of every description, and the extraordinary and interesting results that have been produced in recent times by the union of sciences apparently diverse from each other, have rendered it almost inevitable that now, in some quarter or other, a science of Animal Mechanics must arise which shall be worthy of being called an exact science, and worthy of taking its place amongst the most perfect of all our modern sciences.

In order to found such a science, the great want is the discovery of some general principle. I believe that I have succeeded in discovering the true principle on which this science must be founded, and have been enabled to sketch out the broad outlines of the foundation of such a science; though it must remain for abler mathematicians and more expert anatomists than I can pretend to be to fill up the details of the outline and bring them to the perfection at which I am confident they will ultimately arrive. The principle on which I propose to found the science of Animal Mechanics is a principle of almost universal application—it is called the Principle of Least Action. This is well known to mathematicians in its application to inanimate nature; and, with your permission, I will call your attention to one or two remarkable instances of the application of the principle of least action, well ascertained in physics and astronomy, before proceeding to apply it, as I hope to do in these lectures, to the study of organic nature, and particularly of muscular mechanics.

The celebrated Kepler, who died before Sir Isaac Newton's laws of gravitation were discovered, as must be well known to you all, discovered by patient observation the laws of the motions of the planets. He discovered, in particular, the important law that a planet revolves round the sun in an ellipse, the sun occupying a focus of this ellipse; and that every portion of the path of the planet is an ellipse, each portion of the path being characterised by a velocity of motion peculiar to itself, and different from that which is found in any other part. It is not necessary for me to describe to you the simple laws by which the motion of this planet varies; but if you will imagine a planet moving from point A to point B (diagram) in its path round the sun, Kepler succeeded in discovering that it moves along that path by regular laws, by a regular motion belonging to each part of that path, and never deviating from it. He published his celebrated laws, which are known as Kepler's laws, from which, in later times, Sir Isaac Newton deduced by mathematical demonstration the celebrated law of gravitation. It is extremely interesting to us who look back upon these discoveries with the reflected light which Newton's genius has thrown upon them, to read Kepler's writings, and see in what manner this remarkable man regarded his own discoveries. Kepler was a scholar as well as a mathematician; and he was a profound student of the *Timæus* of Plato, and he was charmed with that beautiful fiction in which Plato imagines the cosmogony of the world, and describes it as the Demiurgus persuading Chaos to become Cosmos; and ends by the assertion, bold for his age, considering that it was in opposition to the heathen mythology of the times, that the sun was an animal, the earth an animal, the moon an animal; that the gods, as Venus, Diana, and Mercury, were deities who were subordinate to these great beings. Kepler was caught with the beauty of this Platonic fiction. He imagines the earth swimming in her orbit round the sun as an animal with intelligence. He discusses in his book, *Harmonices Mundi*, the possibility of the earth seeing without eyes, and hearing without ears; and arrives at the conclusion that

the earth must be an animal, for three reasons. First, the earth moves uniformly on her axis, and none but an intelligent being could know how to keep uniformly moving without going faster at one time than at another. Secondly, he says, the earth, as he has proved by his laws, describes a particular path round the sun and no other, and moves with a particular velocity at each portion of that path; and this, he says, the earth can only do by observing the angles made by the heavenly bodies, calculating its position—going slowly when it had to go slowly, and fast when it had to go fast—by observing the planetary angles. Lastly, he says, the earth must be an intelligent animal, for the highest and best of all reasons, which he also learned from Plato—because the earth is a great geometer. The earth, he says, produces within her bosom crystals such as these which are before you, which are related to certain forms shown in the diagram—Euclidean solids capable of being inscribed in spheres. No creature, says Kepler, could know the mysterious properties of the solids inscribed in spheres, excepting an intelligent geometer. The earth produces crystals and forms closely related to these in her own bosom, and therefore by the maxim *de opifice testatur opus* (which we may translate by “the carpenter is known by his chips”), we come to the conclusion that the earth must be a geometer, for she produces perfect geometrical forms. Kepler goes further, and proceeds to discuss the question what sort of an animal is this earth? He says the earth is no lively animal like a lap-dog, ready to obey your nod; she is a sluggish, lazy, intelligent creature, like an ox, or perhaps, I should say, like an elephant. Now, a very remarkable fact bearing upon this is well known to mathematicians. The celebrated principle of least action, as it is applied in mechanics and astronomy, consists in showing that a certain integral $\int v ds$, v being the velocity at each point, and ds the elements of its motion, must be the minimum. If I take the points A and B in the planets’ path, s representing the sun, I only require to know those points A and B and the sun, s , to calculate for you, from the principle of least action—which I can do to the millionth part of an inch at each portion of this orbit—the path that the planet must describe, on the supposition that it is a lazy, intelligent animal, trying to swim round the sun in such a manner as to give the least trouble to itself. It is perfectly well known to astronomers that the imaginary idea of Kepler may be converted into a real fact; and that, if we grant the hypothesis that the earth is an intelligent animal swimming round the sun, we can calculate and predict its path as certainly as we could from the Newtonian law of gravitation.

Pondering this idea over in my mind, it seemed to me to afford in such a science as Animal Mechanics a possible key which would unlock the secrets of that science. It was an hypothesis invented by Kepler in the early ages of astronomy when more perfect hypotheses were impossible, but which, when carefully followed out, would lead to results as accurate and as perfect as the exact hypothesis; and the hypothesis I have to lay before you as the foundation of the science of Animal Mechanics is similar to that of Kepler, and will ultimately, I doubt not, be replaced by a higher and more perfect law, such as that with which Newton replaced Kepler’s law. My hypothesis is, that in every arrangement of bones, muscles, joints, and parts of animals, the arrangement must be such as—on the hypothesis that the muscles were a living intelligent thing, trying to save itself trouble—the motion would be. We can calculate, as I shall show you in the subsequent lectures, with a certainty as perfect as we can calculate the path of a planet, the positions of bones and sockets as we find them in nature. If, therefore, I can prove my hypothesis, we are entitled to regard it as a key for the present, to be substituted ultimately by some higher law, but a valuable and precious key to unlock for us the secrets of animal mechanics.

Before proceeding to apply it to the muscles, I must give you one or two more illustrations of it, to show you the power of the instrument which I propose to use. When a ray of light passes from one medium into another, it always describes a bent path. A ray of light passing from the air into a glass of water will be bent at the junction of the two bodies. Taking the point A (diagram) to be the ray of light in the air, and point B the ray of light in the glass, if I imagine the fiction that the molecule of light is a living, intelligent, lazy animal, trying to go from A to B with the minimum of trouble to itself, I can predict, as certainly as by the law of refraction and reflection, the path which it would describe. This principle has been actually applied—the principle of least action—by Sir Isaac Newton to discover the path of a ray of light. It will apply, as astronomers and mathematicians are aware, to many other branches of science; it will apply also, I believe, to the unconscious actions of intelligent animals like ourselves. Some years ago, I had the opportunity of observing an unconscious application of this remarkable principle made by an extremely unintelligent class of old women. These were the oyster-women of the Mumbles Harbour, near Swansea. These poor old creatures carried their baskets down to the oyster-beds empty; they filled the baskets with oysters, and then they had to carry

them to the Mumbles along a road which consisted of two parts; there was the slippery shingle of the beach where they collected the oysters, and after they left that slippery shingle there was a smooth common. Now, this placed the oyster-women in the same position as the ray of light. The velocity of the light in air and its velocity in water are different. The velocity of these poor women in the rough shingle, where they occasionally fell, and their velocity on the smooth road, were, as you may suppose, also different, and the friction different. I saw these poor women, to my great amazement, not going from point A to point B as I should have done, nor going perpendicularly so as to get from the shingle in the shortest time on to the common, but making a tack at some point which they seemed to guess at along the line of shingle, and so getting home with less trouble than they would otherwise have done. I had the curiosity to measure the angles made by their path, and made a rough calculation to determine the relative roughnesses of the two roads. I do not suppose that these poor women had any more consciousness of what they were doing than the ray of light or the planet has; they were describing a path of minimum trouble. I can hardly do them the injustice to say that they were lazy animals, because they were the most industrious, hard-working poor creatures I have ever fallen in with, but they were performing unconsciously and instinctively the great problem—the problem of doing a given amount of work with a minimum amount of effort; and I venture to say that they performed that problem as the planet describes its path, not by their own intelligence, but by the intelligence of Him who made them both.

I shall take yet another example from organic nature before proceeding to the subject of muscular action. I will take the well-known problem of the cells of bees. Every one knows that the cells of bees are constructed in hexagons, and that the ends of these cells are terminated by the faces of a rhombic dodecahedron. That was the solid so greatly admired by Plato, that he considered it was worthy of representing the earth itself. The tetrahedron represents fire; the octahedron represents air, the cube represents water, but this solid body was reserved in the Platonic system for the dignity of representing the earth itself. The bee constructs this solid; and ancient geometers such as Pappus were so struck with the beauty of these cells that they considered the bee to be a mathematician and geometer; they reckoned the bee amongst themselves as worthy of being called mathematicians, and they accepted the bee-cells as a challenge. Pappus says angrily in one of his works: “I cannot admit that the bee is so expert a geometer as we are, for we can perform a problem greater than the bee, describing polygons with the least perimeter.” He proceeds to show how he could make cells more perfect than those of the bee. There is in this an unconscious supposition of the same kind as in the case of Kepler, that the bee makes the cell by some knowledge or intelligence of its own. Now, the cell of the bee possesses remarkable properties: it possesses the property of making the largest quantity of cell-space with the minimum quantity of wax; or, in other words, it performs the problem of doing a given work with the least amount of trouble to the bee. It costs the bee trouble to make wax, and, therefore, if he acted consciously or unconsciously on the principle of least action, he will make his cells in such a form as to produce a given space for the accommodation of the honey with the minimum or smallest quantity of trouble to himself and of wax as material. In all these cases, in the motion of the planet, in the motion of light, or in the case of living beings like the bee or the unconscious oyster-woman, we have the same principle at work. Nature aims at producing a given quantity of work with the least quantity of material, and this is the precise form which the principle of least action takes in muscular mechanics. Nature has to produce a certain quantity of muscle to do a certain quantity of work. The production of that quantity of muscle costs an effort which is exhausting to the animal; the muscles so produced from day to day, from hour to hour, from minute to minute must be fed by blood-vessels, must be nourished and sustained, and this causes a daily waste of labour. It is, therefore, obviously the interest of nature, whatever be the intelligence that guides her movements, it is the interest of the creatures that she makes, that they should do the work which they have to do with the minimum amount of muscle. The principle of least action is that the arrangement and mutual position of all muscular fibres, bones, and joints must be such as to produce the required effect with the minimum amount of muscular tissue. I hope to show you in my lecture on this day week by two very remarkable examples from the limbs of the tiger and the wings of the albatross a complete and perfect demonstration of the truth of this principle; and in my closing lecture I shall ask your attention to the most interesting and attractive of all the applications to which animal mechanics can be applied, namely, to the heart and other involuntary muscles of great importance.

Before proceeding to apply this principle of least action or least

trouble to nature, it is necessary for us to obtain what I call the coefficient of muscular force. If you take a rope made of hemp, of silk, or of iron, engineers are well-acquainted with the importance of obtaining its coefficient, which represents the number of pounds or tons weight necessary to break it across. Now, I ask you to imagine a rope of muscle. A muscle consists of filaments or fibres very frequently parallel to each other in the form of a rope. Imagine a rope of muscle, one square inch in cross-section, hanging from the ceiling to the ground: let that muscle contract by the order of the will, what weight will it lift from the ground? This is what I define as the coefficient of muscular contraction. It has cost me twelve years of hard work to obtain the coefficients I now place before you, which are represented in pounds per square inch for human muscle. I have not succeeded in obtaining it for any other animal but man. No other animal that I have met with, not even the hairy quadrupeds with long tails, are intelligent enough to submit to the necessary experiments. 94.7 lbs. per square inch is the weight that the arms of a young man accustomed to athletic exercise are capable of lifting. 110.4 is the corresponding coefficient for the muscles of the legs of a similar class; and 107 for the muscles covering the abdomen.

When you bear in mind what I shall now call your attention to, the extreme difficulty of obtaining these results at all, I hope you will agree with me that the differences between them fall within the necessary limits of observation and of error, and that therefore the final result of 104 per square inch may be regarded as an extremely close approximation to the real coefficient of muscular force exerted in healthy strong men. At least, it is the only coefficient that I am able to lay before you. We must undertake, and I did undertake, two extremely laborious classes of observations in order to obtain that coefficient. Without that coefficient I can make no step further in the application of geometry and mechanics to anatomy. This became an absolutely necessary preliminary step. The determining of that coefficient consists of two totally distinct classes of observations. I had to make observations on the force exerted by the muscles during life; and, secondly, I had to make most careful measurements after death of those same muscles. With regard to observations on the force of the muscles exerted during life, it is not nearly so easy to make them, as many of you, who are not anatomists, would at first sight suppose. There is hardly an action of the body—the lifting my hand to my head, walking across a room—that does not involve the co-ordination and co-operation of many scores of muscles; and the moment I get many muscles into play, the difficulty of separating their action becomes immense. Although it is easy to measure the force used in rowing and other actions with the utmost precision, when you come to distribute the action amongst the many muscles that have produced it, you find it impossible to separate and give to each muscle its part, so as to obtain the true coefficient of muscular exertion. You will only, by such processes, obtain empirical results informing you what strength animals or men could exert when performing certain actions, but you cannot work back and get the coefficient which science demands, the precise force per unit of cross-section which these muscles exert. Again, measurements of the muscles made after death presented difficulties, to which I shall presently call attention, much greater than any but an anatomist would suppose. In making my observations on the force exerted by the muscles during life, I often found (as medical men are well aware) that in unexpected forms of disease phenomena will be presented bearing upon muscular forces that solve problems in animal mechanics that no voluntary effort on the part of the sufferer could possibly produce. Contortions of the body will be produced by the agonising spasms of cholera, of lock-jaw, or, as I have seen in cases of poisoning by strychnia, which, while they are dreadful to behold, are yet, to the intelligent observer, of most extreme importance. While you are helping a sufferer on his bed of pain there is nothing to prevent your catching the solution of your problem for the coefficient of animal mechanics. You need not be less kind or hearty in your zeal to help the sufferer because you are at the same time taking scientific note of a curious combination of muscles of which he is entirely unconscious, and that no voluntary effort on his part or on the part of any other man would enable you to obtain. Partly for this cause, and partly I hope from higher motives, I became personally and intimately acquainted with all the phenomena of cholera. In cholera, hydrophobia, lock-jaw, and for the study of the muscle of the heart in fever, it is absolutely necessary to come into contact with these diseases, to study them at the bedside, and so to become acquainted, as I did through twelve years of hard work with a most interesting class, concerning whom it will be wrong for me to proceed in my lecture without bearing my humble testimony. I am not acquainted much with the poor of England, though I doubt not their qualities are as estimable and as excellent as those of my own country; but I may be permitted to bear my humble testimony to the

qualities which I have observed myself amongst our Irish poor when in sickness and in trouble. Their devotion to their friends and neighbours in time of trouble is most extraordinary. Those who have quarreled in prosperity forgive each other in times of sickness. Their impulsive nature and their heartfelt gratitude, even unto death, for a hearty word of sympathy and kindness from those who visit them, and their brave cheerfulness in facing death, cannot be described by my words. One fact stands out prominent to the observation of any person who studies our Irish poor in time of sickness and trouble, the extreme devotion of the poor to the poor. The rich often will give money, sometimes kind words; but the poor give all they have—their food, their money, their hearts to each other in time of sickness. I believe, and I am sure my experience will be confirmed by that of every physician who hears me, that those sufferers who have themselves drunk the bitter cup of life to its very dregs are the most ready to offer to the lips of a dying brother or sister the cup of cold water in the name of their Divine Master.

My efforts to obtain a coefficient of muscular force were not confined to observations upon the poor in hospitals; I also had to come in contact with a more uninteresting, but perhaps not less curious, class—the criminals in our jails. It is necessary for the student of animal mechanics to become an expert in the use of the treadmill, to understand the mysteries of shot-drill, and to know how to use the crank. My object was to learn how to work upon the treadmill as an intelligent lazy burglar, trying to do my work with the least trouble to myself; and I can assure you, after much labour, I perfectly succeeded, and can go through shot-drill, turn the crank, and work the treadmill, as the laziest burglar in London might do, working my muscles involuntarily by the principle of least action, and doing my hated task in a lazy manner, with the least trouble to myself. How did I obtain this knowledge? How did I learn these things? I have been taught the use of jemmies, and burglars' tools as well. I know the slate trick, which is a secret known to Irish thieves only; I also know where to place myself to the best advantage on the treadmill; and I learnt all this by a plan extremely simple, and which I would heartily commend to our criminal reformers as a most powerful weapon in their hands—an ounce of tobacco. An ounce of tobacco will draw the dearest secret from the heart of a burglar; it will make the most discontented, sulky wretch in the gaol obedient and quiet for a week, the promise of an ounce of tobacco at the close. I believe it is done in some prisons, and it ought to be done in all. Instead of the extreme severity which characterises our treatment of these poor men, the occasional offer of rewards, which the men would prize, would do more to reform them than all our severity and all our stripes. I must say for them that I have found them, as a class, both English and Irish burglars and thieves, much better than I had expected.

Having made my observations upon the work done by groups of muscles in various conditions of action, I then had, as you will see, to proceed to the examination of the measurements of these muscles after death. Now, this was no easy task. The observations on the forces employed were made upon men in health—generally young men in the full vigour of life—for I was anxious to ascertain what the coefficient of muscular exertion in healthy men and in full condition was. But the examinations of muscles after death were necessarily made upon persons who had died in their beds after they were wasted by long illness, and in a condition of body presumably quite different from that of those same persons when in health. I saw very quickly that if I relied upon mere observations and measurements of muscles made after death, comparing them with living forces, I should get a false result, and a coefficient much too great, because the cross-section of the muscle in life is certainly much larger than it is after death from long illness. Therefore I had two courses before me: I had my choice of waiting for persons who had died suddenly a violent death, and obtaining permission to examine them, or of waiting for an opportunity of examining persons who had died violently by the hands of the law. Now, in a country like Ireland, there were unusual and extraordinary impediments to both these processes. I placed myself in communication with the hospitals of Dublin, and got early notice of every bad accident that came in. The patient in the cases, such as I was sent for generally, died, but the cause of death was so apparent that the coroner could not venture to interpose and order a legal investigation of the body, which would have given an opportunity for examination; and the sympathy of friends in the case of accident—the determination to wake the deceased person—is so strong in Ireland that it is impossible to obtain permission from them to make an examination. A wake is a matter of great necessity in all cases in Ireland where it is possible, but in a case where the sensations and feelings have been aroused and sympathies excited by a fall from a scaffold, or an accident in a mill, or any violent death, an anatomist would be most unwise, if he attempted to make an examination in such a case. Again, when I turned my attention to executions, I had extreme difficulty, part of which is creditable to my

country—social or private crime is so extremely rare in Ireland that it was almost impossible to find a case for examination. In such a case there would have been no sympathy with the convicted criminal, and the surgeon would have been permitted to conduct his investigation at his leisure; but in the majority of cases in Ireland the crime for which executions are performed is agrarian crime, and is semipublic in its character, exciting sympathy among large masses of the misguided population who agree with the murderer; and this calls for great care and caution on the part of any scientific man who would make a man who has shot his landlord a subject for investigation. At last, ladies and gentlemen, a brilliant idea came across my mind, which, however, I was reluctantly compelled to set aside. I thought to myself, what in the world is to hinder me from taking a farm in Westmeath, deliberately and wilfully refusing to pay my rents, and in due time shooting my landlord, and, instead of using him as a New Zealand tenant would, dissecting him at my leisure. Then I have my muscular coefficient problem and all my problems resolved. I need not say that further consideration led me to the conclusion that there were inconveniences attached to this course, and public opinion in Ireland, I can assure you, would not sanction the shooting of a landlord for the purpose of determining the coefficient of muscular force.

In conclusion, I would wish to say a word as to the principle I have adopted. I have shown you that the planet moves in its orbit as a lazy intelligent creature would who was anxious to perform an allotted task with the least trouble to itself; that a ray of light describes its path by the same sort of apparently instinctive action; that the poor old oyster-woman, ignorant of what she is doing, instinctively walks across the varying road she has to travel in the path of the least action; that the bee constructs its wonderful cell so as to produce a given amount of storage for its honey with the least possible amount of trouble to itself; and in a case that I was not able to bring before you for want of time, of the tendons of the legs and arms of animals, I could show that these are constructed with a wonderful economy of force of the same kind as that with which the bee constructs its cell; and I hope to show, in a future lecture, that the limbs or muscular organs of every animal are also constructed on this strange principle; as if each one of these things was itself instinct with life and reason, as Kepler really and from his heart believed. Is it by the intelligence of the planet that it moves in its orbit? Does the light travel in its path by its intelligence? Does the poor oyster-woman calculate the road by which she goes as she instinctively walks across the strand? Who has weighed out and regulated the weight of the tendons of our arms and hands? And by what force or by what intelligence do the limbs of animals describe their proper path? Who places the socket of each joint in the exact position (which can be calculated with unerring certainty by mathematics) which enables the muscle to perform its allotted task with the least amount of trouble to itself? It is not by their intelligence, by their instinct: it is not the instinct of the planet, or of the oyster-woman, or of the bee, that guides them in their path. There is instinct; there is knowledge; there is foresight; there is calculation: it is the knowledge, the foresight, the wisdom, and the calculation, of the Great Architect and Geometrician of the Universe.

ON THE TREATMENT OF POISONING BY CARBOLIC ACID.

By CHARLES ROBERTS, Esq.

ACCIDENTAL and suicidal poisoning by carbolic acid is now of such frequent occurrence, that it is a matter of importance that we should come to some definite conclusion as to the best antidote and the most suitable treatment to be adopted in such cases. Considerable difference of opinion exists as to the manner in which death is produced by this substance. Some believe that it is due to nervous shock, produced by the local lesions of the mouth, gullet, and stomach; and that the carbolic acid is not absorbed into the system. Others, again, believe that it is absorbed, and produces death by acting on the brain as a narcotic poison; while a third class hold that its action is due to chemical changes produced in the blood, and consequent impediment in its circulation, congestions of the brain, lungs, etc. It is much to be regretted that more complete reports have not been made of the numerous cases which have occurred, especially in public practice.

In the cases reported by Dr. Ogston and Dr. Irvine, of Aberdeen, in the *BRITISH MEDICAL JOURNAL* for February 4th, 1871, and by Dr. Barlow, of Manchester, in the *Lancet* for March 20th, 1869, the carbolic acid was recognised by its odour in the brain, liver, and other organs, and the blood was coagulated and otherwise altered in character. It will be remembered, too, that one person died, and the lives

of two others were endangered, by the application of the acid to the skin for the cure of itch. In one of the provincial hospitals, a patient died from the administration of an enema containing carbolic acid; and numerous cases have been recorded in which the application of dilute carbolic acid lotions to wounds have produced urgent and often dangerous symptoms of poisoning. There can be little doubt, therefore, that the poison is absorbed into the system. When the acid is concentrated, and in large quantity, and the stomach empty, it would, like any other corrosive substance, by destroying a large surface of mucous membrane, produce death by shock; but even where this has occurred, as in Dr. Barlow's case, some of the poison was absorbed.

In all cases, whether death has resulted or not, the symptoms have been those of collapse; the milder cases often accompanied by severe vomiting, the severer ones by convulsions. These symptoms, following rapidly on the administration of the poison, point clearly to the nervous system as the part first affected, the circulatory derangements being secondary, or, in a great measure, even *post mortem*. An interesting case reported by Dr. Lightfoot in the *BRITISH MEDICAL JOURNAL* for April 2nd, 1870, confirms this view. A lotion containing only two per cent. of carbolic acid was employed as a dressing to a case of excision of the elbow-joint, on three successive occasions, and on each occasion severe vomiting and dangerous symptoms of collapse followed, but again subsided on substituting a poultice for the lotion. It is quite incredible that so small a quantity of acid, absorbed by so small a surface, could have produced such urgent symptoms by any chemical action on the blood. Dr. Lightfoot refers to similar cases in the *Guy's Hospital and University College Hospital Reports*; and it is quite probable that symptoms, which are often attributed in surgical practice to anæsthetics, are due to the carbolic acid employed as dressings.

The indications for treatment are—to remove the poison from the stomach as speedily as possible, to neutralise its action, and to treat the general symptoms of collapse in the ordinary way. A mixture of olive oil and castor oil has been recommended, and employed in some cases, with the object, I suppose, of diluting and carrying off the poison by the bowels, on the theory that it acts only as a corrosive, and is not absorbed. As we know that it is absorbed, it would be doubtful practice to continue this treatment, and to make the acid run the gauntlet of the fat-absorbing surfaces of the small intestines. As carbolic acid is very slightly soluble in water, probably the speediest and most effectual way of removing it mechanically from the stomach, would be to administer large quantities of warm water, or mustard and water. As it is very soluble in glycerine, that substance, with water and sulphate of zinc, might be employed, after the bulk of the poison had been removed by the former plan. From the serious action of the acid on the mucous membrane, the stomach-pump should be employed with great care, and probably would often be inadmissible. I know of no substance capable of neutralising the acid chemically; but its well known affinity for albuminous compounds would point to eggs, and finely mixed or powdered *raw* meat, as likely to be of service. If eggs were used, it would be necessary, for obvious reasons, that they should be very much diluted, by being whipped up with milk or cold water. Milk is not coagulated by carbolic acid, and therefore would not act as a neutraliser, but it would be a more suitable application than oil to the injured mucous membrane, and less likely to produce further discomfort to the patient. The general symptoms of collapse must be treated in the usual manner, by internal stimulants, and friction and warmth to the skin. The rectum would be the most suitable part to which stimulants should be applied. If raw meat were given, it might be well seasoned. As brandy dissolves carbolic acid, and is itself speedily absorbed, its administration by the stomach would be contraindicated.

POISONING BY NITRATE OF SILVER.

DURING the period of my house-surgeoncy at St. Mary's Hospital, Paddington, a similar accident to that recorded by Mr. Scattergood of Leeds occurred to me. A piece of nitrate of silver, with which I was painting the fauces of a child four years old, broke, and the larger part of the caustic stick was swallowed. I produced immediate vomiting by forcing my fingers on to the gullet, and sent to the kitchen for a large supply of milk, of which I pumped several pints into his stomach and out again. The child had dysenteric symptoms during the next three days, and occasional vomiting. It was kept on an exclusively milk diet, and recovered. Milk is an excellent antidote to nitrate of silver, in virtue of its large proportion of suspended albumen. I use it in lieu of salt and water for neutralising the excessive effects of even the mitigated caustic, when employing it locally on the mucous membrane of the eyelids.

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THE AIMS OF MEDICINE:

BEING PART OF

An Address delivered to the Graduates in Medicine of the University of Glasgow, May 1871.

By JOHN YOUNG, M.D., F.R.S.Ed.,
Professor of Natural History in the University.

It seems a truism to tell you that the practice of medicine is not the application of rules, but is solely and entirely the exercise of common sense. Chomel, whose treatise on pathology is well worthy of careful study, from the excellence of his method, says: "Medical art, or, as it is generally called, practical medicine, is only the application of common sense to the treatment of disease, and, consequently, to the preservation and the improvement of health. Common sense is thus, after honesty (*vir probus*), the first quality of the physician—nay, even of man, whatever his social position: knowledge of diseases, no less indispensable, holds in reality only the second place. This knowledge is within the reach of every man of ordinary intelligence if he give the time and take the trouble: common sense is not the portion of all."

With the subordination herein stated, I most cordially agree; but at the same time it must be borne in mind that, while it is in every man's power to acquire the requisite amount of knowledge wherewith to start in practice, and, though your presence here as graduands indicates your possession of that knowledge, as well as of a certain amount of common sense in its application, the acquisition of this minimum qualification is a very small merit on your part. Mr. Ruskin says that every man can be taught to draw, though very few can become artists—few, that is to say, possess even that small amount of imagination which is needed for successful copying from nature. But in medicine it is different. There may be no harm in giving a man the power to spoil paper in the practice of what he may never come to do with decent skill; but the experiments of a medical man are of another sort: the disaster of a bad experiment is an injury to the community. The world cries out when a great statesman is bled to death for an inflammation of the lungs, or a great artist is killed by purgation in enteric typhus. The mistake is as great; but perhaps the results are more grievous when the labourer, the head of a family, is killed by similarly erroneous diagnosis or theoretical treatment. To diminish as far as possible the risk of incompetence of this sort is the object of the clinical examinations which you have just undergone. Some of you may be conscious of the imperfection of the test: let me remind you that the real test is one inapplicable by any medical board. Several weeks of observation would scarcely fulfil the conditions. But, though this defect is admitted, it is needless to remind you that the sole responsibility of your future merits or demerits does not rest with the board which certifies you as qualified, any more than the conferring of the degree, talisman-fashion, completes your intellectual outfit.

That this is the view of the medical faculty in this University, is seen from the fact that the thesis is now required of the candidates for M.D.; its preparation being, in theory, an evidence that the period between receiving the M.B. and the final degree has been spent in continued observation and study. It is only courteous to believe that the interval is so spent; but, nevertheless, some of my colleagues agree with me in regretting that the evidence is not more clear. Personally, I regret that what the thesis originally was has now passed away; that an essay, more or less carefully written, has been substituted for the disputations on themes selected by the candidate. It was not necessary that the propositions set forth should be original; it was not even necessary that they should be true: the discussion brought out the real knowledge of the candidate, and gave opportunity to the cultivated man, or to him in whom strong native intellect replaced high culture, to show what was in him. But I fear the custom has now merited, by lapse of time, the censure of "antiquated"; and, when once that condemnation has been pronounced, it is needless to attempt its reversal.

Accepting, then, the present necessity for the preparation of a written essay, I would urge upon those who hear me, and whose turn is yet to come for obtaining the higher degree, the importance of trying to vindicate for themselves a better position than that of mere compilers—a more satisfactory claim to honour than that of merely editing the statements of others.

Hitherto I have spoken only of professional study; but, gentlemen, I should ill discharge my duty if I failed to remind you that your duties neither begin nor end with the performance, however skilful, of purely medical functions. I might go further, and say that the cure of disease or the repair of injury is not the highest duty you have to perform.

The prevention of disease, or, better still, the improvement of those evil social conditions to which so much of physical deterioration is due, these form the highest ambition of the physician. To fulfil this noble function, the doctor must be more than the strict technical definition of his office requires. He must qualify himself to act worthily the part of citizen. Do not think that by this I allude to any political action on your part. On the contrary, there is no one for whom I have so thorough a dislike as a political doctor. Wire-pullers, if I may use a convenient American phrase, are well aware that a medical constituency is the least reliable even among academic constituencies; and the evil reputation which they have seems to me matter of satisfaction. Our profession is one which, of all others, tends to relieve us of the influence of authority: the very nature of its work throws us at every moment on our resources, and teaches us that kind of self-reliance which forbids, or, at least, if a man have any pith in him, renders difficult implicit obedience to any fixed code of opinions. And the more thoroughly a man fulfils the requirements of his profession, the less likely is he to degenerate into what I mean by a political doctor—that is, one who is content to surrender his individual opinions, and, accepting the platform of a party, to devote himself to their interests. I have heard a professional politician—though, I admit, not himself of great weight—speak slightly of a distinguished surgeon, as a man of no political power. My indignant reply was, that he had not pretended to such a character; that if he had he would have done wrong, since he would thereby of necessity have been led to neglect his proper professional work, and that was his first object in life.

Within the walls of the University you have had a certain amount of political excitement: some of you have taken active part on one or other side. I would pray you to leave that behind you, as you leave other pastures, and to remember that hereafter life has more important duties than the support of Conservatives or Liberals as such. Far be it from me to ask you to cast off your political convictions, if you have any. What I mean is, that you should cease from active intervention on one side or other, for otherwise you endanger your usefulness to the community. Let me remind you of the description which I quoted at the beginning of the session, from Nathaniel Hawthorne, of the physician Roger Chillingworth. The source of his power lay in his not presenting any prominent individuality. You are not so ignorant of human nature as to be unaware of the fact that the bitterest and most lasting dislikes are those founded on political differences. It is enough, then, that you should act as your principles direct when the recording of your vote is a necessity. To do more, to act the part of an advocate, is to weaken your influence over a part of your constituents, and to weaken that influence is voluntarily to surrender an important part of your functions.

You are the teachers of the people; you are their leaders in all matters of liberal policy in whichever party as currently designated the exercise of your political franchise enrols you. The Romish priests, when Rome was in the zenith of its glory, had not greater power than is in your hands, as the familiar visitors of the people, if only that power be discreetly exercised—if the wielder of that power fulfil the obligations which he has to day undertaken. Gentlemen, there is not one social question on which you cannot make your impress, if only you are qualified to counsel wisely. You may, under the influence of temporary excitement, or other less worthy motive, guide the people to whom you have free access into a wrong course of action; but upon you will most undoubtedly fall the punishment if it be wrong. Success may for a time crown your efforts; but disenchantment will come, and the power you once wielded for evil will be lost, and with it even the power to do good. Therefore, gentlemen, as a matter of self-interest, qualify yourselves to counsel wisely.

I would enforce this view of the medical man's duty by reference to one or two important social questions on which, it seems to me, the medical profession have it in their power to exercise much influence, and in regard to which, if they fail to exert their legitimate power, they incur a grave responsibility.

There is, as you are aware, much difference of opinion as to whether insanity is or is not on the increase. My own opinion, *valeat quantum*, is that increase is inevitable; that the very material advancement of our civilisation has as an invariable—I will not say a necessary—consequence, that mental tension which, save under exceptionally favourable physical conditions, becomes aggravated by hereditary transmission into loss of control. But, even supposing that they are correct who deny the increase of this terrible disease, the fact still remains that it is not diminishing—that there is at any rate a constant quantity of insanity. To diminish the amount of disease as disease is your highest ambition: but insanity is not a merely medical question; it must be regarded also as a social question. A recent writer on the Scottish Poor-law has very clearly set forth the importance of insanity as a cause of pauperism; and

this, the heaviest drain on the community, comes therefore, to some extent at least, under your control. It comes in two ways; first, because in your character of public teachers you have it in your power to alter, were it only a little, the evil customs which, by giving rise to physical degeneration, prepare the way for mental disturbance; second, because as physicians you may in many cases avert the progress of ailments which would inevitably end in insanity, however obscure the chain of causation may be.

You are all aware, doubtless, of the history of recent opinion concerning insanity. You have heard of the barbarisms, not tolerated but actually enjoined by a profession which, in common with the philosophers, held insanity to be a perversion of the will, to be a punishable offence, for which whipping, seclusion, and other forms of torture were the suitable rewards. It is impossible in short compass to do justice to the gradual evolution of more rational opinions. Suffice it that more humane treatment was at first adopted, notwithstanding that erroneous psychology held undisputed sway; and that to-day still greater improvements have been introduced into the management of the insane as a consequence of the fuller recognition of mental disturbance as a symptom of physical disorder. Formerly, insanity was a dispensation of Providence, a sign of Divine vengeance, which was a matter of shame, the evidence of which was to be got out of sight as speedily as possible. To dream of averting it would have been held as a sign of an impious spirit, seeking to fly in the face of the decrees of Heaven. Now, the warding off of insanity is not only a question freely discussed, but the failure of the medical profession to avert it more frequently is, and in the future will be still more, regarded as matter of blame.

But before that happy time comes, when our success in this direction shall be conspicuous and admitted, much will require to be done. I do not now speak of changes in the method of medical education, important though these may be; I am thinking of that improvement in diagnosis which it is in the power of every one of you to help forward. You will find in a small volume recently published by Dr. Maudsley—*Body and Mind*—an admirable summary of the present state of the question as to the relations of mental and bodily disease. I care not whether that book be denounced as materialistic or not, even admitting (though it is not common) that a rational meaning be attached to the word materialistic. It is more to the purpose that the method of inquiry therein indicated gives promise of good results. Whether you regard mind as a function of body—as his opponents delight to put his views—or consider mind to be a separate entity, it is clear that physical disorder can be in many cases assigned as the cause of mental disorder; and all that you have to consider as physicians is, not whether his metaphysics be correct, but whether there be any assignable limit to this mutual influence of body and mind. In the time which must pass before you have got a footing on the ladder of professional success, you could not employ yourselves more profitably than in the perusal of that small volume. If, enamoured of the subject, you pursue your investigations and read the works of Griesinger and other continental disciples of the same school, I warn you that you may find much to shock your prejudices (using the word in its original sense), but a vast deal more that will throw light on many hitherto obscure questions in pathology.

You know that hypochondriasis and melancholia are symptomatic of hepatic and gastric disorder, usually organic, sometimes, however, functional in character; that chronic rectal and pharyngeal inflammations are accompanied by peculiar and, for the most part, similar depression. Puerperal insanities have relation to special organs whose innervation is interfered with. If any of you have unhappy acquaintance with headache, you know that the locality of the pain represents a difference of cause. I might multiply examples of direct sympathies, *i.e.*, of direct connexion between the centre and the periphery, and of reflex sympathies where organs, not in immediate contact, are nevertheless simultaneously affected through the centres, as of ovaries and stomach. The vague phrenology, or, as one might more justly call it, chorography, herein indicated, is as yet unwrought ground. In face of the localisation indicated in aphasia, we have no right to say that other similar localisations may not be hereafter recognised. The terms choleric and splenic themselves refer to hypotheses of direct dependence of mental on visceral states; and though the hypothesis may be wrongly used, it is much more scientific in character than the flippancy with which modern wittlings and pseudo-philosophers comment on doctrines which were based on a rational belief in the mutual relations of all the organs in the body. A few years ago, Professor Laycock revived in Scotland physiognomical diagnosis, or, to speak strictly, formulated and extended that method of research; and I would, as a naturalist, recommend to you the perusal of the volume in which his physiognomical notions are summarised. I had ample opportunities of observing the practical use of the physiognomical method; and though in many

respects, so far, at least, as diagnosis with a view to treatment was concerned, the exceptional far outnumbered the normal cases, I am bound to say that it was in spirit a thoroughly scientific application of zoological principles to man. And the lack of precision which I have just mentioned indicates, not error in method, but that the classification empirically adopted was in some ways not sufficiently general. I am not called on just now to criticise the indications set forth as characteristic of diathesis or constitutional tendencies on the one hand, of cachexia or pathological states on the other. All that I need say is, that the yellow colour of icterus is no more certain a sign of hepatic disorder, than complexion, hair, and skin, are of a depraved physical state, due to the degeneration of parents under evil surroundings, and ready to burst into disease. Every successful practitioner is, to some extent, guided by the evidence furnished by outward appearances; and a surgeon of long experience relies, probably more than he himself knows, on small points which confirm or contradict the patient's statement, or perhaps suggest a different hypothesis regarding the character or cause of his affection. Distinguish, therefore, carefully; and this caution applies to more things than physiognomical diagnosis, between censure of a law and to condemnation of errors or extravagances in its application. Do not be misled by fluent talk about the impossibility of refinements so extreme as physiognomical diagnosis would require. The subject has never had a fair chance in this country. It would be as wise to expect the offspring of a cat to resemble a dog, as to look for signs of robustness in the child of phthisical parents. Malnutrition affects all the tissues of the body; but it depends on circumstances in what organ obvious disease shall first appear. In a very valuable essay by Dr. Clouston, the Superintendent of the County Asylum at Carlisle, the relations of tuberculosis to insanity are carefully wrought out. While it is shown that monomania of suspicion is the most frequently associated with phthisis, he further makes out a case for the separation of what he calls phthisical mania, the prognosis in which is, that the sufferer will die within three or four years. He admits that the classification of forms of insanity does not present well marked lines of separation between distinct groups; and the admission is important. But it does not invalidate our classifications any more than the coincidence of hepatic, cardiac, and renal disease tends to throw doubt on the existence of either kind of physical disorder. The main feature of his essay is, that it points out the possibility of a particular form of insanity existing as a consequence of a particular kind of malnutrition of the brain. And as every viscus exerts its special influence on the blood, the malnutrition resulting from imperfect action of a viscus must vary according to the material which is thus excessive or defective in the nutritive fluid. We know that opium acts differently on the brain from belladonna; and difference of chemical composition represents that dissimilar action. We can distinguish the poison from its symptoms, but we cannot yet tell what is the particular symptom to be ascribed to disease of a depuratory organ; we do not as yet know to which portion of the central nervous system any organ is specially related. Here, then, gentlemen, is a field of investigation in which fame may be won; and the results of successful research would tell importantly on the prevention and diagnosis of disease. Ascribing, as I do, very extensive influence to physical disease, it follows that the area of moral responsibility is proportionally diminished. I do not mean that this diminution should have, as a necessary result, in one case out of a hundred, immunity from punishment. On the contrary, punishment acts as a moral tonic, suppressing for a time the psychical symptoms of disease. But there are too many cases in which vice and crime are in the hands of the medical practitioner. He has to act the part alternately of moral instructor and of physician. A mistaken notion that the former office is beyond his sphere, often ends in his thinking his patient unsuited for any medical treatment at all; and a catastrophe may ensue which need never have occurred, which ought to have been averted. The bronchitic patient who was lured well nigh to suicide by a persistent phantom, which disappeared, and with it the suicidal tendency, on the administration of an opiate to relieve the breathing, is a type of a large class of cases. We have, on the one hand, minor symptoms neglected; on the other, grave symptoms exaggerated; one patient ends in an asylum, as the result of long mismanagement; the other finds his way thither too speedily, the pronounced insanity forcing the ignorant or timid practitioner to turn over the responsibility to an asylum, cruelly and wrongfully in any case, but still more so when popular prejudice brands the lunatic with disgrace. Nor is this evil state of matters solely chargeable against the ordinary members of the profession. The *Nomenclature of Diseases*, a work sanctioned by the high authority of the London College of Physicians, and forwarded to every member of the profession by the Registrar-General, contains a section entitled Disorders of the Intellect, which includes six headings: Mania (acute and chronic), Melancholia, Dementia, General Paralysis, Idiocy, and Imbecility—

a hazy classification, speciously exact, and fitly paralleled, as has been suggested, by the classification of respiratory diseases under slow, hurried, and irregular breathing.

Let me digress for one moment, to remark that the difficulty of organising in this country satisfactory clinical instruction in insanity, has much to do with this state of things. But, though the medical schools of Britain are all alike open to this censure, you are not thereby free from responsibility. The time is not far distant, I hope, when the new *clinique* in our immediate neighbourhood shall include wards for nervous diseases. But, meanwhile, you can do much by careful study and observation to remedy the defect. By nervous diseases, is commonly understood a chaos in which neuralgia, hysteria, fear, and insanity are included and covered by one censure; in fact, to condemn a pain as nervous, or to call mental anxiety just nervousness, is deemed, for the most part, to fulfil the double condition of scientific precision and exhaustive treatment. Woe to the man or woman who has once been branded as nervous; let him or her retire as soon as may be to an asylum, or consult a quack doctor, for careful treatment; even human sympathy is forfeited, as a general rule, by the nervous. Gentlemen, this is a sad admission to make; it is only a slightly exaggerated statement. Never forget that these trifling ailments cannot be summarily dismissed; it requires attention to ascertain their genuineness or fanciful character; and even if they be mere fancies, laughter, rudeness, and indifference, are not the best, nor are they generous ways of dispelling them. But they are frequently the signs of unsuspected disease, which will escape detection till the time of recovery is past. Nervousness in (of all men) a London attorney was removed by the timely injunction to take a sufficient midday meal: imperfect nutrition having originated symptoms undistinguishable at first sight from those of general paralysis. Melancholy, irregular in its paroxysms, has been traced to residence in a house or district badly drained; for, Dr. Madden notwithstanding, malaria is not simply catarrh with or without influenza. In isolated cases, errors in diet or in domestic arrangements may require some ingenuity to hunt out; but it is worth while cultivating that ingenuity when it is known how frequently external conditions, that is to say, removable causes, foster temporary diseases, which may, by neglect, become permanent organic lesions.

Such cases I hold to be socially more important than fevers or surgical accidents; for the hereditary transmission of degraded *physique*, and of weakened nervous system, is thereby prepared for; and the issue, as I have shown, is serious. Let it not be said that the weakly tend to disappear by natural selection: they do in one way truly, but extinction by infertility is somewhat slow, and, before [that has been reached, the minor degrees of impairment have been multiplied, so that each diseased man becomes, as it were, a centre of mischief, the area of which it is impossible to define.

But it is in large towns that you will find the most hideous evidence of the moral taint of disease; it is in them that the most earnest practitioner will find the widest field for his philanthropic exertions. But, alas! it is there, where the need is greatest, that the hope of success is least. Greed, *laissez aller*, and the worst forms of corporate and private selfishness and indifference, carefully foster disease, to the pecuniary damage of the community and the persistent moral degradation of a large section of the people. I was struck with the fact that in 1777 the mortality in Glasgow, below five years of age, was the same per cent. as now. Dr. Gairdner, to whom I mentioned this fact, startled me by saying the wonder is that it is not greater now. And his admirable paper on Defective House Accommodation as a cause of Mortality fully explains his meaning. Persistent overcrowding, defective ventilation and drainage, tend to produce and maintain a bodily state which is eminently unfavourable to the chances of life of the young. But they, at the same time, permit and foster—nay, rather directly originate—a perverted moral state, under which care for the offspring diminishes. The social question here overshadows the purely medical one; and, as statistics have been adduced to show that the mortality in Scottish towns is increasing, while in English towns it is diminishing, there is no chance that your efforts as public instructors and social leaders may soon be dispensed with. Do not imagine that this is true for towns only, or even for the lower part of towns; the same social errors are committed in every part of the country—in the best as well as the lowest districts of our large towns; the same evils have to be combated; the same line of conduct is required of you in all cases.

I do not expect that you will assent to all I have said; but to the main object of this address no exception can be taken.

I have endeavoured to make clear, by a few examples, that the medical man who trusts to his purely professional skill, and believes that having exerted that he has discharged his duty, is only, after all, a well trained tradesman, for he has not sufficient enthusiasm to be called a

monomaniac. Your duty to society requires that you should use all your knowledge, not merely to heal the sick, but to better the healthy. You have learned the mutual actions of body on mind and mind on body; you are, therefore, prepared to remove or to avert disaster from either; and you are required to use this knowledge, not merely in the face of actual or impending danger, but so that the possibility of mischief may be diminished from year to year. You will not always earn substantial reward, far less fame, by your efforts; but ours is a profession which has not always limited its work by the prospect of returns. One reward you are certain of, that of a good conscience; and the consolation of having done your best for the good of your fellow men is not to be lightly thought of.

ISCHL AS A SUMMER RESIDENCE FOR CONSUMPTIVES.

By J. HENRY BENNET, M.D.

IN one of the interesting letters of the Vienna correspondent in a recent number of the JOURNAL, I have just read a warm recommendation of Ischl as a summer residence for British consumptives. I must, however, register a disclaimer of this opinion, founded on personal knowledge of Ischl, and of the Continent generally, in summer time. I have passed several weeks at Ischl in August and early September, and have no hesitation in saying that, lovely as it is, the heat is much too great for consumptives. This favourite watering-place is, it is true, fifteen hundred feet above the sea; but that elevation in continental Europe does not sensibly mitigate summer heat. Indeed, at the latitude of Ischl it requires, at the very least, double the elevation—one of from three to four thousand feet—to escape the extreme tropical heat of July and August.

I believe that it is now generally acknowledged by British pathologists that extreme heat is most pernicious in tubercular disease. Intense heat is everywhere inimical to health and to life; it tries even sound constitutions, and is still more injurious to those who are suffering from cachectic diseases, and especially from tubercular cachexia. It destroys the appetite, impairs sleep, gives rise to exhausting perspirations, and interferes with the physiological action of the lungs, liver, and intestines, thus predisposing to bilious and intestinal derangement. Are such conditions—conditions altogether antagonistic to the recuperation of vital power—to be actually courted and sought for?

Yet this is what consumptives do when they leave our temperate island for the heated mainland in midsummer. They rush into the furnace of continental midsummer heat, from which there is no escaping, except by ascending mountains to an altitude of 4000 feet or thereabouts. This can, it is true, be done in some regions, such as Switzerland, where there are various *pensions* and hotels at the higher mountain elevations, as in the Engadine and on the Rhigi. Indeed, to be safe in continental Europe in July and August, consumptives must seek these havens, these harbours of refuge against hot weather. No mineral waters, however salubrious and vitalising, can compensate for the absence of a cool bracing atmosphere; nor can they ever counteract the evil effects constantly produced by an amount of heat which makes life itself an ordeal, a penance, during the day, until the shades of night fall, to be endured only by living in darkened rooms in a state of semi-nudity, and by drinking buckets of lemonade and iced water.

I am fairly warranted, on my own personal experience, in stating that there is no summer climate in Europe so good for consumptives as our British insular climate, where we are constantly screened from the rays of the midsummer sun by an atmosphere full of watery vapour. I attribute in a great measure my own recovery to my having withstood the temptations of summer travel, and to my having returned home year after year. I may add that my experience with others has been identical. Every spring, for the last twelve years, I have had, at Mentone, where I spend the winter, to direct the movements of a considerable number of consumptives, whom I have helped on throughout their winter sojourn. Many will travel, will go to Switzerland; many are obliged to remain in the vicinity of the locality where they are to spend the ensuing winter, owing to *res angusta domi*; but I invariably use my influence to induce them to go to the higher mountain regions. Every autumn, when we all meet again, I find that those who have returned to England, and have lived there in the country, have done the best. Nearly all my best cases during ten years have been persons who have returned regularly to England, who have even there sought cool, healthy country localities, and who have gone north in our very hot weather.

In conclusion, I would remark that a knowledge of these facts does

not seem to exist among the Germans. After wintering in the south, they mostly go stolidly home, as a matter of course, and often remain sweltering during the dog-days at some watering-place on the Rhine or elsewhere. There they imbibe quantities of mineral waters in the midst of tropical heat, vainly hoping thereby to cure a vital cachexia, only to be arrested or cured by carrying out *all* the laws of physiology and hygiene, and that to their extreme development and limit.

RECOLLECTIONS OF THE MEDICAL SCHOOL OF BERLIN.

By H. ROSBOROUGH SWANZY, M.B. Dub.,

Surgeon to the National Eye and Ear Hospital; Ophthalmic Surgeon to the Adelaide Hospital; late Assistant to the late Professor von Graefe, Berlin; etc.

II.

THERE is one course given at Berlin which in itself would more than amply repay a visit, and in praise of which too much could not be said; namely, von Langenbeck's Operative Course. He gives two such in the year: one during the Easter recess, from 8 A.M. to 10 A.M.; the other in the Summer Session, from 6 A.M. to 8 A.M., several times a week. I never knew von Langenbeck to be five minutes late in commencing. The course is held in the *post mortem* room of the Pathological Institution, and the Professor walks down thither in the morning from his house smoking a cigar. There are usually three or four subjects to be operated upon by fifteen or twenty students; this being but half the class, while the other half come on the alternate days. Langenbeck, however, frequently confers upon foreigners the privilege of attending with each section. A short lecture is first given on some particular operation, in which the professor sets forth the views of others as well as his own, mentioning the cases to which he thinks the operation most applicable, the degree of success which has attended his performance of it, etc.; and then, if it be one of difficulty—suppose an excision of the knee—he performs it partially or altogether before the class. If, then, there should be three subjects, five students are set to work at the remaining knee-joints, while Langenbeck himself directs and assists them: and, indeed, he appears to be ubiquitous, at everyone's elbow, ready and willing to answer every question satisfactorily. Then another operation is described, and five other students get their turn; and in this way the two hours pass like a dream. At last the professor lights another cigar, and, bowing to the classes, goes off to attend to his house-business (for in Berlin the medical men have two hours at home for their private patients; one at eight or nine in the morning—and this is the most frequented one—the other at three or four in the afternoon). During this course each student will have done nearly every operation in surgery (including that for cleft palate) two or three times. I believe this course to be quite unique, for where else will be found a surgeon who is covered with honours of every kind, who has been through the hard work of many campaigns, and who, with a world-wide reputation, will still deign to teach students the use of the knife on the dead subject? And yet it happens that the only such surgeon who thinks this not beneath his dignity is one of the best, if not the very best, of living operators.

In papers with a title such as these bear, the name of one, now no more, but with whom the writer had the high honour of being more closely connected than with any of the other Berlin professors, may not be passed over in silence. It is not intended, however, to indulge in a general panegyric upon Albrecht von Graefe. The readers of this JOURNAL have had opportunities, not only in its pages, but elsewhere, of learning what a great and what a good man he was. I would only touch upon the great love he had for his profession, which impelled him to almost superhuman exertions, and which, doubtless, thus hastened his early death. It was von Graefe's wont to visit each one of his hospital-patients twice a day—forenoon and evening. His private patients occupied fifty separate rooms, and the poor patients had fifty or sixty beds arranged in wards. The poor and the rich received equal care from Graefe. I have often known him, when circumstances prevented his making his evening visit at an early hour, instead of omitting it altogether, go his rounds long after midnight. He pursued the study of any mode of treatment, which he might happen to investigate, with the greatest regularity and precision. Thus, when engaged with the strabismus operation, he made notes of over eight hundred cases on which he had operated from which to draw his deductions; and some months before his death he had completed the notes of a thousand cases of cataract-extraction performed by his own method. Von Graefe's clinical lectures could not be excelled for clearness and for power of language. He was very fond of lecturing, and continued to lecture when he had

to be carried from his carriage to the lecture-theatre. He had pre-eminently the power of inspiring his pupils with that love, mingled with respect, which appears to be peculiar to the relation of teacher with pupil. But von Graefe died; and where shall we find one to take his place? Other Bismarcks and other Moltkes might be found, but not another von Graefe.

The vacant chair of ophthalmology in Berlin has been lately filled by the appointment of Professor Schweigger, formerly one of von Graefe's assistants. He has already made a high reputation as an original investigator, and he has had great experience in teaching. He will have the direction—thanks to the exertions of his renowned predecessor—of an ophthalmic department in the Charité, containing eighty beds. Red tape has great sway in Berlin, and with it von Graefe had long to contend before he obtained possession of this department in the public hospital, the arrangements having been completed only about a year previously to his death. Until then, he had been in the habit of lecturing in his own private hospital; but, knowing that this must collapse when he himself went, he was anxious, for the sake of his loved speciality, to provide some hospital appointment to be in connexion with the chair which he occupied.

In 1848, in consequence of the active part which he took in the political struggles of the time, Virchow was obliged to leave Prussia and take refuge in Würzburg. He lived there for some years as professor in the University, and during this time made many of those researches to which he owes his fame. The Prussian Government, then wishing to appoint the best man to their chair of pathology in Berlin, offered it to Virchow, notwithstanding his unchanged political feelings. He, however, only accepted the honour upon certain conditions, among which was one, that the Government should build for him a pathological institution according to a plan which he specified himself. This and his other demands were acquiesced in; and so Virchow was regained to the Berlin school in a way highly creditable to the Prussian Government, and Berlin has become the fountain-head of all the most important advances made in pathology of late years. The Pathological Institution is situated in the grounds of the Charité, but is not contiguous with the hospital-buildings. It contains two large lecture-rooms, a *post mortem* room, a pathological laboratory, a laboratory for physiological chemistry (of which more hereafter), private rooms for the professor and his assistants, etc.

FURTHER OBSERVATIONS ON THE TRUE NATURE OF THE SO-CALLED SKIN-GRAFTING.

By DAVID PAGE, M.D.,

Late President of the Royal Medical Society of Edinburgh.

IN December last, I wrote an account of my experiments on skin-grafting in the BRITISH MEDICAL JOURNAL, and showed at that time that the physiological changes involved in the growth of the graft, as well as the nature of the graft itself, were quite different from those previously supposed. Indeed, so far as I am aware, my communication, embracing, as it did, the result of microscopic investigation into the subject, was the first in which the true explanation was given of what really constitutes skin-grafting. The conclusion at which I arrived was that, when a piece of the integument is removed from a part of the body, and placed upon the surface of an ulcer showing a disposition to heal, there was no transplantation of cutis, but of cuticle, the deeper layer of which, or *rete mucosum*, formed the essential portion for subsequent development and growth; and the young newly formed cells of this layer served as the basis for the production of cicatrix. Further, I found that the artificially induced cicatrix, and that which was spontaneously projected from the margin of the ulcer, were identical in structure, and equally possessing the same low vitality and tendency to destruction, from causes that could not affect the normal integument. These results proved satisfactorily that the *rete mucosum* or *stratum Malpighii* was the part immediately concerned in the process; and that a graft, to be successful, need consist of this layer only. I held, therefore, the view that it is not a transplantation of skin, but of epithelium; not skin-grafting, but epithelium-grafting.

The numerous clinical observations that have appeared in the medical journals since May of last year, when Mr. Pollock, of St. George's Hospital, introduced the process of M. Reverdin into England, show, by their discrepant statements, that much misunderstanding exists as to the true nature of the changes observed. In several instances, the graft has been supposed to disappear for a time, and to reappear when growth sets in. This phenomenon I have elsewhere explained to arise from the simple fact that, after the desquamation of the upper and

horny cells of the transplanted epidermis, which always occurs, the young layer of rete mucosum left adherent to the granulations is transparent, and transmits the vascular appearance of the subjacent textures, in proportion to the thickness of that layer.

It has been supposed, also, that the papillary layer of the cutis constitutes the essential portion of the graft; and that while, on the one hand, too deep an incision into the subcutaneous areolar texture was detrimental to the life of the graft, too thin section, on the other, was equally to be avoided, as it would not embrace the papillary layer.

It is interesting to remark, that my views as to the epidermic nature of the graft were corroborated by the clinical results obtained by Dr. David Fiddes of Aberdeen, an account of which appeared in the *Lancet* for December 17th, simultaneously with my own communication in the BRITISH MEDICAL JOURNAL.

Dr. Fiddes used in his cases scrapings of epidermic scales simply; which, being placed upon ulcerated surfaces, were followed by the results of ordinary skin-grafting. And in the article on this subject by Dr. George Macleod, Professor of Surgery in the Glasgow University, in the BRITISH MEDICAL JOURNAL for April 1st, my views as to the value of the rete mucosum in the process are supported by the inferences drawn by him from his own experiments. He states that "the most reliable results were got from the employment of such a thickness of skin as might be supposed to include the stratum Malpighii, with such a thin section of the corium as served to give it consistence. If a deeper layer were taken, it rarely succeeded, and the use of a less deep part has been already alluded to. That the succeeding growth is due to the cells of the rete mucosum, appears probable. An experiment, alluded to further on, in which the fluid from a blistered surface was used, would point in that direction."

Dr. Macleod failed, as others have done, to obtain very satisfactory results from mere epidermic scales scraped off the surface, as proposed by Dr. Fiddes; and this I consider simply owing to the fact that the uppermost layers of the epidermis consist of cells that are being cast off as effete, and which have undergone chemical and physical changes, rendering them less certain than the newly formed and soft cells of the deeper layers. The same reasoning applies to the success of the fluid of a blister as a substitute for the epithelial graft.

The advantages sought for in skin-grafting are threefold, viz.:—1. Rapidity of cicatrization; 2. Formation of an elastic and durable cicatrix; 3. Prevention of excessive contraction of surrounding textures, and subsequent deformity.

With regard to the first of these, it is necessary that the ulcer should be in a perfectly healthy and healing condition, as evinced by the vascularity of its edges and vigour of the granulations on its surface. Hence, the weak and indolent, and callous ulcer, must first undergo the usual means of treatment to bring them into this state. In every case where a graft has been transplanted upon an unhealthy or weak ulcer, the result has been failure.

The formation of a cicatrix of greater durability and elasticity than that spontaneously formed, is an advantage which has been misconceived, and cannot, I think, be actually attained. To replace effectually the lost integument over a broken surface, nothing short of a true plastic operation would avail, such as the Taliacotian and other modes of restoring defects of the nose and lips, wherein a flap embracing the entire thickness of the cutis vera, with its vascular supply, is only partially raised and removed. One thing must be borne in mind in estimating the value of a new formation such as a cicatrix; and that is, that it is the result of rapid cell-development and growth, the final effort on the part of living textures to close over a breach of surface that has contracted to the utmost of the laxity of neighbouring parts. Now, it happens that both the cicatrices formed on an ulcer healed by the assistance of skin-grafting are identical, and equally devoid of any approach in quality or structure to true skin. The fibro-vascular or deep layer of the cutis, with the hair-follicles, sebaceous, and sweat-glands, if destroyed, cannot be regenerated; but the papillary layer, excepting those papillæ of special sense containing the terminal twigs of the sensory nerves, is probably represented in the cicatrix, although it is also true that the latter never attains the same degree of vascularity, and, as a consequence, is of much lower vitality, as shown in the manner in which old cicatrices give way under cachectic states of the system.

As for the prevention of deformity and excessive contraction of neighbouring parts, this must depend upon the original extent of the ulcer and the position in which it occurs; the less good can be effected by skin-grafting in this respect in proportion to the amount of tissue destroyed and laxity of the textures around. Take, for example, a burn of the soft parts; it is well known that deep-seated contraction, leading often to irremediable deformity, goes on for some time after the surface has cicatrised; and how mere rapidity, in the latter respect, effected by the adventitious aid

of skin-grafting, could obviate these disastrous results, I am at a loss to comprehend. The only advantages, then, of skin-grafting, I must contend to be acceleration of cicatricial growth.

The method of performing the operation adopted by myself is as follows. The most convenient source for the grafts is the skin over the biceps muscle of the arm. This should be gently pinched up by dressing forceps, and then cut off by a stroke of the scissors. The thickness of the cuticle varies in different parts of the body; but, as I hold it essential not only to avoid the subcutaneous textures, but the cutis itself, the graft should be removed without any bleeding, if possible—an occurrence which would show that the papillary layer of the cutis, at any rate, had been reached. The size of the elliptical piece of cuticle thus removed, should not exceed a quarter of an inch in diameter. The graft is then simply placed upon the surface of the granulations, which it is quite unnecessary to irritate or disturb in any way; and the site chosen should be that where new growth is most desirable. To retain the graft in position, I have used strips of isinglass plaster placed over the surface of the ulcer, and carried partly around the limb. The ordinary dressings may then be applied, and the parts treated in the ordinary way, with systematic bandaging and rest. The progress of the graft may be observed three or four days later, carefully raising the strip of plaster; and in a period varying from that time to a week or so, growth begins. The superficial and older layer of the epidermis has then desquamated, and will be found lying loose on the surface, while the deep layer of the rete mucosum is left adherent to the granulations, forming a delicate pellicle of a bluish tint. Henceforward, from day to day, as the dressings of the ulcer are renewed, and the progress of the graft seen, its area grows larger and larger by cell-development at the periphery, probably, too, accompanied by coincident increase of growth from the margin of the ulcer, which seems to receive a fresh stimulus from the presence of the graft. Ultimately, the surface will close over, and present the ordinary appearance of a cicatrix. Why transplanted epithelium should lead to the development of its elements, while the granulations themselves appear to be incapable of setting up similar points of cicatrization spontaneously over the surface, and growth, under ordinary circumstances, only proceeds from the margins, is difficult to understand. Nevertheless, it is a well ascertained fact. Nor does the transplanted epithelium afford a mere point of attachment for such a spontaneous formation; as experiments with pieces of India-rubber and sheepskin, substituted for skin-grafts, showed that these only acted as foreign matters, causing destruction of the granulations on which they lay.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE XIV.—Monday, March 20th.

THE Ungulata form a large group, containing, besides the existing forms, many extinct species. They are nearly all purely vegetable feeders; a few are omnivorous. They are divided into two sections or suborders—the Artiodactyles, having an even number of toes on each foot; and the Perissodactyles, having an odd number. These two suborders differ in their teeth and in other particulars.

Of the Perissodactyles, only three existing types are known—viz., the Horse and its allies; the Rhinoceros; and the Tapir. These agree one with the other in many points, including the teeth; and their affinities are shown still more distinctly by the study of extinct forms.

Numerous remains of animals, varying in size from the common Horse to the Pig, have been found in the eocene deposits of the Paris basin. These were arranged by Cuvier under the name of Palæotherium. In general structure, the animals probably resembled the Tapir, perhaps being allied to the Rhinoceros. The teeth were forty-four in number, as is very common among the extinct Ungulata; the formula being $i \frac{2}{3}, c \frac{1}{1}, p \frac{4}{4}, m \frac{3}{3} = 44$. In the Palæotherium, the incisors and canines were of moderate size; next to the canines was a space; beyond this was a row of molar teeth similar in character to each other, the first and second, however, being rather smaller than the others. There was no marked distinction between the præmolars and the true molars. The crowns were square and short. In the upper molars, clefts or sinuses ran into the dentine from the outer and inner surfaces, forming sulci, which became gradually obliterated as the tooth wore down, leaving patterns of various forms. In the lower molars, there were two crescentic ridges, with the hollows turned towards each other.

The teeth in all the modern Perissodactyles are modifications of this form.

The Tapir is now found in the northern parts of South and some parts of Central America, and in the south-east of Asia. Fossil remains, closely allied to the existing species, have been found in Europe. The Tapir wants one of the lower præmolars; the formula being $i \frac{3}{3}, c \frac{1}{1}, p \frac{4}{3}, m \frac{3}{3} = 42$. The incisors are short, rather thick from before backwards; the central upper incisors are smaller than the outer; in the lower jaw, the central incisors are the larger. The upper canines are separated from the incisors by a space, and are smaller than those of the lower jaw, which lie close to the incisors. Beyond the canines is a space; and after this come the molars, which present at first sight two strong transverse ridges, joining the tubercles of the tooth in such a way as to leave two sinuses. The tooth has two roots on the outer and two on the inner side. The milk-teeth are very like the permanent set, and—as in all Ungulata—are shed late.

In the Rhinoceros, there is a great tendency to absence of the incisors and canines. In the large African Rhinoceros, the premaxillary bone is very small, and the incisors are wanting in both upper and lower jaws; though in the young animal there are two above and two below on each side. In the Indian Rhinoceros—both the two-horned and the one-horned species—the incisors are well developed, two in each jaw on each side. In the upper jaw it is the outer incisors, and in the lower jaw the central ones, which are rudimentary or absent. There are no canines. In the molar series, the first tooth is a small one, not preceded by a milk-tooth; it appears early, and often is soon lost. All the others are much alike, and increase in size from before backwards. Taking the middle one as an example, it is seen to have a crown of no great depth, and four large roots, two of which are sometimes connate. The teeth are broader on the outer than on the inner side, which renders the whole series much arched. Along the outer side of the tooth there is a large ridge; there are also two deep ridges, evidently like the transverse ridges in the Tapir, but more oblique, leaving a very deep depression or sinus. In the Rhinoceros, processes often run out from the posterior oblique ridge. While the upper molars approach in form those of the Tapir, the lower ones resemble those of the Palæotherium in having two concentric ridges with the hollows turned inwards.

The usual dental formula in the Horse is $i \frac{3}{3}, c \frac{1}{1}, p \frac{4}{4}, m \frac{3}{3} = 44$. The upper incisors lie close together, forming nearly a semicircle. The crowns are broad, and rather compressed from before backwards; the incisors are nearly even in size. The lower incisors lie close together, are straighter than the upper, and project forwards more. In the Horse (including the various members of the genus *Equus*, the Ass, Zebra, etc.) alone among existing Mammalia, and in a few allied extinct genera, the incisors have a folding in of the enamel at the surface of the crown, proceeding some way into the tooth. As the surface-enamel becomes worn down, there is left an appearance of a space or hole. After a time, as the wearing down goes on, the space becomes narrowed, and at last there may be left merely a surface of dentine surrounded by enamel, and having in the centre a small dark spot—the remains of the pulp-cavity, filled up with osteodentine. The appearance here described is known as the “mark”, and is used in estimating the age of horses. This involution of the enamel is less deep in the lower than in the upper teeth. The canines are almost rudimentary in the female; in the male, they are well developed. They are simple in structure, rather conical, hollowed a little on the inner side, both in the upper and the lower jaws, and curved on the outer side. The first præmolar has no predecessor; it is very rudimentary, and often disappears with the milk-teeth. The others are very similar to each other in structure; the first is very large, and the hinder one is rather smaller than the others. The crowns are very long, and the roots short; the crowns extending a long way into the jaw before beginning to separate into roots. As the tooth wears away, the crown continues to push out towards the surface, producing thus a change in the position of the roots, and leaving apparently the same height of grinding surface above the level of the jaw. The crown is covered with cement on its exposed portion, but not on that which lies within the jaw. The surface of the upper molars is marked by convolutions of the enamel, forming, as the tooth wears down, a curious pattern of sinuses and islands. The lower molars are much like those of the Tapir and Rhinoceros, but with a more complicated pattern.

The milk-teeth in the genus *Equus* are very complete, and much resemble the permanent teeth. The canines are either absent or rudimentary. The milk-teeth appear generally soon after birth; and dentition, both temporary and permanent, is usually earlier in the upper than in the lower teeth. The molars are usually developed at a comparatively early period. The first teeth which appear are the first and second milk-molars; then come the central incisors; after these

the next incisors; then the last molars; and finally, at from six to nine months, the third incisor. The small anterior præmolar appears during the primary dentition. Of the permanent teeth, the first true molar appears a little after the end of the first year, and is followed by the second before the end of the second year. At about two and a half years, the first præmolar appears; and at the end of three years, the last milk-molar is alone remaining, and the first permanent incisors appear. The second incisors appear from three and a half to four years after birth, and the outer incisors at the fourth year. Dentition is complete at the fifth year. The teeth wear down in the order in which they appear, and hence the “mark” differs in the various teeth while the animal is of the same age. After eight years, there is no “mark” on any of the teeth; only a simple surface of dentine surrounded by enamel, and a dot of osteodentine in the centre. The upper teeth retain the mark longest; but the period varies according to the food of the animal.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

THE LONDON HOSPITAL.

PATHOLOGICAL DEPARTMENT.

DEATH FROM CHLOROFORM.

THE following case is of interest, as showing one of the ways in which death takes place from chloroform. The patient was a female, aged 48, who had suffered a long time from extensive syphilitic ulceration of the leg. She had taken chloroform exactly a week previously, that an attempt might be made to obviate some contraction about the knee-joint. She had borne its administration well, but it was followed by vomiting, which lasted three days. She had a high temperature, and two rigors, which were probably due to the operative measures. She took scarcely any food up to the day of operation, and had to be sustained by enemata.

On the day of her death (May 3rd), chloroform was being administered by the House-Surgeon, who had given it on the former occasion, when, before insensibility had been produced, she made a convulsive movement, and, almost immediately afterwards, *she was seen to turn very suddenly livid*. Her pulse at this moment was felt to beat very rapidly, and the next moment it ceased quite suddenly. She gave one or two spasmodic gasps.

Artificial respiration, sprinkling and flipping with cold water, were immediately resorted to, and a small quantity of blood was abstracted from the jugular vein. There were one or two gasps for breath—probably death-throes; but, although restorative means were kept up for above half an hour, no signs of life appeared. Mr. Couper examined her eyes with the ophthalmoscope, and found the retinal veins greatly distended.

The *necropsy* was made on the following day by Dr. Sutton. The body was much wasted. There were three granulating ulcers in front of the left tibia, surrounded by thickened indurated skin. Over the abdomen, there was a layer of subcutaneous fat, an inch thick. The pleuræ were healthy. The *lungs* weighed one pound nine ounces. On section, they presented a dark red appearance, but very little blood escaped from the lung-tissue, when it was firmly pressed. These conditions pervaded both lungs. There were patches of collapse in both. The bronchial tubes contained a little mucus, but in other respects they were normal. The *heart* weighed eight ounces. The valves and cavities of the right side were healthy. In removing the sternum, the veins of the neck had been divided, and blood had escaped in consequence. The right side of the heart was, in this manner, probably emptied to a great extent. The left ventricle was not very firmly contracted, as is usually the case when a patient has died in consequence of the circulation through the lungs being greatly impeded, nor was it very flaccid and filled with blood, as is seen after death from asthenia. The condition of the left ventricle resembled what is seen in death from coma. It contained scarcely any blood. A little fluid blood flowed from the auricle when the ventricle was pressed upon. The aortic and mitral valves were healthy. The cavity of the left ventricle was normal in size; the muscle was pale and very soft. No transverse yellow lines were observed extending across the muscle, such as are often seen when the muscular fibre of the heart has undergone fatty degeneration. The *liver* was soft, and easily broken down. The *spleen* was normal. The *kidneys* were normal. Their surfaces were smooth

and the surface veins were very much distended. On section, the veins running through the medullary cones and cortical parts towards the surface, were distended, and the intervening kidney-structure was very pale. In the *stomach*, the mucous membrane was in parts congested, and there were several minute blood extravasations in it.

Dr. Sutton remarked, that the patient apparently died in consequence of the blood being unable to pass through the lungs. The lungs had the dark-red appearance similar to what is seen when death takes place during the collapse stage of burns; and the diminished weight of the lungs showed that they did not contain their normal quantity of blood. The venous system was very much congested; and the comparatively empty condition of the left ventricle, and the appearance of the kidney-tissue (excepting where the veins were distended), tended to show that the arterial system was in a great measure empty.

The evidence tended to show that the patient did not die from *asthenia*, or, in other words, from failure of the left ventricle, for it was not very flaccid, nor was its cavity full of blood, as is usually seen when death is due to the latter cause. The heart was, however, small, and the muscle very soft, and the microscope showed that it had undergone so-called fatty degeneration to a considerable extent.

THE GENERAL INFIRMARY AT LEEDS.

RETENTION OF URINE: PARACENTESIS ABOVE THE PUBES WITH THE PNEUMATIC ASPIRATOR.

(Under the care of Mr. SAMUEL HEY.)

W. B., aged 45, was admitted May 18th, under the care of Mr. Hey. He had had difficulty in passing his urine for the last six years. During the last month, this difficulty had much increased; he had only passed a small quantity at a time, in a small stream, or drop by drop. His shirt had been constantly wet, owing to the urine dribbling away from him. He had not passed any urine at all for the last twenty-four hours before admission, and had consulted a surgeon, who, being unable to pass an instrument, sent him to the Infirmary.

On examination, the bladder was found to be much distended, extending higher than the umbilicus. He had a stricture in front of the bulb, through which an instrument could not be passed. He was ordered to have thirty-five drops of liquor opii sedativus and a warm bath. In three hours, as the patient was in no way relieved, he was placed under chloroform, and another attempt made to pass an instrument, both the silver catheter and the catheter *à boule* being used. These attempts failing, it was resolved to tap the bladder above the pubes. The finest needle (Weiss's instrument) was introduced about an inch above the pubes, and, being attached to the syringe previously exhausted of air, was plunged into the bladder, when the urine immediately flowed into the syringe. Forty-three syringefuls were drawn off, making 86 ounces of urine; the whole process taking one hour and twenty-five minutes. The patient expressed himself relieved, and soon afterwards went to sleep. During the night, he passed about a pint of urine, and has since then been in the same state in which he was before the retention set in. He is at present (May 20th) in the Infirmary, waiting for further treatment.

GLASGOW ROYAL INFIRMARY.

DISLOCATION OF THE FEMUR BACKWARDS AND UPWARDS, WITH FRACTURE OF THE ACETABULUM: REDUCTION AFTER THREE MONTHS.

(Under the care of Dr. JAMES MORTON.)

DAVID MCKINLAY, miner, aged 18, was admitted into the Infirmary on March 2nd, and gave the following history. On the 5th December, 1870, the patient was working at the pit-bottom, when a hutch came down, and one of the props, which had been insufficiently secured, gave way, and a large stone fell with great violence upon his right hip (or buttock), he being at the time in a stooping posture. He became insensible, and was removed to his home and seen by a surgeon, who said that there was nothing but a bruise. There being considerable swelling, fomentations were ordered; and it was stated that in a month or two he would be all right. After this he was seen weekly by the surgeon for six weeks, when, becoming impatient, he called in a noted bone-setter, who pronounced him to have dislocation, placed him on a table, pulled his leg once or twice, till "something gave a crack", and said that it was "all right". The bone-setter then ordered a wide (*sic*) belt to be worn round the pelvis, and rock-salt baths to be taken. Since this alleged reduction the patient had continued unable to use the limb, and walked with great difficulty by the aid of crutches.

On examination, the right leg was found to be two inches shorter

than the left. On extending the limb, there was arching of the back, with the convexity forwards; the whole limb was adducted, and could not be abducted; the toes of the injured limb rested over the dorsum of the left foot, just below the instep. The shortening appeared greater when the thighs were brought to a right angle with the pelvis. Slight extension, succeeded by rotation, produced a kind of knocking, as if the head of the femur struck against a smooth part of the dorsum of the ilium. The head of the femur could be obscurely felt under the gluteal muscles, and above that a firm prominence, as of bone, was perceived. From these appearances it was clear that there was a displacement of the head of the femur, and that it was probably complicated with fracture of the acetabulum, a portion of this cavity being carried upwards before the head of the thigh-bone. These facts were ascertained on March 3rd, when the patient was examined under chloroform; and on the 6th, after consultation, it was agreed that reduction should be attempted.

On the 8th, after considerable efforts by the flexion method, reduction was at last effected by the pulleys. In this, assistance was kindly rendered by Drs. Dewar, E. Watson, and Paterson. A long splint was immediately applied to prevent redisplacement.

March 9th. The limb continued in good position; there was much swelling in the upper part of the thigh; the perineal band was relaxed a little, and fomentations were assiduously applied.

March 11th. The swelling was much diminished. Weights were attached to the extension-plaster.

March 16th. The groin was found slightly galled. Water-dressing was applied.

April 2nd. The patient was allowed to get up for the first time on crutches. He walked well, though by comparative measurement the right limb seemed slightly shorter than the left.

April 20th. He was dismissed quite well, and much pleased with the result.

REMARKS.—The history of this case is by no means an unusual one in respect to the bone-setting, as the production of a *crack* or *snap* does not always indicate a replacement of the bone. The diagnosis of dislocation was not difficult; but more care was requisite to establish the fact of fracture of the acetabulum, though now there can be little doubt of it, for after the reduction the firm prominence had left its former position, which can only be explained by supposing that it had followed the head of the femur in its descent. The length of time which had elapsed (fully three months) from the receipt of the injury, and the nature of the injury itself, rendered it doubtful whether success would follow our efforts at reduction, and, if successful, whether the reduction could be maintained, or, in other words, whether the displaced bones would not return to their abnormal position in spite of all our care. In the reduction, I believe, we were completely successful; in the retention, partially so—probably more so than we had any right to expect. I say partially, however, because I believe that the head of the femur now rests partly in the space where the fractured portion of the acetabulum was removed at the time of the accident, and partly in its natural cavity.

Now, it is well known that reduction has occasionally been effected, at a later period, in old and relaxed subjects; in such it is sometimes possible after many months; but success is not so frequent in younger and more muscular persons, such as this young man was. Even in an uncomplicated case success is often doubtful; with the presence of fracture of neighbouring parts, it becomes still more problematical.

In regard to the mode of replacement, I may remark that the manipulations of the flexion method in loosening the parts appeared to facilitate the action of the pulleys subsequently employed.

On the whole, there is some reason for gratification in the fact that we succeeded in restoring to the young man the use of his limb. At the time of his admission it was useless; now he can use it easily, and in a short time it ought to be as serviceable as ever.

PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY.

OLD STANDING DISLOCATION OF THE ELBOW TREATED BY EXCISION, AND ACCORDING TO THE ANTISEPTIC METHOD.

(Under the care of ANDREW MARSHALL, M.D.)

A BOY, aged 12, was admitted on March 4th, 1871, with a stiff elbow-joint. He reported that, when wrestling with another boy a few weeks previously, he was thrown violently to the ground, falling upon his right hand, and became unable to use his elbow-joint. A female quack was consulted, who pronounced the joint to have been put out. She also professed to "put it in again"; and, having placed a short straight splint in front of the joint, bandaged it on, thus fixing the limb

in an almost straight position, in which, when the splint was removed, the arm remained.

On admission, the elbow-joint was much swollen, and there was much pain in it. The boy could not execute either flexion, pronation, or supination of the arm. Passively, a certain amount of pronation and supination could be effected; and, after the swelling had somewhat subsided, the head of the radius could be distinctly seen and felt to rotate under the integument at the back of the joint. Any attempt to bend the arm gave great pain, and was entirely futile. The olecranon projected further behind, and extended higher up, than usual; and a prominence existed in front of the joint, corresponding to the lower end of the humerus. The radius and ulna had been dislocated backwards.

The boy was placed under the influence of chloroform, and an effort made to reduce the dislocation. The attempt was unsuccessful. On April 21st, chloroform was again administered, and a longitudinal incision three inches and a half in length was made over the posterior aspect of the joint, through which the heads of the radius and ulna were protruded and sawn off. The integument round the joint was first well washed with the carbolic lotion (1 in 40). All the instruments used were wet with the same lotion; and, in the form of spray, it was thrown over the part by an assistant during the whole time of the operation. No vessels required ligature. The edges of the wound were loosely brought together by antiseptic sutures, prepared according to Lister's directions, by steeping silk thread in a mixture of beeswax and carbolic acid. A double layer of the antiseptic plaster was made to envelope the limb from the middle of the arm to the wrist. A cloth to absorb discharges was applied at each end of the plaster, and the whole secured by a bandage. The patient was put to bed, with the arm placed on a pillow.

On April 22nd, there had been rather profuse hæmorrhage from the wound. There was no pain or swelling in the arm. The dressings were removed under a cloud of carbolic spray, and one stitch was withdrawn. They were then reapplied as before, with the addition of a double layer of the protective recommended by Mr. Lister. On the 25th, the state of the limb was satisfactory. All the stitches were removed; the dressing were reapplied; the arm bent; and a splint applied to retain it in that position. There had apparently been about a drachm of discharge. On the 29th, there was apparently about half a drachm of discharge. There had been no pus, and no pain. The wound was closed, the line of incision being occupied by a narrow strip of granulations. On May 5th, the boy had considerable power in his arm. He could carry his hand to his mouth; and on the 10th he could lift a tumbler with water from the table to his mouth without assistance.

It will, of course, be a considerable time ere this boy has anything like the perfect use of his limb; but the wound is now completely healed; and during the progress of the case, since the operation, there has been neither local nor constitutional disturbance. As an illustration of the antiseptic system of treatment, the case is, therefore, now complete, and as such it is recorded.

CLINICAL MEMORANDA.

DEATH FROM THE BITE OF A VIPER.*

R. W. ADAMS, a healthy child, aged 3½, was brought to my surgery on the 13th July, 1870, by his grandmother, wife of a labourer living on Ashdown Forest, who stated that about two hours previously she had met the child crying, and he told her that, while gathering flowers on a bank, he had been bitten by a large adder on the finger. The child's hand and arm were much swollen and livid in appearance, and on the middle finger near the knuckle were two slight wounds like scratches. The child was pale and almost pulseless, and the skin was bedewed with a clammy sweat. Adder's oil had been freely applied by a neighbour to the child's hand and arm; and, on his arriving at my surgery, my assistant, Mr. Blunden, applied solution of ammonia and administered brandy and ammonia internally. The child never rallied, but lay in a restless, moaning state, and died twenty hours after the bite. Twenty-four hours after death I found the arm, up to the shoulder, much swollen, and of a leaden hue, with some vesications and ecchymosis; the face and neck were slightly swollen. The child did not appear to have suffered much from pain.

Death from snake-bite is rare in this country. The season is said to have some influence on the strength of the virus. I have seen four or five cases in adults where the symptoms have been severe; the limb being swollen to double its natural size, and the depression of the vital powers considerable. WM. WALLIS, Hartfield, Tunbridge Wells.

* Read before the East Surrey District of the South-Eastern Branch.

THE Subscriptions to the Association for the year 1871 became due in advance on January 1st. All which are not already paid, should be forwarded to the General Secretary, Mr. T. Watkin Williams, 13, New Hall Street, Birmingham; or to the Secretaries of Branches.

BRITISH MEDICAL JOURNAL.

SATURDAY, MAY 27TH, 1871.

BABY-FARMING AND WET-NURSING.

WE call attention to the communication of an esteemed and very able correspondent on this subject. It treats at length a branch of the subject of preventable infant mortality, which has all the urgency of pressing actuality. There can be no doubt that in regard to wet-nursing we do all incur a very serious responsibility; and it seems to our correspondent, as to ourselves, that the members of our profession do by no means creditably acquit themselves of that responsibility. We invite a careful perusal of the letter of "F.R.C.P.," and suggest the subject on which he writes as one regarding which it is desirable that some conclusion should now be attained.

We may observe, in so far as concerns a relation to the Select Committee of the House of Commons now sitting, that the inquiry of the Select Committee does entirely cover, and indeed expressly include, the subject suggested by our esteemed correspondent. The Committee is one on the Protection of Infant Life, expressly referring in its inquiry to children put out to nurse, whether singly or in numbers. We entirely agree with our correspondent; and we would earnestly appeal to all our readers who may be in possession of facts bearing upon this inquiry in any of its branches to forward them to us, or to send us such analyses of their data as may either be submitted to the Committee or may indicate the kind and degree of evidence which they are prepared to give if called. The precise points as to which data are wanted are:

I. The mortality of nurse-children—that is, of children put out to nurse, singly or in numbers—as compared with those of the same class brought up by their mothers.

II. The mortality of illegitimate as compared with legitimate children.

III. The extent to which the excess mortality is due to the neglect of the children by the nurses or foster-mothers whom they are entrusted.

IV. The existence and extent of baby-farming in other parts of the country than in London.

V. The influence on health and mortality of the habit of drugging children with opiates in the day-nurseries of the manufacturing districts.

VI. Any other reasons for regulating and supervising the care of infants put away under the charge of hired nurses by married or unmarried mothers.

The Committee now sitting will probably not conduct a very protracted inquiry; and it is extremely desirable that as much evidence of this character as may be available should be immediately brought together. We appeal with some confidence to our readers—especially to those in large provincial towns and manufacturing districts—for communications conveying their experience or their opinions in the matter, and for copies of, or reference to, documents bearing upon it. The excessive mortality of children insured in burial clubs is a subject entirely cognate to the inquiry.

SPECTRUM ANALYSIS OF BLOOD-STAINS.

THE evidence of Dr. Letheby on this subject in the case of the Eltham murder has attracted a good deal of attention, and is only exceeded in interest by its very important bearings on future medico-legal investigations of blood-stains. We summarised last week the results on some

of the chief points of novelty. The employment of spectral analysis gave special interest to the evidence. On this subject one of our contemporaries has made some observations which call for correction. Their tendency is to ward off this important mode of investigation, and to ignore its value and reliability. The most eminent authority on this subject has for some years devoted the greater part of his time to investigations by means of the spectrum-microscope, and has examined many hundred different spectra, and seen those of the colouring matter of blood, and of the various compounds derived from it, times without number. Mr. Sorby states that, as his experience has increased, so much more has increased his confidence in the recognition of blood by this method. Of course an inexperienced observer could not be trusted, any more than any one ignorant of chemistry could be relied on for detecting poisons. Mr. Sorby observes that he can only explain the remarks in the comments in question by supposing that the writer is not conversant with the subject; for how otherwise could he say that "no discovery has yet been made by means of those (absorption) spectra", when much light has been thrown on the behaviour of blood in presence of oxygen and other gases, and when there have been discovered in some of the lower animals other substances than hæmoglobin, having similar properties, and supplying its place, besides some hundreds of different colouring matters in animals and plants, which could not have been studied in any other manner? Moreover, he points out that, if the writer ever saw the spectra of blood, it must have been under most unfavourable circumstances—he must have examined a bad preparation with an unsuitable instrument, perhaps out of focus. It is difficult otherwise, he says, to understand how he could say that "all that is to be observed is a little *dimness* here and there in the spectrum. The dim spaces, which are not sharply bounded, have been dignified with the name of absorption-bands". The fact is that the absorption-bands seen in the spectra of oxidised hæmoglobin and deoxidised hæmatin, instead of being a mere *dimness*, are as black and distinct as could be desired. They are, indeed, as well defined as if we had a piece of rainbow upon paper and had marked bands on it with the blackest ink. While admitting that, in the case of some substances, absorption-bands are indeed faint, or quite absent, Mr. Sorby insists that that fact, amongst many others, only serves to distinguish them still more certainly from those of blood; and that it is the fault of the experimenter himself if, except in a few special cases, he fail to recognise a blood-stain containing only the hundredth of a grain of blood, and if he do not easily recognise one that has been kept dry even for a period of fifty years.

For a description of the method to be employed in various cases, our readers are referred to Mr. Sorby's paper on this subject in *Guy's Hospital Reports*, third series, vol. xv, p. 274, 1870; and to Dr. Letheby's paper in the third volume of the *London Hospital Reports*. Of course it is not asserted that human blood can be thus distinguished from the blood of other animals; but it is unhesitatingly affirmed that we can distinguish blood from all other animal and vegetable colouring matters.

Mr. Sorby's evidence on this subject is very weighty, and entirely confirms Dr. Letheby's conclusions. The subject is one of much importance to medical jurists, and it is not desirable that it should be obscured by error.

MEDICAL CORONERS AND MEDICAL EVIDENCE.

In a letter addressed last week to the *Bridgewater Mercury*, Mr. Henry B. Hurman, Surgeon, asks the following questions: "What class of cases are those in which medical evidence is inadmissible or totally unnecessary? or is this point to be decided by the freak of the coroner prior to the empanelling of a jury? I have been within the last six months called to seven fatal accidents and sudden deaths, and in six of these cases it has been thought proper for medical evidence to be adduced at the inquest. Why in the seventh case it should have been omitted I am at a loss to understand, especially as it was, to all intents and purposes, one that affected the public at large." Mr.

Hurman here alludes to a very dangerous level crossing on the Bristol and Exeter Railway, near Bridgewater, between a public road and one of the main streets of that town. Another correspondent at the same time writes and urges that in this case, had the accident occurred in the borough instead of beyond its confines, the coroner or solicitor would have called in medical testimony which would have settled some important points in the case as to its being a pure accident, the result of the man's own carelessness, or arising from a sudden attack, such as a fit or otherwise. It appears that the man was standing by the down-line apparently watching the up passenger train, which was expected; that at the same time, whilst he was looking towards the town with the right side of his head towards the down-line, a down "fast goods" approached, and he was killed by a blow on the *left* side of his head, which was smashed in. The evidence went to show—1. That the man had lost his wife some few weeks since; 2. The driver of the train said he saw the deceased before him and signalled with his whistle, but that his mate observed "the man has fallen" as if he had done so previously to contact with the train; 3. That the side of the head injured was not the one presented to the unexpected train when he was first seen to be on the line. All these points raised questions more or less. First, in accidents of this kind suicide may reasonably be suspected, especially under the circumstances detailed; at all events, testimony from a medical witness would have been desirable. The deceased had had one cause operating on his mind lately—the death of his wife. Then, again, was it a fit, as it appears that he fell coincidently with the whistle-signal, if not before it? This question alone is a medical one, and might have been answered had a medical witness been called. As regards the danger of such crossings as the one on which the accident happened, no evidence could be better than that of medical men, whose experience in many cases, which fortunately do not necessarily come under the coroner's notice, would be most valuable. One of the great advantages in a coroner being a medical man is, that by the nature of his education and experience he is better qualified than any other person could be to seize the point in every case upon which medical testimony and opinion ought to be taken. A coroner is a judge, and not a witness or a consultant; and his opinion as a medical man ought never to be substituted for that of an independent witness, which it really would be if he used it in directing a jury either as to the necessity of their calling in another professional man in the first instance, or as to their finding in the last. In the present case the finding of "Accidental death" is unsatisfactory, inasmuch as none of the medical questions which the evidence suggested have been decided.

Medical coroners owe much not only to their professional brethren but to the science of medicine generally; and as they have it in their power to advance the one and uphold the dignity of the other, they ought to seize every opportunity of exercising that power; they ought to stand between the public and their brethren, and not allow important cases to be denied the opportunity of having medical evidence for the sake of saving a small and often tiresomely earned fee.

From the letter which we have quoted, it would appear that the law coroner of the borough seeks the aid of medicine in his courts, whilst the medical judge of the county thinks himself all-sufficient. This is not what the advocates of medical coronerships have sought in their strenuous efforts to support our profession.

MEDICAL RELIEF IN ENGLAND AND IRELAND.

MR. CORRANCE, M.P., and honorary member of the Poor-Law Medical Officers' Association, is making a tour through Ireland for the purpose of personally investigating the working of the Medical Charities Act. In order to render his inquiries as complete as possible, he has addressed the following letter to the Poor-law inspectors and dispensary physicians in Ireland.

You would much oblige me if you would kindly answer the following questions, and return them to me, at the above address, at your earliest convenience.

1. Has the operation of the Medical Charities Act (Ireland) enabled

the Guardians to enforce a system of indoor relief without undue hardship towards the indigent classes?

2. Has it led to a diminution of pauperism arising from sickness?
3. Has it exercised a controlling effect in diminishing the severity of epidemic outbreaks and the amount of zymotic disease?
4. Have the medical profession, acting as general practitioners, any just ground of complaint arising out of its operation?
5. What is the feeling of the medical profession generally in Ireland respecting it?
6. Has there been any appreciable falling off in poor relief expenditure in any district since it came into operation, the diminution of population in such district being taken into account?
7. Has it led to a better administration of the Poor-law?
8. Are there any, and if so, what are its principal defects?
9. Are you favourable to its operation, and would you recommend it for general adoption?

MR. JOHN TOMES, F.R.S., and Mr. Samuel Cartwright, have been appointed consulting dental surgeons to the Dental Hospital of London.

THE President and Council of the College of Physicians have issued cards for a *soirée* on the evening of Wednesday, the 14th of June.

THE President and Fellows of the Royal College of Physicians of London have issued cards of invitation to a *Conversazione* at the College on June 14th.

AT a recent Court of Governors of St. Bartholomew's Hospital, Mr. Paget, F.R.S., was appointed Consulting-Surgeon to the Hospital. At a Court held to-day (Thursday) at 12 o'clock, Mr. Callender was elected Surgeon. There is now, therefore, a vacancy for the office of Assistant-Surgeon to the Hospital.

AID TO THE SICK AND WOUNDED.

DR. MOSETIG of Vienna, who was the representative of the Austrian aid-society in Paris during the siege of that city by the Prussians, says, in an article in the *Wiener Medizin. Wochenschrift*, that the amount expended by the French society for the aid of sick and wounded soldiers and sailors during the war may be calculated at four millions of francs (£160,000). Much of this sum was furnished by the collections and voluntary contributions raised in foreign countries, especially England. How great, says Dr. Mosetig, has been the benevolent action of the noble Sir (*sic*) Richard Wallace, who himself resolutely endured all the horrors of the siege! For what great sums must his liberality be thanked! And how great has the private benevolence of the English people shown itself to be! The columns of the *Times* speak more loudly than any assertion.

THE UNITED HOSPITALS' ATHLETIC CLUB.

THE annual sports of this club are to come off on Thursday, at Lillie Bridge, West Brompton. The increasing popularity of these meetings, and the admirable arrangements carried out for the comfort of all, not to allude to the large number of entries for the different events, require only favourable weather to make the meeting of 1871 more successful than the previous ones.

THE OFFICE OF PHYSICIAN-ACCOCHEUR AT ST. MARY'S.

WE understand that, the medical staff and committee of St. Mary's Hospital having intimated an opinion in favour of Dr. Meadows's candidature for the vacant office of Physician-Accoucheur and Lecturer on Obstetrics in St. Mary's Hospital and Medical School, as possessing the most matured claims to the appointments, the other gentlemen who had become candidates have withdrawn from competition. The rules of the hospital refer the claims of candidates for report to the Medical Committee, before committing them to canvass the general body of Governors. The inconvenience and cost of such a general canvass is greater at St. Mary's Hospital than at many others, because the body of Governors is, we believe, larger than at any other hospital in London. The evils of referring the election of a professional candidate, of whose claims the Governors can have no reliable personal knowledge, to so large and mixed a body, have been the subject of

frequent comment. All men are loth to relinquish power and patronage; but the fifteen-hundredth part of the right of appointment to an unpaid office, might easily, we imagine, be relinquished without a struggle. The Governors of the Hospital would, we believe, consult their own dignity and comfort, and the interests of the Hospital, by relieving candidates from the necessity of submitting themselves to the laborious and irritating ordeal of a contested election with a constituency so large. The course taken in this instance is very satisfactory; but it is due to the unanimity of the staff, and the good sense of the candidates, rather than to the excellency of the rules under which they had to act. Even in this instance, they were unnecessarily put to no small preliminary expense and trouble, by the operation of these rules.

CHARITY ORGANISATION SOCIETY.

THE Medical Subcommittee which was recently appointed to consider the best means of promoting the objects of the Society, so far as they were connected with medical relief, has met on several occasions, and, having unanimously agreed to recommend the provident system, has nearly completed the drawing up of a code of laws which will be recommended to the notice of the promoters of provident dispensaries, in order to obtain their co-operation. The authorities of charitable dispensaries wishing to reconsider the mode of admission to the benefits of their institutions, should avail themselves of the mass of information collected through the labours of the Committee. It is open for them to do so freely.

UNIVERSITY OF CAMBRIDGE.

THERE will be an election to a Science Fellowship at Corpus Christi College at the beginning of Michaelmas Term. Candidates must have passed all the examinations required by the University for the degree of B.A., and must not be in possession of any benefice or property which would disqualify for retaining a Fellowship. The examination will commence on Monday, October 9, and will be specially in chemistry. Candidates are requested to communicate with the President, either personally or by letter, at their convenience, before the end of Act Term.

GUY'S HOSPITAL: DR. STEELE'S ANNUAL REPORT.

THE annual report on the general condition of the hospital, and the statistical tables of the patients treated during the past year, prepared by Dr. Steele, the Superintendent, has just been issued. It contains, as usual, an amount of information, arranged for easy reference, which is of great value. The report is this year varied by a detailed and interesting account of the new wing about to be opened on Wednesday, by the Treasurer, and which we have already pretty fully described, specially alluding to the novelties in the ventilation and heating which have been introduced into the new building. The wards have been named after Bright, Addison, and Astley Cooper—a just and interesting tribute to the memory of three of the greatest men who have thrown lustre on the medical history of Guy's Hospital.

FREAKS OF NATURE.

A VERY remarkable *lusus naturæ* has been shown this week to many members of the profession, prior, we presume, to more public displays. The singularly able and interesting lecture by Sir James Simpson, in the BRITISH MEDICAL JOURNAL of March 16th, 1869, on the Siamese and other united twins, gave very complete information of all the recorded examples. Miss Millie Christine, the intelligent and even accomplished individual or individuals now in London, are, however, more remarkable in many respects than either the Siamese twins or any of the recorded instances described and figured in Sir James Simpson's lecture. Millie Christine sings with great taste and skill a duet with herself in a soprano and a contralto voice, and dances with four legs or two with equal animation. These united twins are fused in the pelvic region, the sacral bones being completely fused, and the circumference of the union being twenty-seven inches. They resemble greatly Judith and Helen, the Hungarian sisters, who died in the convent of

Presburg in 1723 (BRITISH MEDICAL JOURNAL, 1869, vol. i, p. 230). Like them, they have but one anal and vulval aperture, with, however, two bladders. Below the point of union, any impression on the skin of the one is immediately felt by the other; above it they are entirely distinct beings. They have been very carefully examined and described by Pancoast, Gross, and other American authorities, and we reserve any further account till we receive these descriptions. We may, however, very fairly and justly state that so remarkable a freak of nature has never come under notice before, at an age when all its consequences can be so fully appreciated; and, in this case, there is nothing repulsive to mar the interest which it must create. As a matter of merely scientific interest, the "two-headed nightingale" will bear the palm which was awarded to the Siamese twins.

VACCINATION AND SMALL-POX.

A RETURN of the number of vaccinations performed in the year ending September 29th, 1870, has just been presented to the House of Lords. Below we give the number of births, the number of vaccinations under one year of age, the percentage of such vaccinations to births, and the number of deaths from small-pox in the four quarters of the year 1870, and in the first quarter of the year 1871.

Registration Divisions.	No. of successful vaccinations.	Births.	Per-centage of vaccinations to births.	Small-pox deaths. Year 1870.	1871 1st quar.
1. Metropolis ...	35,576 ...	112,250 ...	31 ...	958 ...	2,400
2. South Eastern ...	36,777 ...	68,894 ...	53 ...	125 ...	203
3. South Midland ...	25,036 ...	48,289 ...	52 ...	104 ...	102
4. Eastern.....	21,395 ...	39,312 ...	54 ...	29 ...	88
5. South Western ...	32,801 ...	58,157 ...	56 ...	67 ...	54
6. West Midland ...	49,698 ...	96,945 ...	51 ...	12 ...	40
7. North Midland ...	28,296 ...	48,381 ...	58 ...	6 ...	25
8. North Western ...	64,403 ...	126,170 ...	51 ...	540 ...	1,224
9. York.....	42,138 ...	87,080 ...	48 ...	353 ...	69
10. Northern	27,496 ...	52,527 ...	52 ...	151 ...	463
11. Welsh	29,253 ...	47,770 ...	61 ...	235 ...	235

A study of these figures cannot fail to shew the incorrectness of the theory of the antivaccinators, that as the vaccination decreases so does the small-pox.

INFIRMARY OR HOSPITAL?

A HOSPITAL is a place for shelter or entertainment, for the exercise of "hospitality"; an infirmary is a place for the reception of the sick; and the non-observance of the distinction between the two words sometimes causes confusion—as, for instance, the Seamen's Hospital, or more properly Infirmary, is now called "The Seamen's Hospital (late *Dreadnought*)", and is located in the old *Infirmary* of the Royal Hospital, Greenwich, making confusion worse confounded, which would be avoided by calling it "The *Dreadnought* Infirmary", and the name would be better understood. Again, the Infirmary at Drumcondra is called the Whitworth Medical and Surgical Hospital: "The Whitworth Infirmary" would be much more significant and accurate, and not so cumbrous. The Infirmary at Stoke-upon-Trent is called the North Staffordshire *Infirmary*; while that at Wolverhampton is called the South Staffordshire *Hospital*, though it is an infirmary, and not a hospital. Many other instances might be enumerated, but want of space prevents our doing so. The use of the word hospital instead of infirmary, in London, is traceable to St. Bartholomew's and St. Thomas's, which were founded as priories, afterwards became hospitals, and have now become infirmaries, though still called hospitals. They might with equal propriety still be called priories. All the other large infirmaries in London are comparatively modern; and the founders, finding the word hospital in use at St. Bartholomew's and St. Thomas's, have incorrectly and unthinkingly adopted it; but in other parts of the kingdom, especially in Scotland, kindred institutions are rightly termed infirmaries—such as Edinburgh Royal Infirmary, with 565 beds; Glasgow Royal Infirmary, 547 beds; Aberdeen Royal Infirmary, 300 beds. But now with reference to our old friend St. Thomas's: it has often changed its character, as well as its locality; it has triumphed over the vicissitudes caused by railways and litigation;

and we venture to suggest that the opening ceremonial next month will be a fitting opportunity to change its name to that of the more euphonious, the more correct, the more simple, though more noble one, of "The Victoria Infirmary". It would be a graceful, and we think acceptable, recognition of the great interest which the highest lady in the land has always evinced in its welfare; and it would be a striking and enduring monument to her goodness, standing as it does on one of the most imposing sites in London, opposite the Houses of Parliament, and where it cannot fail to command the attention of every visitor to the metropolis.

EXTRA-METROPOLITAN HOSPITAL RECORDS.

OUR hospital notes have of late been increasingly rich in the records of practice of the great extra-metropolitan hospitals of Great Britain and Ireland. This is a feature which we desire to cultivate; and for its continuance and growth through a regular supply of notes of interesting occurrences, we must trust to the intelligent activity of the staff of the hospitals, especially the resident medical officers. The case, recorded in the present number, of retention of urine treated by the pneumatic aspirator at the General Infirmary of Leeds is, we believe, the first in which the method has been tried in this country. We are indebted for the record of the case to Mr. McGill, the resident medical officer of the Infirmary.

PROFESSOR HAUGHTON'S LECTURES.

THE Rev. Professor Haughton's first lecture on the Principle of Least Action in Nature, applied to the muscular structures, will be read with great interest by our associates. In reproducing the *ipsissima verba* of the lecturer and giving them a permanent place in scientific literature, an enduring service will be rendered to science. The verbatim stenographic report which we publish has been corrected by the lecturer; but, inasmuch as Dr. Haughton is no less eminent as an orator than as an investigator of remarkable skill and ingenuity and unrivalled range of knowledge and resource, we counsel those of our associates who are able to attend the lectures not to deny themselves the great intellectual pleasure of hearing with their own ears discourses which charm by their alternations of wit, pathos, eloquence, and humour, no less than they convince and instruct by their erudite and searching demonstrations. The next two lectures will be delivered at the Royal Institution, Albemarle Street, at 3 o'clock, on Tuesdays May 30th and June 6th.

SELECT COMMITTEE ON PROTECTION OF INFANT LIFE.

THE Select Committee of the House of Commons appointed to consider the subject of the protection of infant life, met on Monday to receive evidence. Mr. Walpole presided. Mr. Ernest Hart was examined, and said that he first commenced an investigation of what was called baby-farming in 1866, under the auspices of the Harveian Medical Society. The result of the inquiry was, that the practice was found to be carried on to a great extent in large towns and manufacturing districts. In 1868, he undertook a systematic inquiry into the practice of baby-farming; and the results were published in the BRITISH MEDICAL JOURNAL. A reprint of these, and of other communications on the subject in the *Pall-Mall Gazette*, was put in as part of the evidence. In answer to questions, he stated that an advertisement was inserted in a newspaper in 1868, asking for a person to adopt a child, and 330 answers were received. It was then found, that in about one-third of the whole number of cases, the persons desired to adopt children from good motives, and in two-thirds for decidedly bad reasons. There was no doubt that many women carried on the system with the deliberate knowledge that the children would die quickly, and the intention that they should die. Consequently, children less than a year old had little or no chance of life. In many instances, they belonged to parents of a superior class; and in one case, an infant was proved to be the son of a baronet. Drugging the children was also in general use. Dr. Wiltshire was also examined, and corroborated the evidence of Mr. Hart.

THE DREADNOUGHT CONVALESCENT HOSPITAL.

THE arrangements under which the patients are sent from the small-pox hospitals at Stockwell, Homerton, and Hampstead, to the *Dreadnought* Hospital Ship, off Deptford creek, continue to work well. The ship now contains about two hundred patients, and the duration of their stay on board varies from nine to twenty days. The upper deck is used as a day and dining-room. The main, lower, and orlop decks are used as sleeping quarters, and here the beds are ranged round the sides of the vessel only, leaving all clear amidships, and a clean sweep fore and aft for the purposes of ventilation. There are no bulkheads on these decks for cabins of any kind in the after-part of the ship, and only bath-rooms and a small sick-bay near the bows. There is ample space in the spar-deck and forecastle for air and exercise; and, as nearly all the patients on board are able to get up and walk about, no one is allowed in the sleeping quarters during the day time, so that the ports are kept open from 8 A.M. to sunset. The steward's pantry, etc., are at the fore part of the upper deck, the kitchen range is under the forecastle, and the doctors' quarters are under the poop. No visitors are allowed on board. The patients wear clothing provided for them by the hospital authorities, and their own garments are sent with them from Stockwell, Homerton, or Hampstead, after having been thoroughly disinfected. No bronchitis or other illness has supervened upon removal, and no death has occurred. As the ventilation is satisfactory in all essential respects, the Committee have decided that the inmates may be increased to two hundred and fifty without danger to health.

A PROVINCIAL PHYSICIAN.

WE receive from many professional correspondents the account of the consummation of a testimonial to Dr. Evans of Birmingham. This testimonial included two pieces of plate of the value of £211, thus inscribed: "To George Fabian Evans, M.D., F.R.C.S., for thirty-four years Physician to the General Hospital, Birmingham, and 'beloved physician' and generous friend of many households, this salver is presented, in order that there may remain in the possession of his family a proof of the high esteem in which he is held by men and women of all classes of society in the borough of Birmingham and the neighbouring counties, who, to the number of four hundred and twenty, in order to provide a suitable testimony to his many virtues, contributed a sum of money, the greater portion of which he has devoted, with that noble generosity that forms so large a feature in his character, to the founding of a medical library, keeping this small portion only for himself and heirs, in memory of the affection of his friends. May 1, 1871." It included also a portrait of Dr. Evans, presented to the governors of the Birmingham General Hospital; and a cheque for £733. Dr. Evans has signified his purpose of applying the cheque to the formation of a medical library of reference. Two hundred medical men were among the subscribers. Very warmly appreciative addresses were delivered by the Hon. Rev. G. M. Yorke, Dr. Fleming, Dr. Heslop, Mr. Bindley, Mr. Newnham, and Dr. Bell Fletcher; and Dr. Evans gracefully expressed his deep sense of the confidence and kindness extended to him by his medical brethren. Perhaps, however, the most expressive tribute is that found in a letter from one of our correspondents, himself eminently qualified to appreciate a kind and degree of distinction which he closely emulates. He writes in warm but felicitous terms.

"The facts speak for themselves; and no one for fifty or sixty miles round Birmingham needs to be told that Dr. Evans has been for nearly forty years one of the very greatest illustrations of provincial medicine. But, able, honourable, distinguished, and successful as he has been, he is but little known in London, excepting to those eminent persons, like Dr. Burrows or Mr. Bowman, who have been either his fellow-students, like the former, or his own pupils, like the latter. I must except that large portion of the aristocracy and church dignitaries who have been his patients when in this quarter. He has, in fact, written nothing, to our great misfortune; and the pen and the sword seem to be the only means of getting general reputation now-a-days. I say all this, because Dr. Evans is precisely one of those men likely to be overlooked if literary performances are to be the only test by which a physician is to be judged. If profound knowledge, a brilliant education,

the ripest experience, perfect tact, unequalled success, are to form the basis of our judgment of a man, Dr. Evans must be allowed an undisputed pre-eminence."

SANITARY REFORM.

AT a meeting of the Metropolitan Counties Branch on Wednesday evening, Dr. A. P. Stewart read a paper on the Report of the Royal Sanitary Commission. He explained the circumstances under which he had been led to observe the confused state of sanitary legislation, and the proceedings taken by the joint committee of the British Medical and Social Science Associations; and commented on some points in the Report. *Inter alia*, he expressed disapproval of the proposal to appoint the Poor-law medical officers as officers of health, subject only to a central inspection; and protested against the implied opinion of the Commissioners, that the duties of the medical officer of health were such as could be discharged by young members of the profession while endeavouring to make a practice for themselves. After the paper a discussion followed, in which Mr. Michael, Mr. G. W. Hastings, Dr. Joseph Rogers, and Mr. French, took part. Mr. Michael and Mr. Hastings both insisted on the difficulties of defining the sanitary districts by parochial or municipal boundaries, and advocated the principle that the districts should be conterminous with the counties.

IRELAND.

THE annual meeting of the Irish Medical Association is to be held at the Royal College of Surgeons of Ireland, on Monday, June 5th. Dr. Darby, the retiring President, will take the chair.

WE deeply regret to have to announce the death of Dr. Charles Armstrong of Cork, the tried and earnest Secretary of the Cork Medical Protective Association. We have also to record with pain the decease of Dr. Denis Phelan, widely known and deeply esteemed by his brethren, and by the public also, for his character and services. Prominent amongst these were his exertions in forwarding the Medical Charities Acts and the establishment of the fever hospitals in Ireland.

MEDICAL ETIQUETTE.

AN inquest has been held at Dublin this week, in a case for which the jury returned as part of their verdict that the cause of death was exhaustion, the result of disease of the liver; and in our opinion there was no necessity for an inquest, although the coroner, having been put in motion, was bound to act as he did. Part of the evidence given was that of Mr. W. L. Erson, who said he "treated the deceased independently, and only sought other advice when he required it"; he "could find no organic disease in her." Cross-examined by Sergeant Armstrong, he is reported, in the account before us, to have stated—"I am a physician of the College of New York, but I never was in that city. I have my diploma. I am registered only as an accoucheur here. I did not in the latter capacity attend Mrs. M'Geough. I have made no claim on Mr. M'Geough since his wife's death. I never sent Mr. Beatty to Mr. M'Geough to say that I had a document in my possession, and that it would be better to settle quietly with me. I never sent Mr. Beatty to demand £700 or any other sum. I compound medicines. I did not study in New York at all. I studied in Dublin. What is your claim on Mr. M'Geough for attendances that you cannot recover by law?—Whatever he likes to give me; I expect £100. I have met Dr. Banks and Dr. Sawyer, as well as the medical men whom I have mentioned, in consultation about her health." It is an advantage of having registered degrees and belonging to the recognised colleges of one's native place, that such connexion affords opportunities of fuller explanations on professional subjects than are otherwise possible, to a gentleman cross-examined in a court of justice. It is the rule in the profession generally not to meet in consultation any but registered practitioners holding acknowledged diplomas. Under what circumstances is this rule accepted or departed from in Dublin? On this subject, the eminent president of the King and Queen's College of Physicians in Ireland might perhaps give some useful information.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Queen's Hotel, Birmingham, on Tuesday, the 6th day of June, 1871, at 3 o'clock *precisely*.

A meeting of the Subcommittee of Branch Secretaries—consisting of Mr. Bartleet, Dr. Bryan, Mr. Reginald Harrison, Dr. Henry, Mr. Hodgson, Mr. Nicholson, and the General Secretary—will be held on the same day, at the same place, at 10 o'clock A.M.

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary*.
13, Newhall Street, Birmingham, May 16th, 1871.

EAST YORK AND NORTH LINCOLN BRANCH.

THE annual meeting of the above Branch will be held at the Hull General Infirmary, on Wednesday, May 31st, 1871, at 1 o'clock; J. A. LOCKING, Esq., President, in the Chair.

Papers and cases are promised by Dr. K. King, Dr. G. F. Elliott, J. Dix, Esq., R. M. Craven, Esq., Dr. Lunn, and the President.

A dinner will be held at the Victoria Hotel, at 4 o'clock punctually. Charge 5s., exclusive of wine.

Members of the profession are invited to attend both the meeting and the dinner.

Gentlemen intending to dine, are requested to inform me on or before the 27th instant.

ROBERT H. B. NICHOLSON, *Honorary Secretary*.
21, Albion Street, Hull, May 22nd, 1871.

MIDLAND BRANCH.

THE annual general meeting of the above Branch will be held in the Board Room of the Infirmary, Derby, on Thursday, June 8th, at 2 P.M.; WILLIAM OGLE, M.D., President-elect, in the Chair.

The members and their friends will dine at the Midland Hotel, Derby, at 5 P.M. Dinner tickets, 5s. Gentlemen intending to be present, will oblige by communicating as early as possible with

A. H. DOLMAN, *Honorary Secretary*.
Derby, May 24th, 1871.

NORTHERN BRANCH.

THE annual meeting of the above Branch will be held at Tynemouth, on Thursday, June 15th; J. B. BRAMWELL, M.D., President, in the Chair.

Gentlemen intending to read papers or describe pathological specimens, are requested to communicate with the Secretary without delay.

G. H. PHILIPSON, M.D., *Honorary Secretary*.
Newcastle-upon-Tyne, May 20th, 1871.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE annual general meeting of the above Branch will be held at the Great Western Hotel, Birmingham, on Friday, June 16th, at 3 P.M.; when an address will be delivered by the President, Mr. OLIVER PEMBERTON.

Members have the privilege of introducing their friends, being qualified members of the medical profession.

The members and their friends will dine together afterwards, at five o'clock punctually.

Gentlemen intending to be present at the dinner, will be good enough to communicate as early as possible with the Honorary Secretary.

Dinner tickets, inclusive of waiters and dessert, 7s. 6d.

Members whose subscriptions are not yet paid, are earnestly requested to pay them at or before the annual meeting.

T. H. BARTLEET, *Honorary Secretary*.
8, Old Square, Birmingham, May 1871.

LANCASHIRE AND CHESHIRE BRANCH.

THE annual meeting of the above Branch will be held at the Medical Institution, Liverpool, on Wednesday, June 28th, at 12 o'clock. *President*, Dr. SPENCER, Preston; *President-elect*, Dr. DESMOND, Liverpool.

The dinner will take place at 4.30 P.M.

Members intending to read papers, are requested to communicate with the Honorary Secretary without delay.

REGINALD HARRISON, *Honorary Secretary*.
51, Rodney Street, Liverpool, May 24th, 1871.

SOUTH MIDLAND BRANCH.

THE annual general meeting of the above Branch will be held at the General Infirmary, Northampton, on Tuesday, June 27th, at 1 P.M.: Dr. WM. CLARK, President, in the Chair.

Gentlemen intending to read papers (not to exceed fifteen minutes in reading), are requested to send the titles forthwith to Dr. Bryan, Honorary Secretary.

Members whose subscriptions are not yet paid, are earnestly requested to pay them at or before the annual meeting.

J. M. BRYAN, M.D., *Honorary Secretary*.
Northampton, May, 1871.

EAST ANGLIAN AND CAMBRIDGE AND HUNTINGDON BRANCHES.

THE annual meeting of the above Branches will be held at the Norfolk and Norwich Hospital, Norwich, on Friday, June 30th, at 2.30 P.M.; P. EADE, M.D., President.

Gentlemen wishing to read papers, are requested to send the titles to one of the Honorary Secretaries; and those members who intend to be present at the dinner will be good enough to communicate the same as early as possible.

Dinner tickets, 12s. 6d. each.

J. B. PITT, M.D., Norwich.

B. CHEVALLIER, M.D., Ipswich.

J. B. BRADBURY, M.D., Cambridge. } *Honorary Secretaries*.

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, 1872.

AT a special meeting of the Birmingham and Midland Counties Branch of the British Medical Association, held at the Midland Institute, on May 18th, 1871—Dr. THOMAS UNDERHILL, President of the Branch, in the Chair—it was proposed by the PRESIDENT, seconded by Mr. ALFRED BAKER, and supported by Mr. CLAYTON, and carried: "That the British Medical Association be invited to hold its annual meeting in Birmingham in the year 1872."

It was proposed by Mr. BINDLEY, seconded by Mr. OLIVER PEMBERTON, and carried: "That the President (Dr. Underhill), the Honorary Secretary (Mr. Bartleet), Dr. Fleming, Mr. Clayton, and Mr. Manley, form a deputation to convey this invitation to the Committee of Council at their next meeting."

It was proposed by the PRESIDENT, seconded by Dr. FLEMING, and supported by Mr. FURNEAUX JORDAN and Mr. VINCENT JACKSON, and carried by acclamation: "That, in case the British Medical Association holds its annual meeting in Birmingham in the year 1872, Mr. Alfred Baker be suggested to the Council as President of the Association for that year."

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL AND CLINICAL SECTION.

THE seventh ordinary meeting of the Session was held on April 28th; Present: ALFRED BAKER, Esq., in the chair, and thirty-eight members and visitors.

Mr. J. VOSE SOLOMON showed a boy, aged 10, and two men, aged 30 and 45 respectively.—The boy had suffered from a severe wound of the upper third of the Cornea and the Lens. When all irritation had subsided, the pupil was contracted to a line in diameter and closely adherent to an opaque capsule. Under chloroform, the capsule was separated from a part of its attachments to the iris, by a needle passed through the upper and outer part of the cornea. It floated deeply back towards the vitreous body, upon which the operator transfixed the membrane, and with his left hand punctured the cornea near its outer and lower circle with a narrow iridectomy knife, introduced the cannula-forceps, and withdrew the capsule; a clear round pupil and good vision being the result.—The second patient was a boatman, aged 30, who, on admission to the Eye Hospital, presented a disorganised and a bosselated condition of the Iris in each eye; the pupil being much contracted and adherent to a lymph-cataract. The iris in the left eye appeared a little more free at its nasal side, and with it the man could make out Professor Longmore's one-eighth of an inch test-dots. Without the aid of chloroform, a narrow pupil was made on the nasal side on the horizontal meridian, the result being the ability to count one-sixteenth inch dots.—In the third patient,

a gardener aged 45, the whole of the Cornea, except the outer third, was, on admission into the hospital, infiltrated with puro-lymph; and pus occupied the lower fourth of the anterior chamber. In order to reduce tension and ciliary congestion, and to permit the discharge of the purulent secretion, a radiating puncture was made through the ciliary region. Little hope of saving the infiltrated portion of the membrane was entertained. The result, however, was good; the membrane of Descemet retained its integrity, and, by an extension of the pupil outwards, the man was enabled to read Snellen's 12 with a 12-inch convex glass. No inflammatory irritation followed in any one of the cases.

Mr. SOLOMON exhibited an eyed Silver Spatula, with which he proposed to limit the breadth of an Iridectomy where the corneal wound was not small.

Mr. JOLLY brought forward a woman, aged 44, whom Mr. Gamgee had trephined for a Punctured Fracture of the Vault of the Skull, caused by a falling brick. A fragment of bone, about half an inch in breadth, and two and a half inches in length, was driven in and depressed, so as to place the outer table on a level with the inner table of the surrounding bone. The membranes of the brain were uninjured. The patient made a slow recovery. She suffered at times severely from pain in the head, but ultimately quite recovered without any deterioration of brain-function.

Mr. JOLLY also showed a diagram and the bone illustrating a case of Disease of the right Elbow-Joint, taken from a boy aged 6, who was admitted under his care into the General Hospital. The disease had existed for eighteen months. The elbow was much enlarged, and had quite lost its proper form. A sinus existed over the external condyle, from which thin fetid matter issued copiously, and through which a probe could be passed into the cavity of the joint. As the disease had resisted all local remedies, and was becoming progressively aggravated, Mr. Jolly exposed the articulation by a single vertical incision along the posterior aspect nearer to the inner than to the outer side of the arm. The articulating surfaces of all the bones were found divested of cartilage and carious: the synovial membrane was greatly thickened and gelatinous. No vessels required ligature. The edges of the wound were brought together by silver suture, and some dry lint placed over them; and, the limb being semi-bent, a figure-of-8 roller was applied. This gave support far more effectually than any rigid apparatus. The boy suffered little or no constitutional disturbance; and there was every prospect of a favourable recovery.

Mr. SAMPSON GAMGEE exhibited an Aneurism of the left Common Carotid Artery, for which that vessel had been tied; and an Ovarian Tumour removed eight days previously.—In the former case the wound was healing by the first intention; and there were no bad symptoms until the sixth day after the operation, when the man suddenly complained of severe abdominal pain. Symptoms of collapse supervened, and death occurred twenty-four hours afterwards; the necropsy showed everything in the most satisfactory state about the aneurism and the seat of ligature, but the intestines were matted with recent lymph, and the pelvis was filled with semi-purulent and feculent matter. A small mass of scirrhus was imbedded in the areolar tissue behind the rectum, and in the gut over it was a perforating ulcer.—In the ovarian case Mr. Gamgee had to overcome the most formidable adhesions to the liver, the omentum, the spine, the iliac fossæ, and, to the extent of three inches, to the body of the uterus. No bad symptoms followed, and the case was so far one of rapid recovery.

Mr. VINCENT JACKSON (Wolverhampton) exhibited a submucous Uterine Fibroid successfully removed by the operation of enucleation and avulsion. The chief symptom was excessive monthly menorrhagia.

Dr. BALTHAZAR FOSTER showed a specimen of double Aortic Valve-Disease, in which the valves were perforated in spots, and studded at their margins with large vegetations. The sphygmographic pulse-traces taken while the case was under observation were also brought forward, and their value as an aid in determining the existence of obstructive disease in such cases, when auscultation failed, was explained.

Dr. FOSTER also showed a specimen of Calcareous Polypus of the Heart, larger than a walnut, and firmly attached to the apex of the cavity of the left ventricle, which had been taken from a patient in whom no signs of heart-disease had existed during life, and to whom chloroform had been safely administered for a capital operation a few days before death.

Dr. JAMES THOMPSON (Leamington) showed a portion of Bone which had been removed from the Ischio-rectal Fossa of a gentleman aged 70. Symptoms pointing to pelvic irritation had existed for fourteen years; during that time no advice was sought, as the patient attributed his sufferings to piles, for the relief of which he took sulphur. He lately came under Dr. Thompson's care, suffering from abdominal derangement; and on examination a large erysipelatous surface was

found round the anus, with a small opening leading to the cavity which contained the piece of bone. Dr. Thompson was anxious to elicit from the members present their opinions as to the animal to which the specimen might have belonged. No conclusion was arrived at.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of the members of the above district was held on Wednesday, May 10th, 1871, at the Maiden's Head Hotel, Uckfield. In the absence of Mr. H. Holman (East Hothly) through illness, Mr. W. WALLIS (Hartfield) took the Chair. There were present twelve members.

Next Meeting.—It was proposed by Mr. MARSACK (Tunbridge Wells), and seconded by Dr. WARDELL (Tunbridge Wells)—“That the meeting in September be held at Hastings, and that Mr. F. Ticehurst be requested to take the chair on that occasion.”

Papers.—1. Mr. W. WALLIS (Hartfield) read a case of Poisoning by Yew-Berries.

2. Mr. WALLIS read a case of Death from the Bite of a Viper.

3. Dr. WARDELL exhibited a pathological specimen, the like of which he could not find recorded. It consisted of what appeared to be a Croupous Plastic Exudation of the entire Mucous Membrane of the Urinary Bladder in a woman aged 28.

4. Mr. GRAVELY (Newick) exhibited a specimen of Stone and the Bladder of a man, which he had just removed in a *post mortem* examination, the patient having undergone lithotomy some time previously.

Dinner.—Twelve members afterwards dined at the Maiden's Head Hotel.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE fortieth (an annual) meeting was held at the Rose Hotel, Canterbury, on Thursday, May 11th; GEORGE RIGDEN, Esq., in the Chair.

Secretary.—Dr. Charles Parsons of Dover was re-elected to the office for the ensuing year.

The next Meeting was appointed to be held at Ramsgate, in September.

Papers.—Mr. J. REID read a paper on the Parallelism of Modified Small-pox and Cow-pox, and the practical application of the fact. Fifteen years before, Mr. Reid had pointed out to the Society the inefficiency of cicatrices as a test of the quality and protectiveness of primary vaccination, and advocated the necessity of revaccination as the only means of obtaining reliable proof of its abiding influence. Subsequently he had sketched out the evidences afforded under revaccination of the degree of influence of a first vaccination that remained, and deduced the practice to be pursued in future in each individual instance. He now entered more in detail upon the subject. Alluding to the admitted alliance or identity of small-pox and cow-pox, he adduced this as a reason, *à priori*, for expecting a similarity in the modifications of the two diseases, so far as they were strictly comparable. He described the various degrees of modification which he had witnessed in secondary or post-vaccinal small-pox and in secondary cow-pox; showed how they were comparable with each other; and argued that they were evidences of the degree of protection that had been lost, and that, by how much they exhausted the renewed susceptibility to the diseases, by so much they restored the lost protection. Thus, by fairly balancing the indications arrived at, a means was obtained for advising as regards the requirement of future vaccination.

Dr. KERSEY read a paper on a recent outbreak of Diphtheria. No apparent cause could be traced. The outbreak was not limited to any one locality; some cases occurring near the lesser Stour; others on ground nearly a hundred feet above, and a distance of a mile from, the river. There were forty cases of diphtheria, and four deaths, all of which occurred in the same family. There were several cases with a semi-opaque diphtheritic membrane; these readily recovered. In one case, the diphtheritic membrane passed from the posterior nares to the larynx, causing great dyspnoea and cough. Pieces of membrane were constantly coughed up; and deglutition was very difficult, from the passage of the food into the larynx. The urine contained much albumen, and, when heated or treated with nitric acid, formed a dense curdled mass. The patient had double vision, with presbyopia. After she had been better for some time, paralysis came on in both upper and lower extremities, and in the muscles of the neck and back, from which she gradually recovered. Galvanism was used, apparently with benefit, in this case and in two other cases of albuminuria after scarlet fever.

The members afterwards dined together at the Rose Hotel.

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, MAY 10TH, 1871.

EDWARD C. SEATON, M.D., President, in the Chair.

On Cholera in Ships at Sea. By INSPECTOR-GENERAL LAWSON.—The author was of opinion that the concurrence of three classes of causes was necessary for the development of every epidemic. These were: (1) general causes, experienced over large portions of the earth's surface at the same time, and usually alluded to as epidemic causes or influences; (2) causes connected with locality; (3) causes connected specially with persons. If the two latter classes were fully developed, intense disease might be excited under the influence of the general causes; while if they were less developed, notwithstanding the operation of the general causes, sporadic cases or small groups only might make their appearance, or the inhabitants of certain localities might escape altogether, while those of others in their vicinity, and often mixed up with them, might display a large amount of sickness. Mr. Lawson had investigated the nature of one of the general causes in connection with fever and cholera, and, from its wave-like character and progressive motion, had denominated it a pandemic wave. The waves followed each other every second year, and proceeded from south to north according to a fixed law, so that their position could be indicated on the map for any given date. [See map in Sanitary Report for the Army for 1866, p. 363, and *Epidemiological Transactions*, vol. iii, p. 216.] Their influence was experienced in England the sixth year after it had been manifested at the Cape of Good Hope; and, as regarded cholera, in a year with an odd number there would always be the crests of three waves between England and the Cape, and in a year with an even number the crests of two only. Ships proceeding from England to the Cape must pass through these waves, and, when circumstances were favourable for the manifestation of cholera in them, the disease should be intensified where their geographical position corresponded with that of the wave at the time. The tracks of four ships proceeding from England or Ireland, and one from Gibraltar, to the south, were given, while cholera existed on board; and these, with the attacks of the disease each day, were shown on charts, together with the estimated position of the waves at the time for each. Three of the ships left this country when cholera was prevailing on shore; the *Apollo* in 1849, and the *Windsor Castle* and *Lord Warden* in 1866. Each had one or more cases soon after sailing; the first had two distinct outbreaks during the voyage, the other two had one each, but the *Windsor Castle* had, in addition, a single fatal case after she had got far to the south-east of the Cape. The fourth vessel, the *Jumna*, started from England in 1867, when there was no cholera in this country, neither was there any at St. Vincent, one of the Cape de Verde Islands, where she touched on her voyage; but four days after leaving the island one case of malignant cholera occurred, and numerous others of choleraic diarrhoea, and these continued to crop up for ten days. In all these instances the ships' positions when these outbreaks commenced agreed very well with those assigned to the waves moving in the opposite direction. The ship from Gibraltar, the *Renown*, left after the epidemic of 1865 had declared itself there, and a case occurred on board the day before she sailed; an outbreak commenced when she was south of the Cape de Verdes, under the same wave in which she was at Gibraltar, but it ceased after some days, and another commenced in $4\frac{1}{2}$ deg. S. soon after she reached the position of the following wave. Similar results were obtained from examining the progress of cholera in ships in the Indian Ocean. The *Gertrude* sailed from Calcutta in 1859, and sixteen days after leaving the land had a case of cholera, and in the next four days four others. Another outbreak commenced four days afterwards, when upwards of seven hundred miles from her last position, and two other cases occurred when she was south of Mauritius, where cholera was frequent at the time. The steam-ship *Oriental* left Bombay for Mauritius on June 29th, 1859, and put into Galle in Ceylon on July 5th; seven deaths from cholera had occurred up to this time, and four more up to the 11th, after which it ceased. The *Queen of the North* left Bombay on January 22nd, 1864, and had some cases of diarrhoea, bilious cholera, and four of malignant cholera up to February 5th. On the 8th, when in $5^{\circ} 38' S.$, an outbreak commenced which, up to the 15th, produced thirty-seven cases of malignant cholera, of which twenty-four proved fatal. No case presented itself after the 15th. The *Salamanca* left Kurrachee on May 7th, 1865. She had one case of cholera on the 9th, one on the 10th, and a very decided outbreak of choleraic diarrhoea on the 11th, which continued for some days, with three cases of cholera on the 11th, one on the 12th, and two on the 14th, after which it ceased. On the 11th, the vessel was in 14°

$14' N.$ Another ship, the *Durham*, left Calcutta in 1866; ten days after leaving the land, when in $10^{\circ} N.$, a case of cholera occurred. Nine days afterwards, when she had just crossed the line, an outbreak commenced, which in a few days produced nine cases, of which six died. In all these instances, the positions of the ships corresponded satisfactorily with those of the waves advancing in the opposite direction at the time when the various outbreaks manifested themselves. The wave experienced by the *Queen of the North* in $5^{\circ} 38' S.$ in 1864, was the same as that met by the *Salamanca* in $14^{\circ} N.$ in 1865, and by the *Renown* in $4\frac{1}{2}$ deg. S. in the Atlantic in the same year; this, again, was encountered by the *Windsor Castle* and *Lord Warden* north of the Cape de Verdes in 1866, and in 1867 the same wave overspread the North of Africa and South of Europe, causing a severe epidemic; and the increase of common cholera in this country in 1868 was connected with its onward progress.—After a few remarks from Dr. MILROY, the discussion of Mr. Lawson's paper was adjourned to the next meeting of the Society, on June 14th.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 3RD, 1871.

J. BRAXTON HICKS, M.D., F.R.S., President, in the Chair.

MR. PEDLER exhibited the pelvis of a woman, the subject of Mollities Ossium. The pelvis was much distorted, and its diameters greatly contracted. A chemical analysis of the bone proved it to consist of—water, 24.74 per cent.; fatty and oily matters, 26.49 per cent.; true bone, 48.77 per cent. The inorganic matter formed only 23.71 per cent. of the true bone.

Dr. PROTHEROE SMITH exhibited the Uterus and its Appendages removed from a patient upon whom he had performed Ovariectomy. The pedicle and the uterus were free from inflammation, yet the patient died from acute peritonitis. The small intestines were found inflated, inflamed, and covered with recent lymph. Dr. Smith had found, on taking a statistical view of cases which had terminated unfavourably, that a large majority had succumbed in consequence of inflammation resulting in the formation of lymph, or the effusion of serum or blood into the peritoneal cavity. He had also remarked, in a large number of cases operated upon, that there was vomiting of fluid in excess of that taken, becoming grumous, if protracted; or that hæmoptysis, hæmatemesis and bloody motions, hæmaturia and albuminuria, not infrequently took place. Such conditions were, he thought, due, in long standing cases especially, to an effort to relieve the vascular system, which in the progress of the ovarian malady had contracted the habit of depletion by effusion into the cyst. On these grounds, he called attention to previous blood-letting, as a means of removing cysto-peritonitis when diagnosed before the operation, and as a prophylactic measure to prevent its occurrence.—Mr. SQUIRE said that precedent peritonitis need not prevent good recovery after the removal of an ovarian tumour. In a case lately under his care, the patient had vomited blood on more than one occasion, and had also passed blood by the bowel before the operation. Dependence upon the effect of blood-letting before an operation was at least hazardous.—Dr. WILTSHIRE thought that the bleeding might, in certain selected cases, prove beneficial.

Dr. BARNES exhibited Mr. De Berdt Hovell's Uterine Truss for preventing and arresting *Post Partum* Hæmorrhage. It had a spring, pressing, with a force of about seven pounds, a pad down upon the uterus.

Dr. BARNES communicated for Mr. Porter of Lindfield the particulars of a case in which the Fœtus died at the third month of gestation, and was expelled piecemeal, but the placenta was retained to about the full term, and was then expelled undecomposed.

The PRESIDENT communicated for Mr. H. Gibbons of Wolverhampton a case of Cæsarean Section. The patient, aged 22, was a dwarf, three feet ten inches high. An incision six inches long was made into the uterus, and the fœtus extracted. The placenta was found attached to the posterior wall, and was peeled off without much bleeding. The uterus contracted rapidly under the eye, and its wound was thereby closed. Uncontrollable vomiting commenced in about an hour, and continued with scarcely any intermission till the patient sank, forty hours after the operation. There was no extravasation into the peritoneum, nor any peritonitis. The pelvis was exhibited to the Society. The child lived nine days.

A case was then read, reported by Dr. ROUTH, in which a child born in the twenty-second week of gestation lived eighteen days.

Dr. WILTSHIRE read a paper on Tetanus after Abortion. After narrating two cases, the author referred to the great mental depression under which the patients laboured, owing to trouble and anguish of mind, and suggested that, although peripheral physical changes were justly regarded as most important factors to the production of tetanus, functional

disturbances of the cerebro-spinal centre should be studied in conjunction with them. Illustrations were given of the disease termed tetany, and reference was made to the recent pathological researches of Clifford Allbutt, Lockhart Clarke, and Dickinson. The question of treatment was then briefly discussed.—Dr. PLAYFAIR thought that the rarity of tetanus after labour and abortion was chiefly a climatic question, and he doubted its being proportionately more rare than after surgical operations. In countries in which tetanus was common, it was far from being a rare event after labour, and he had seen many cases at Calcutta.

Dr. MEADOWS read a paper on Uterine Hæmatocele; and on the motion of Dr. BARNES, seconded by Dr. PHILLIPS, the discussion thereon was postponed to the next meeting.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 12TH, 1871.

W. W. GULL, M.D., D.C.L., President, in the Chair.

MR. WARRINGTON HAWARD exhibited a patient on whom Reverdin's operation of Skin-Grafting was first performed by Mr. Pollock at St. George's Hospital. The sore, caused by a severe burn, originally measured about fourteen inches by five inches, and was situated on the right buttock and outer aspect of the right thigh. The patient had been long under treatment, but had made a good recovery, and the extension of the leg was almost perfect.—Mr. GEORGE LAWSON said that sores, such as ulcers of the leg, healed in this way, broke out again on the patient beginning to walk about; the portions of skin grafted on did not give way.—Mr. COOPER FORSTER said that his first case failed because the woman would persistently pick off the pieces as they grew. As to getting skin, that might be done from amputated limbs immediately after removal. This answered (as he had tested) perfectly well.—Mr. CALLENDER was glad to see the result of Mr. Pollock's case. He had seldom seen a more unpromising case where the experiment was tried. He had noticed in several cases that spots of grafting in the centre of a large sore did no good; whenever it was done near the margin, they speedily extended, and formed bridges of skin to the textures at the side.—Mr. T. SMITH said that it had been found in Bristol that the skin of an amputated part did quite well. This had been severely tried at St. Bartholomew's in one case. The skin removed was carried about for two hours before application, but was kept warmly wrapt up in lint.—The PRESIDENT thought it might be of some importance in such circumstances to ascertain fairly the nature of the individual's constitution who had supplied the skin, as disease might be propagated by it.—Assurance was given that in all cases due care had been taken.

Mr. COOPER FORSTER read notes of a case of Naso-pharyngeal Polypus. The patient, aged 19, had the left nostril filled by a large growth, which appeared firm, fleshy, and fibrous, and covered with mucous membrane. The right nostril was not much interfered with; there was no swelling of the face or fulness of the palate, nor any projection in the throat. Chloroform was given, and a wire snare put round the growth, which broke off, and bled profusely. Mr. Forster then passed his finger up the nostril, and found an enormous growth, which could not be circumscribed, but large portions of which he tore away with forceps. Four days after the operation, the patient suddenly became unconscious; the right half of his face was numb, and, though he rallied, he was never able to speak except to say "too-too." The temperature rose to 102 deg. F. He had three convulsive fits on the seventh day, and became totally unconscious, and died twelve days after the operation. The *post mortem* examination showed general arachnitis, and sloughing of the brain about Broca's convolution. That portion of the growth which had not been removed filled the space between the greater and lesser wings of the sphenoid, the orbital plate of the frontal, and the cribriform plate of the ethmoid. It had extended from the nasal fossa by way of the sphenoidal fissure into the back of the orbit, but without damaging the optic nerve. The cribriform plate of the ethmoid was broken, and at the back part there was a small opening about a quarter of an inch in diameter, and a fracture extending forwards from the opening. The growth consisted of small fusiform cells and stellate connective tissue. Mr. Forster, in alluding to the advisability of bringing forward for discussion unsuccessful as well as successful cases, remarked that though it might possibly have been advisable not to proceed further in the operation when the true character of the growth was apparent, yet, under any circumstances, the life of the patient could not possibly have been much prolonged. He submitted to the Society four reasons as to the brain-complication. 1. As to the idea offered that the forceps might have broken the bone of the skull in the act of operating, Mr. Forster said the instrument used was a pair of strong bone-forceps, the length of which by measurement precluded any possibility of this accident. 2. The growth might have been ad-

herent to the portion of bone broken and at the seat of the small opening, and this was the most probable explanation. 3. The growth might have already destroyed the bone and reached the membranes, so that the brain was exposed in the course of the operation. 4. The mischief might by contiguity have extended from the periosteum to the membranes. Mr. Forster also called attention to the inutility of treatment generally when the brain became involved.—Dr. ANSTIE asked the President if he had any belief in the utility of mercury in vaccine inflammation of a non-syphilitic character.—The PRESIDENT considered the case of great interest medically. The tumour was akin to a malignant structure. Had the operator known this, and that it was attached to the dura mater, he probably would not have operated.—Mr. GEORGE LAWSON had seen several cases where brain-matter was removed along with polypi, owing to thinning of the cranial bones.—Mr. THOMAS SMITH asked if polypi were ever removed in any other fashion at Guy's Hospital. At St. Bartholomew's it was taught that cutting was better than pulling, and that the cavity of the nose should be laid open to enable the knife to be used.—Mr. SPENCER WATSON thought that the rhinoscope would have been of use. From the history, he thought there must have been some protrusion of the eyeball.—Mr. CALLENDER asked what was the condition of the brain itself.—Mr. ARNOTT had seen mistakes made in the diagnosis of nasal polypi. In one case there was a large projecting tumour, which was very soft. It was not, however, mucous, but spindle-celled sarcoma, with myeloid cells. In another somewhat similar case the structure was medullary. From the presence of certain elements he predicted its return. It did so, and death followed the next operation.—Dr. SILVER pointed out that the conclusion drawn by Mr. Cooper Forster was quite contrary to that which the facts seemed to imply. He thought the case favoured the notion of the localisation of speech in Broca's convolution. Now it was stated that the individual had been aphasic for a time, but that the day before his death his speech had been quite intelligible. After death, the left posterior frontal convolution was found perfectly softened. Were that, then, the site of speech, how would one account for his speech being intelligible the day before his death, when the softening must have existed?—Mr. COOPER FORSTER was not responsible for every portion of the report, part of which had been communicated to him by Dr. Corner. The whole case turned on the diagnosis. The polypus seemed an ordinary fibrous one; he would have left it alone had he known it was semi-malignant. He did not like the knife in these cases. The rhinoscope had not been used.

Dr. BUZZARD read notes of a Case of Cervico-brachial Neuralgia treated with the Constant Current. The patient, a woman aged 65, had suffered for three months from paroxysms of agonising pain in the neck and right arm, which attacked her several times every hour, night and day, deprived her of rest, and rendered her arm useless. The neuralgia had followed seizures which sufficiently indicated its central origin, and this, coupled with the age of the patient, and the degeneration of her tissues, rendered its cure very improbable. Sedative applications had been useless. A constant current derived from ten cells (increased afterwards to fifteen cells) of a Weiss's battery was applied from time to time between the cervical vertebræ and the hand, and produced remarkable relief, insomuch that at one time the patient thought herself cured. Under the influence of this treatment, she was enabled to sew, and to cut her food with the right hand, which had previously been so helpless that she was forced to lift it with the other. The application had been intermitted on several occasions, and other remedies, as blisters, sedatives, and tonics had been employed; but these failed in preventing the paroxysms of pain. Dr. Buzzard said that, out of sixteen applications of the constant current, ten had been followed by very great and well-marked relief, two by moderate, and four by very slight relief. Dr. Buzzard brought the case forward not as one of cure of neuralgia, but as a good example of the effects of the constant current in relieving pain.

Dr. ANSTIE offered, as a pendant to Dr. Buzzard's case, two examples of the Treatment of Neuralgia with a Constant Current, one successful, the other unsuccessful. The first case was that of a married woman, aged 48, born of a neurotic family, and herself the subject of hemicrania in youth, in whom the change of life had passed over quietly some years before. She was attacked with severe and well-defined right cervico-brachial neuralgia. Treatment with every kind of internal remedy and internal application was tried for two months, with only the most trifling and temporary amelioration. She then tried country air, without medicine, for one month, but returned to town worse than ever. The constant current from ten (afterwards increased to fifteen) cells of Weiss's battery was applied daily for twenty-four days; the positive pole being applied alternately on the various foci of pain, the negative pole by the right side of the three lowest cervical vertebræ. The pain was at once diminished, and ceased altogether at the end of thirteen

days ; and a secondary anæsthesia of the skin, with secondary paralysis of the deltoid and trapezius, were removed at the end of the twenty-four days' treatment. The cure was found persistent six weeks later. The other case was that of a hard-worked and ill-fed unmarried needle-woman, aged 30, who suffered from double cervico-occipital neuralgia. A variety of internal remedies and blistering having failed to produce any benefit, the daily use of the constant current was tried for sixteen days. No good was effected by the treatment. Dr. Anstie remarked that the effect of the constant current in neuralgia was very remarkable, but that there were, as yet, some unexplained anomalies in its action. In the large majority of cases it acted as a palliative most strikingly. In a not inconsiderable number of cases it appeared to cure the disease absolutely. But in a few examples, like the second case, without any discoverable reason it failed to produce any good results. As a general rule it was far less effective in the neuralgia of old persons, with degenerated tissues, than in younger subjects. But occasionally even a young subject, like his second patient, quite failed to derive benefit from it.—Dr. DUFFIN confirmed the statements as to the use of electricity in neuralgia, even when that turned out ultimately to depend on organic causes. He had recently seen the termination of a case of this kind—viz., neuralgia of the trigeminus. Everything had been tried, and at first the constant current had seemed to do harm, but afterwards to do good, and the neuralgia gradually faded. The patient was well for three months after this, but fell back again, and was again relieved, but next time it failed. She now showed signs of a central lesion.—Dr. ALTHAUS said that some cases of neuralgia were central, some peripheral. If they were central, it was best to apply one pole to the sympathetic and one to the head. In other forms of neuralgia, peripheral applications were best. The direction of the current was important, as the good seemed to be done by the positive pole alone. The negative sometimes did harm, and should, therefore, be removed as far as possible from the site of the pain—viz., to the opposite side. Epileptiform tic was thus benefited. If this failed, galvano-puncture might be tried. There was no use in trying any plan too long.—The PRESIDENT said that certain forms of neuralgia were strictly functional, depending on no organic change. Such forms were cured by metallic tractors as readily as by electricity. He had tried to investigate the subject for thirty years, and could come to no definite conclusion. He would ask the Society to have some more exact discussion on some future occasion. He did not think that the present one was of any clinical value.—Dr. GREENHOW proposed a committee on the subject, and Mr. KESTEVEN seconded the motion ; which was not, however, acceded to.—Dr. ANSTIE had thought unbelief in the powers of electricity was fading away. He had been convinced by the most striking proofs, and referred as a final test to Niemeyer's celebrated case.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, APRIL 15TH, 1871.

R. DRUITT, M.R.C.P., President, in the Chair.

THE SECRETARY announced that a committee of the whole Association had met to consider the Metropolis Local Management and the Building Bills. The conclusions arrived at were being printed, so that they might be submitted to the members for approval. A conversation took place as to the practicability of carrying out the Act giving power to close houses unfit for human habitation. It appeared that in some parishes the Act had been put in force ; and that its execution was feasible when the medical officer was supported by the Surveyor.

Dr. ILIFF called attention to the arbitrary power given to Water Companies. He thought that in no case ought power be given them to cut off the supply of an article so essential in every respect as water. After some conversation, it was agreed that the President should represent the matter to Mr. Lefevre.

The PRESIDENT read a paper on Physical Education in Elementary Schools. The Elementary Education Act (1870) had called into existence School Boards endowed with ample powers for the establishment and regulation of elementary schools. The Boards would have to consider, not only what was abstractedly best in a system of education, but what was attainable with due regard to the wants of the poor children, and the necessity of not pressing too hard on the ratepayers. For the school-premises space was required—spacious schoolrooms, spacious offices, and spacious yards or playgrounds ; and, unfortunately, in a crowded town space was the element most difficult to secure. With regard to *schoolrooms*, certain rules as to minimum of space, combined with sanitary condition, were laid down by the Privy Council. The room must be ten feet high, but cubic space was not to compensate for deficient floor-space, and eight square feet superficial were de-

manded. This amount of floor-space, Dr. Druiitt thought much too small. A boy's seat and desk required four square feet ; and space in a class, at least three square feet per boy. The *offices* of a school should stand on an adjoining plot of ground, and by no means be thrust into the corner of the parallelogram occupied by the main schoolroom. The staircase should be spacious and well-ventilated. The cloak-room should be large enough to allow the children's coats and hats to be arranged so that they might be found without confusion, and might be freely exposed to the air. In too confined premises the clothes were put in an indiscriminate heap into a basket, or into a closet. The *latrines* were among the most important and troublesome parts of a school-building. The earth-closet system was, no doubt, the best where it could be had ; with water in any shape the results were very disgusting without constant superintendence, and any apparatus requiring nicety would soon be spoiled or destroyed. In most schools there was some provision of water, soap, and towels for washing hands and face ; but this department might be extended infinitely with the greatest benefit. There should be also a copious supply of water for drinking, cool and filtered. Children were always prone to drink for the relief of thirst, and the water should be pure. In a school of which Dr. Druiitt was one of the managers, for some years the children used to drink the water from a cistern over the room containing the closets and urinals ; which water, when analysed by Mr. Wanklyn, was found to contain a very large amount of ammonia and organic impurity, whilst that from neighbouring cisterns not exposed to similar volatile impurities had the ordinary composition of Grand Junction water. A *yard or space for play* must be considered an essential part of a perfect school. Although, by varying the lessons and interposing a little marching or singing in the schoolroom, some relief was given, still it would be infinitely better to allow the children two or three minutes' run in a playground. But at many of the schools in the west of London ground was so scarce that the idea was an impossibility and an absurdity. A Medical Officer of Health would find few more useful ways of spending an hour than by visiting the national and elementary schools regularly and often. Not only would he find out the existence of epidemic disease, which was always first learned through the absence of children from school, but he would be able to inspect the arms of all new scholars, and certify to their vaccination—a fact which ought to be duly entered on the school register. The vaccination examination would disclose the state of personal cleanliness. Whoever examined poor children's vaccination would be surprised at the miserably dirty state of skin ; the *high-water mark* on the neck and arms, where the pretences of washing ceased ; and the innumerable varieties of flea-bites of different dates. The poorly nourished state of the skin, sometimes moist and sodden, sometimes rough as a file, and with all the sebaceous glands plugged, would also attract attention. The clothing, too, was wonderful for its quantity, its antiquity, and its rottenness. The examination would also reveal skin-disease, usually psoriasis—rarely scabies. Sometimes he had been told that they were infested with bugs and fleas in ragged schools ; but anyone would be astonished to learn what masters and mistresses said of the prevalence of lice, even amongst children outwardly clean and stylishly dressed. Dr. Druiitt urged as important the setting apart large space and sufficient apparatus for a lavatory. Children should be taught how to wash ; they should be taught to love washing, and they should be made to do it. At present masters and mistresses did not dare to insist on the requisite cleanliness of person and neatness of dress, from the fear of offending the parents. With compulsory attendance, there should be no difficulty on this score. If the children were taught how to wash their entire bodies effectually and pleasantly, Dr. Druiitt believed that no branch of education would be so pleasant and popular, or attended with better results to body and mind. Children should be taught the disgrace of a dirty skin and the pleasure of a clean one. They should also be taught the care of the hair, how exquisite its colour and polish when quite clean, and how unnecessary the greases and essences used to disguise dirt. Attached to the school lavatory should be a small laundry, where the girls should be taught to wash, iron, and mend their own and their brothers' clothes. Dr. Druiitt hoped that it would be in the power of the school-managers, under the new School Board, to discountenance the tawdry finery at present so common. Children should learn that civilised beings should show honesty and sobriety in their apparel. Health, cleanliness, and physical development would be aided, were it the custom for Englishwomen to wear clogs in the street, and naked feet with sandals indoors. The gymnastic was the prime element in physical exercise ; to stand well, to walk well, to march in time, to have the free play of the shoulder-joints, to be able to throw, to run, climb, and swim, should be partly taught as regular exercises under a drill-master, partly left to natural development in spontaneous games. Tyler's musical gymnastics were a most excellent method of training.—Dr. STALLARD thought that

there was one omission in the paper; namely, the question of food. In many cases the children were incapable of giving proper attention for want of proper nourishment.—Dr. DRUITT concurred in this remark, but had considered it as forming a separate subject.—Dr. STALLARD, speaking of the proposal of the School Board to pay the school fees in certain cases, thought that the experiment would have a demoralising tendency. The Guardians had already this power, but it was carried out in very few cases.—Mr. LITTLE thought that the only way of avoiding endless disputes was to have the schools entirely free. He agreed with Dr. Druitt that the School Board had great opportunities for instilling lessons of cleanliness, order, and other good qualities, which might serve the children their whole lifetime.—Dr. ROSS was in favour of lower schools giving elementary education gratis, and higher schools giving a more advanced education and requiring payment.—Dr. KIDD, in answer to the President, said there was the greatest difficulty in instilling proper habits into those who came forward as recruits. If Dr. Druitt's suggestions were carried out, both health and morals must, without doubt, be improved.

Some conversation then took place in reference to Small-Pox. This epidemic was said to be still raging fiercely, while people were growing more indifferent to it. The general opinion was in favour of revaccination, but not to the extent of making it compulsory.

The meeting then separated, after a vote of thanks to the President for his able paper.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, APRIL 15TH, 1871.

JAMES STANNUS HUGHES, M.D., President, in the Chair.

DR. HAYDEN presented some morbid specimens from the body of a lad aged 18. His illness was attributed to fatigue, and was ushered in by violent pain shooting across the front of the chest. At his admission to Hospital on March 17th, he had the physical signs of pneumonia of the right lung. A double cardiac impulse was detected, and the second sound of the heart was doubled. Next day, a soft blowing murmur was heard at the apex; this sign disappeared, but at times returned. On April 1st, pneumonia set in at the base of the left lung. Two days after this, the heart was found pushed to the right; the side was dull, except just under the clavicle, where—and over a corresponding area posteriorly—muffled tympany existed. On the 7th, death from syncope took place. On examination, ten ounces of serum were found in the pericardium. The upper portion of the left lung was pervious to air, but was bound down by strong adhesions. The lower lobe was carnified. Tubercular depositions had taken place in the great pulmonary fissure, and on the pleural aspects of the anterior and middle mediastina. Resolution was far advanced in the right lung. A large thrombus filled the right cavities of the heart. The left ventricle was hypertrophied.

Mr. J. MORGAN showed an example of Gummatous Deposit in the Liver of a gentleman who, nineteen years previously to his death, contracted syphilis in China. Two years ago, paraplegia set in, depending apparently on a syphilitic affection of the spinal meninges. The patient made a complete recovery from this. Subsequently, laryngeal symptoms occurred, the most prominent being occasional dyspnoea and stridor. There was no aphonia, and, on laryngoscopic examination, no affection of the rima glottidis could be detected. After death, the true and false vocal cords were found healthy. Patches of ulceration existed on the internal surface of the trachea, especially in its lower portion. An enlarged gland here compressed the tube, and involved the recurrent laryngeal nerve. The liver presented several nodules on its surface, and throughout its substance; these were yellow, somewhat elastic, and varied in size from a small pea to a hazel-nut.

Mr. SWANZY showed a Tumour of the Brain, the presence of which had been diagnosed during life by aid of the ophthalmoscope, from the appearance of the optic disc, now known as "congestion papilla." The tumour (a round-celled sarcoma) was globular, and about an inch and a quarter in diameter. It occupied the corpora quadrigemina of the left side. The lateral and third ventricles were enormously distended with limpid fluid. The dropsy here was apparently caused by the occlusion of the aqueduct of Sylvius; the ventricular fluid being thus prevented from escaping through the fourth ventricle and cerebro-spinal opening. Mr. Hilton, in his book on *Rest* (p. 34), has shown that such occlusion is not an uncommon cause of internal hydrocephalus.

Dr. R. W. SMITH related a case of Death by Inanition, through Stricture of the Œsophagus. A man, aged 63, was admitted to Hospital on March 11th, in a state of extreme emaciation, but complaining of no symptoms. In July 1870, he was suddenly seized with a difficulty in swallowing, which returned at irregular intervals during the

following six months. He wasted, but was free from any urinary or intestinal disturbances. He had gradually become unable to swallow solid food, and resorted first to slops, and finally to fluid nourishment. The food never returned by the mouth. An obstruction to the passage of a gum-elastic catheter was met with in the higher part of the Œsophagus. The patient refused to have nutrient enemata administered, and sank from inanition. The Œsophagus was found *dilated* in all its upper portions. Just above the cardiac extremity of the Œsophagus, was a close stricture, an inch in length, barely admitting a small blow-pipe. An appearance of ulceration was noticed round the gastric orifice of the tube. The stomach was much contracted, as were also the intestines. The walls of these viscera were attenuated and almost translucent; those of the Œsophagus, on the contrary, were thickened. Digestion had evidently gone on to some extent in the hypertrophied and dilated portion of the last-named canal. The tumour composing the stricture was probably a true scirrhus; a chain of hardened glands was found in its immediate neighbourhood.

CORRESPONDENCE.

BABY-FARMING AND WET-NURSING.

SIR,—Mr. Charley has, as your readers are aware, obtained a Committee of the House of Commons to inquire into the subject of "baby-farming." I would suggest that his inquiry, to be complete, must embrace also the larger matter of wet-nursing. "Baby-farming" means, in the general idea of the public, something which is connected with the destruction of infant life; and for this very reason has been thus prominently made a subject of investigation. But if the sacrifice of these innocents is worthy such high inquiry, it must be clear, at least to every member of the medical profession, that the matter will be little more than skimmed unless it take in the much wider field of baby-destruction, which comes under the head of ordinary wet-nursing. The mortality occasioned in baby-farming proper is really trivial compared with that which results from wet-nursing. And if this is the case, and if the object of the legislature, in granting the Committee of Inquiry is to find a means of arresting the mortality resulting from the putting out of infants to nurse, it is clear that the legislature, to do its work to any purpose, must also act a paternal part towards those infant-victims who are sacrificed at the shrine of ordinary or orthodox wet-nursing.

I call wet-nursing orthodox, in the sense that it is extensively patronised, as advertisements run, by royalty and the nobility and gentry, and is resorted to from one end of the country to the other; and also because our own profession, as a body, do not hesitate to sanction largely the general practice, thereby throwing over it the prestige of the Hippocratic mantle. The BRITISH MEDICAL JOURNAL has more than once brought this proceeding, so far as our medical brethren are concerned in it, under question; and I was happy to find, when it did so, that there was, at all events, a serious minority of the profession, men of influence, who strongly condemned the ordinary practice. I would seize the present occasion of again bringing the matter under consideration.

Can anyone doubt that wet-nursing, as sanctioned by the faculty, is the cause of a very large destruction of infant life? Is it not rather certain that the greater number of those children (of the wet-nurses) who are "put out" to feed at 2s. 6d. per week figure in due course in the bills of mortality under the heads of marasmus, mesenteric disease, etc.? and that numbers of them, at all events, have their constitutions permanently injured whilst thus "put out"? Of course, it would not be either polite or euphonious to call the deaths thus produced infanticide, but still it would be hard, if there be any trust in logic, to discriminate between destruction under this slow process and the destruction dealt by a dose of laudanum, or by a cord tied round the infantile neck. We surely, as medical men, are especially interested in this matter. None know so well as we the destructive results of wet-nursing to the sacrificed infant; and certainly no body of men in the country could as effectually apply the remedy to the evil—arresting it at its very source by prohibiting, or at all events refusing to sanction, unless absolutely required, the common custom of vicarious nursing. In how many cases, indeed, in which it is resorted to, is it absolutely necessary? In how many cases is it simply a shirking of her duty by the mother? How often do medical men unnecessarily sanction or even recommend it? And then, I would ask, do those who thus needlessly resort to the practice, or who needlessly recommend it, fully appreciate the responsibility in which they involve themselves? I should very much like to hear what those who would venture to defend the thing could say in its defence. But, in truth, I am not aware that

anyone has ever maintained by argument before the profession the proceeding which he advocates in private practice. We must remember that the two persons mainly concerned in this case as principals are the mother and the medical man. The mother, we may assume, reck little, and probably knows little of what happens to the infant which her own has supplanted. She may be ignorant of the fact, that to feed her own another is probably going through the process of slow starvation into disease or death. But the medical man who recommends or sanctions the practice has no such excuse. Probably there is not a dispensary or outdoor hospital physician who has not all times on his hands the sick or dying infants who have been put out to nurse; and every medical man who advises the use of a wet-nurse knows well what chance of life the "put out" child has. What is wanted here is, that the profession should acknowledge and assert that a heavy moral responsibility attaches to every member of it who sanctions the practice; that no one can rightly give his sanction unless in those cases where it is absolutely needed.

In the meantime I would ask: Why should not the Legislature protect these victims of wet-nursing equally with those of baby-farmers? Why should a mother be allowed to sacrifice her child—to subject it to a slow process of disease or death—in order to make a handsome profit out of her nursing powers? And then, again, what right has a wealthy mother to purchase these services—to have her own child fed to the destruction of the infant which her own supplants? Surely the Legislature has a right to step in here, just as it has in the case of baby-farming, and to supervise a system which produces these fatal results. Why should a baby-farm where infants are massed together be subjected to Government inspection, merely because they are massed together; and a precisely similar destruction of infant life carried out by units, though on an infinitely larger scale all over the country, be passed by unnoticed? Why should not the mother hiring herself and those who hire her be made responsible for the proper nourishing of the supplanted infant? If the facts of the case were once clearly brought before the Committee—the destruction of infant life resulting from wet-nursing—they could not avoid the conclusion that every such case should be subjected to registration and inspection, and brought under certain fitting regulations.

The demoralisation affecting all parties concerned in this business of wet-nursing is not to be overlooked. We need not say that the proceeding is unnatural. The hired nurse is fed on the fat of the land—fed up for nursing. She is placed in an unnatural, and, to her, morally unhealthy atmosphere. She is, as a rule, not allowed to see either her husband or her child. Indeed we have heard that healthy *unmarried* women are often at a premium with our British matrons, for the reason that their milk is not likely to be disturbed by the ties of family emotion. Then, again, the mother finds in her very position a kind of sanction to the destruction, which she often well knows to be quietly going on, of her own "put out" child. There is a sort of cover of respectability thrown over the proceeding, and under this she doubtless reconciles to her conscience the injury done to her own child. Moreover, it cannot be doubted that the kind of instruction thus imparted to wet-nurses tends to the fostering in their minds sentiments which lead to the production of direct infanticide; and assuredly also to the support of baby-farms. Whichever way the matter be turned, it will still be found full of evil. A sermon might be preached on it; and I recommend the subject to the consideration of eloquent divines. They will find in it abundant practical, and sensational and worthy matter for the edification of their audience.

Summed up briefly, the case stands thus. Mr. Charley's Committee have practically to deal with the destruction of infant life in baby-farms. A much larger destruction of infant life results from the wet-nursing system than from baby-farming. Moreover, the system supplies baby-farms and promotes infanticide. The Committee, therefore, are bound to comprise in their inquiry the subject of wet-nursing as a cause of infant life destruction.

Parliament would have a perfect right, as well as the duty, to bring under special regulations the case of those sacrificed infants, who are "farmed out," in order that their mothers may enjoy the pleasure and profits of vicarious nursing; and that the mothers who employ them may relieve themselves of their maternal duties.—I am, etc.,

London, May 1871.

F.R.C.P.

DEATHS FROM ANÆSTHETICS.

SIR,—You have done good service in again directing attention to this most important subject; but I fear no arguments that you can adduce will ever overcome the unwillingness which men naturally feel in publishing the untoward cases that occur under their hands during the administration of anæsthetics. That it is most desirable that accurate records of all the circumstances attending deaths from chloroform or other anæ-

thetics should be kept, none can deny; but it is equally desirable that all cases where dangerous symptoms have presented themselves should, together with the means employed for resuscitation, be likewise recorded; and it would be undoubtedly of great benefit if carefully drawn up tables of the administration of anæsthetics at all large public institutions were collected and preserved. To accomplish these ends, I conceive that it would be necessary to have in existence a standing committee of gentlemen, the best informed upon, and the most largely interested in, the question of anæsthetics. By such a body all deaths occurring from anæsthetics could be carefully and privately inquired into, with far more chance of getting a full and truthful report than could be obtained from short published statements; and a comparison of such might lead to some more fixed data respecting cases in which certain anæsthetics might be deemed dangerous. Such a committee could, after a time, present accurate statistics respecting the percentage of deaths in regard to any anæsthetics—a point about which we are at present very much in the dark. A committee containing amongst its members many of the most experienced administrators of anæsthetics is still in existence; and although the object of its formation was to investigate the merits of an agent only—viz., nitrous oxide—I would venture to suggest that, as soon as it has completed its labours, which will not be long, it should be requested to modify and enlarge itself for undertaking a work that would prove of the greatest benefit to the profession at large, especially if it could with authority point out in some general terms the cases which are the best suited for one or another anæsthetic. Upon this subject you have ventured to lay down a rule which no such committee, I am convinced, would attempt to enforce; viz., that in all cases of extraction of teeth nitrous oxide should be employed. There are many cases which come under the dentists' hands in which this agent, from the rapidity with which its effects pass off, is almost and even wholly useless. Such cases are, I admit, quite exceptional; but they do occur, and then for the patient's good a greater risk must be run in employing a less safe agent than the nitrous oxide. Indeed, for operations upon the mouth this agent appears one the least suitable; for the moment the face-piece is withdrawn, recovery rapidly commences, and there are little or no means of keeping up the anæsthesia. That it might be, and indeed ought to be, much more largely employed in general surgery, as you insist, I fully agree, especially since its compression into a small bulk. The liquid form, advocated first, as you correctly state, by Mr. Ernest Hart, and now carried out practically and safely by Messrs. Barth and by Messrs. Coxeter, has done away with its greatest drawback. In your article of the 29th ult., you state that seven gallons of the gas are required to produce complete anæsthesia. Permit me to inform your readers that, upon a plan which I have introduced, one and a half or two gallons are ample for the purpose, and produce the same effects. When the anæsthesia is required to be kept up, the saving is much more considerable in proportion. To illustrate this, I may mention that a patient was recently, for a surgical operation, kept in a state of unconsciousness for thirty minutes with the expenditure of but sixteen gallons of the gas.

I am, etc.,

ALFRED COLEMAN, F.R.C.S.

Old Burlington Street, May 22nd, 1871.

GRATUITOUS LABOUR AT HOSPITALS.

SIR,—The subject of hospital reform must not be allowed to drop. It surprised me to see so thin an attendance at the meeting recently presided over by Sir W. Fergusson. The letter of Dr. Meadows in your number of April 29th, must have pained every zealous advocate of the cause. Even that appeal to the public spirit of our profession has met with a mere nominal response.

In the address which I had the honour of giving on my assumption of the Presidency of the Metropolitan Counties Branch in 1864, I said that the efforts then made against gratuitous medical service "allowed certain plausible arguments to pass, answered only by a broad opposition which may be considered too sweeping to uproot a system that had its origin in the days of the Pilgrim Fathers, which was once a religion, then a superstition, and now is an excrescence. I would not remove too roughly the excrescences which mark the stem of old Time; but I am bound to say that, in my opinion, the day has come when this particular excrescence requires removal—gradual, if you please, but decisive. The evils of it are fatal. It fosters, under the name of charity, that which is not charity; it often makes the wealthy ostentatious, and the poor improvident and exacting; and it sows among the profession a seed as poisonous as it is fruitful." That is not, and never will be, a good system, which teaches the newly fledged professional man the policy of establishing himself in a position above his fellows, by founding a reputation on a practice without reward; which practice,

if it were not gratuitous, must and would be distributed remuneratively among the profession altogether.

It would be easy to fill columns of your JOURNAL by illustrations of the abominable abuse of our so-called medical charities. Some years ago, I attended a grand dinner at one of our anniversaries. Around the chairman were the city and county magnates, a lord-lieutenant, a bishop, and the like. Among the toasts given was, "The Medical Charities of the City and their Officers". A physician attached to one of these charities returned thanks, and said, *inter alia*, "I am proud to belong to a profession which does much for nothing". It is presumable, he meant for no money return. This boast somewhat annoyed me, as in a morning speech in favour of the Poor-law medical staff, I had argued that "the labourer was worthy of his hire"—worthy of a fair day's pay for a fair day's good work done. I lived to see this man dependent upon the charity of his former patients and of his city brethren—a man of fine wit, cultivated taste, and genial heart. A signal instance this of the bombastic yet destructive influence of gratuitous medical service. How widely these evils have come into operation, let our Medical Benevolent Fund answer; the Epsom College, too; the Society, also, of the Widows and Orphans of Medical Men.

May I venture to account for the small attendance at the meeting where Sir W. Fergusson presided, and for the feeble response to Dr. Meadows's letter, by the vast sense of culpability which many in the profession feel to belong to them? "They will not come to the light, for the light reproveth them, for their deeds are evil."

I am, etc.,

CHARLES F. J. LORD.

Hampstead, May 10th, 1871.

A CASE OF OPPRESSION.

SIR,—Three weeks ago I gave an account, without mentioning names, of the dismissal of Mr. A. D. Parsons from the Ventnor Cottage Hospital, characterising it as an act of injustice and oppression. I see no reason for modifying these expressions, unless for stronger ones; and I now ask permission to return to the case. I may recall very briefly the circumstances.

Some months after his appointment as house-surgeon, Mr. Parsons was required to sign a bond pledging himself, under a heavy penalty, not to practise in or near Ventnor for a term of years after leaving the hospital; the pretext assigned being, that it was necessary to protect the medical men in the neighbourhood against competition on the part of a new comer starting with the *prestige* of the hospital. He naturally protested against this restriction, which should have been imposed at first, or not at all; and, besides showing clearly the injustice and unprecedented nature of the demand, he was able to say that, having called on all or nearly all the medical men of Ventnor, they wished for no such protection, and considered the requirement unjust. It is, in fact, obvious that, no out-patients being seen at the hospital, and the in-patients coming from a distance, the house-surgeon could have no opportunity of making a *clientèle* through his work among the poor; and any honour and glory radiating from the institution might be expected to be effectually intercepted by the permanent staff. But here another consideration comes in. Dr. Hassall, the physician, was in the habit of leaving Ventnor pretty regularly one day in the week; and on this day the house-surgeon saw such of his patients as required attendance, or at least certain of them. This, then, was the opportunity of making a practice in Ventnor; and the inference is clear—the protection was required, not by the medical men generally, but by Dr. Hassall. A sort of documentary evidence to this effect, too, was furnished when Mr. Parsons, under the pressure brought to bear upon him, for a moment assented to sign the bond. On reading over the terrible document, he pointed out to Dr. Hassall that he would come under the penalty if he continued to attend to his practice; upon which a provision was added to obviate this.

It thus appears that, practically, the committee and governors of the hospital are to provide Dr. Hassall with a cheap and safe assistant in the house-surgeon; and I suppose that, abstractedly considered, they have a right to do this, in view of his eminent services. But how is it compatible with justice and fairness to the other medical men of Ventnor? This is a question which I should like to put to the committee, who have shown themselves so solicitous of the interests of the profession, if I could hope to gain their attention. Is it to be regarded as a small return for his philanthropic labours in founding the hospital? Surely it is a pity to rob them of their exalted and disinterested character, even were no other view of the matter possible; but it would be the merest affectation to pretend that other views may not be taken. It may be said that Dr. Hassall has secured a return for his work in the publicity it has given him, and in the annual eulogies of the Report; and that for the hospital also to furnish him with a cheap assistant is t

handicap (this is the Derby word) his competitors too heavily. However, this is not my business. Circumstances made it in some sort my duty to vindicate an old pupil of the hospital to which I have the honour to be attached. I have not been able to prevent the consummation of the injustice. I hope it may do good to have exposed it.

I am, etc., W. H. BROADBENT, M.D.

Seymour Street, Portman Square, May 1871.

THE ABUSE OF HOSPITALS.

SIR,—The injury sustained by the general practitioner of the metropolis, and probably, also, of most of our other large towns, by the abuse of the out-patient department of hospitals and dispensaries, has been, I fear, at present insufficiently understood, or there would have been no need for the earnest appeal for funds to meet the expenses of the Committee appointed last year to inquire into and report upon the subject. For myself, I can state that, though I have paid some attention to the kindred question of Poor-law medical relief, I had but an imperfect notion of the evils that were inflicted on the profession; indeed, it was not until I had been asked to second one of the resolutions at the late meeting in Berners Street, that I was induced to look into the statistics of the subject, and then, to my astonishment, discovered that so vast a number as upwards of a million of cases of disease were annually seen at these institutions. I state upwards of a million, because I have good reasons to believe that a correct return would show even a much larger amount than the figures I quoted, this being (exclusive of the two hundred thousand cases of disease attended by the district medical officers) above a quarter of a million more than the total of all the cases attended by the 786 dispensary physicians in Ireland, where it has been asserted there exist great abuses of medical relief. To suppose, for a moment, that all this huge amount is made up of really necessitous persons, is simply absurd; a careful investigation would probably eliminate three-fourths, certainly one-half; it will therefore be evident that a very large sum of money is abstracted from the pockets of the profession.

At the meeting to which I have referred, a resolution was adopted to memorialise the President of the Poor-law Board. Now, it appears to me that it would be far better to form an association with the avowed object of persistently agitating for the removal of these abuses. The action of such an association I would not limit solely to the metropolis; for, as I have before stated, in several of our large towns exactly the same thing, though in a lesser degree, is complained of. Could five district medical officers even nominally attend the sick-poor of the large parish of Birmingham, if their duties had not been supplemented to a considerable extent by the gratuitous assistance of the numerous so-called medical charities of that town? If such an association were formed, a subscription of two shillings, or, at the most, five shillings, would be amply sufficient to provide all necessary funds; this, my experience tells me, would be readily forthcoming if the facts of the case were brought fairly before the rank and file of the profession. I could give many reasons showing the necessity for such combined action, but this communication has already exceeded the limits I had intended.

I am, etc.,

JOSEPH ROGERS.

Dean Street, Soho, May 8th, 1871.

DECREASED MORTALITY OF CONVICT PRISONS.

SIR,—I must ask you to permit me to answer Dr. Nicolson's letter, published in the JOURNAL on the 22nd instant, wherein he questions some of my statements on the decreased mortality of the convict prisons. I shall not enter on a written controversy in defence of the facts given in my paper, which appeared in the BRITISH MEDICAL JOURNAL on the 8th instant. In that paper, and in other papers on the same subject which you have consented to publish, my chief object is to show what were and what are the sanitary conditions of the prisons. To accomplish this object, something more than mere death-rates are needed. Formerly, prisoners ill of mortal disease were frequently "pardoned on medical grounds". This is still done to a large extent in the county and borough gaols. The death-rates must of course be materially affected by the number of these pardons. Many prisoners also die of diseases which existed previously to conviction; and these deaths, therefore, are not consequent on, nor are they generally expedited by, imprisonment. These and various other circumstances must be fairly considered in order to ascertain whether the death-rates of these men are increased by the mode of carrying out the sentence—circumstances which cannot be given in one necessarily short paper.

I stated in the JOURNAL on the 8th April, that the number of prisoners who die every year in the convict prisons is considerably less than it was twenty years ago. This, I maintain, is strictly correct. I

have also given the mean annual death-rate at the foot of each of my tables. Dr. Nicolson's comparatively brief prison experience has evidently led him to erroneous conclusions on the health-statistics of the prisons. I will take the three quinquennial periods referred to in his letter, and on which he founds his arguments. What were the medical conditions of those periods? certainly not those only which are given by Dr. Nicolson. The "medical pardons" granted are not mentioned by him; though of necessity they must, as I have stated, materially affect the death-rate of each period.

During the first period (the last five years of the hulks), there were *one hundred and seventeen* "medical pardons"; during the second period, there were *sixty-two*; during the third period (1865-69), there were only *two*.

Medical pardons are now very rarely granted in the convict prisons. How far these pardons have affected the death-rates of the periods in immediate question, the following returns will show.

Five years, 1852-56, deaths and medical pardons per 1000

male convicts ...	...	...	...	...	22.42
„ 1857-61,	ditto	ditto	...	...	14.40
„ 1865-69,	ditto	ditto	...	...	15.17

These facts will, I think, prove that the rates which Dr. Nicolson has given for these periods do not show the real condition of the prisoners then under sentence; they also give a clue to the "more powerful cause, or combination of causes", referred to in the last two lines of his letter.

I will merely add, that I have not lost sight of the reduction of the dietary in 1864; but I avoid all reference in this letter to any effect on the health of the men which this change may have produced.

I am, etc., J. D. RENDLE, M.D.

Park Hill, Clapham Park, April 24th, 1871.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE Council beg to inform the members of the Association and the Poor-law medical service generally that Mr. Corrance, M.P. for East Suffolk, will, as soon as practicable after Whitsuntide, move "That the present system of medical Poor-law relief is inadequate to the wants of the poorer classes, unsatisfactory in its results, and requires amendment. For this end it is expedient that the provisions of the Medical Charities Act (Ireland) and a dispensary system be adopted, with such further provisions as may render it especially applicable to the English system of poor relief." Although a strong feeling exists on both sides of the house in favour of Poor-law reform, it is more than probable that any such alteration will be resolutely combated by the official staff of the Poor-law Board. It is, therefore, incumbent on the members of the Association to communicate with such members of the House of Commons as they may personally know, and urge them to attend and support Mr. Corrance's motion, upon which he is determined to go to a division if such a course should be necessary.

SANITARY REFORM.

SIR CHARLES ADDERLEY, Bart., M.P., Chairman of the Royal Sanitary Commission, has given notice of his intention to introduce a Bill to amend the Sanitary Act. The Royal Sanitary Commission has recommended that rural Poor-law medical officers should be health-officers of their respective districts, and that there should also be a registration of disease. The Council of the Poor-law Officers' Association feel the necessity of keeping a watchful eye on this measure of Sir Chas. Adderley, so that if any attempt be made to impose additional obligations without reasonable remuneration, it may be met with a vigorous and determined opposition.

THREATENED BY GUARDIANS.

THE St. Pancras guardians admit that their district medical officers are not sufficiently paid for their onerous duties; but they decline to increase their stipends, because Mr. Wickham Barnes, one of their number, has dared to call in question the policy of the recent vaccination arrangements. A powerful section of the Board have expressed their intention of withholding an increase of salary from the other district surgeons until Mr. Barnes is got rid of. St. Pancras has in the past earned an unenviable notoriety; and it would seem, by this unworthy treatment of her medical officers, that she was desirous of increasing such fame as she already possesses.

VACCINATION ARRANGEMENTS.

THE following resolution was passed at a meeting of the Council of the Poor-law Medical Officers' Association, on May 23rd:—"That a letter be written to Mr. Stansfeld, the President of the Poor-law Board, asking him to appoint a day to receive a deputation of Poor-law medical officers in order that they may lay before him their views on the recent consolidation of vaccination arrangements. The Council feel strongly the necessity of bringing the facts of the case before Mr. Stansfeld, inasmuch as a former deputation to Mr. Simon were promised an opportunity of giving evidence before the Parliamentary Committee on Vaccination, but which promise has not been kept."

VACANCIES.

KEIG, Aberdeenshire—Parochial Medical Officer.
NARBERTH UNION, Pembrokeshire—Medical Officer for District No. 3.
TULLYNESSLE and FORBES, Aberdeenshire—Parochial Medical Officer.
UNST, Shetland—Parochial Medical Officer.
WIRRAL UNION, Cheshire—Medical Officer for the Upton District.
WORKSOP UNION, Nottinghamshire—Medical Officer and Public Vaccinator for the Whitwell District.

OBITUARY.

JAMES GRAHAM HILDIGE, F.R.C.S., OF DUBLIN.

WE regret to announce the death of Mr. James Graham Hildige, after a very short illness. The melancholy event occurred on the morning of Sunday last, May 14th. Mr. Hildige had attained to considerable eminence in his profession as an oculist, and was the author of *Medical Sketches in Austria, Prussia, and Italy, with remarks on Roman Campaigna*.

JOHN FIRTH, ESQ., MACCLESFIELD.

MR. FIRTH, whose death was caused by an accident on the 6th instant, commenced professional life as an apprentice to Mr. Bullock of Congleton in Cheshire. He afterwards studied at University College, London, where he took several prizes. In 1836, he obtained the membership of the Royal College of Surgeons and the Licence of the Society of Apothecaries; and in 1838—just thirty-three years before his death—settled in Macclesfield. He was for many years medical officer of one of the districts of the Macclesfield Union, and was also one of the honorary surgeons of the Macclesfield Dispensary. He had also filled the office of Mayor of the town, and had held other public appointments.

The death of Mr. Firth was the result of a carriage accident. He was thrown, with his wife, one of his daughters, and another young lady, out of an open carriage with which the horse had run away. Both Mr. and Mrs. Firth sustained fracture of the skull with cerebral concussion, and died on the 6th instant, the day after the accident. The melancholy event has caused much regret in the neighbourhood, where Mr. Firth was generally much respected.

DE BURGH BIRCH, M.D.

DR. DE BURGH BIRCH was born at Portumna, County Galway, in 1799. He commenced his medical studies in Dublin, and in 1819 took his diploma at the Royal College of Surgeons of that city. He then went to Edinburgh and there graduated in 1821. About that period, a very serious fever having broken out in Galway, he was nominated with others to assist in suppressing it; and so successful was he in the performance of his duty that he received expressions of deep gratitude from the magistrates and clergymen, both Protestant and Roman Catholic, for his active endeavours in the discharge of this important duty. These services were so highly appreciated by the Marquis of Wellesley, then Lord Lieutenant of Ireland, that he immediately recommended Dr. Birch for an assistant-surgency in the Madras Army, which service he entered July 1824. He had hardly landed at Madras when, war with Burmah having been declared, he was appointed Assistant-surgeon to Her Majesty's Royal Regiment then proceeding on service to that country, and continued with it during the whole of the war. At its termination he received the warm thanks of its commanding officer, who further brought his meritorious conduct to the notice of his Excellency the Commander-in-Chief. He was afterwards appointed to the Artillery, and in 1834 accompanied the 36th Regiment, to which he then was attached, in the attack on Coorg. He was stationed with his regiment a short time at Macara, the capital of Coorg. In the same year he was nominated to the important post of Superintending Medi-

cal Officer on the Neilgherry Hills, and continued to hold that appointment until 1842, when he came to England on leave. In 1845, he returned to India, and retired from the service in 1849. He died on April 28th, 1871.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.

At the last meeting of the Council of the Royal College of Surgeons it was decided that the annual meeting of the Fellows for the election of members of the Council should be held on Thursday, July 6th, and that the usual advertisements should be published, and notices sent to all the Fellows.

At the same meeting, it was resolved to invite Sir Roundell Palmer, Q.C., to accept the office of Standing Counsel to the College. Mr. Charles Norris Wilde, of College Hill, was appointed Solicitor to the College.

The opinions of Sir John Karslake and Mr. Bevis were read, to the effect that the right of election of a Representative of the College to the General Medical Council was vested in the Council of the College.

Mr. Charles Hawkins gave notice of the following motion at the next meeting of the Council, viz.:—"That all legal opinions taken by the authority of the President or Council should be laid before the Council."

Licentiates in Midwifery.—The following members of the Royal College of Surgeons having undergone the necessary examinations, were admitted Licentiates in Midwifery at a meeting of the Board, on the 24th instant.

Giles, Peter Broome, Staunton-on-Wye: diploma of membership dated May 2, 1871

Lycett, John Allan, L.S.A., Scarborough: April 19, 1871

Pires, Joseph Octavins, L.R.C.P. Edin., Bombay: January 25, 1871

Stickland, Samuel, Hawkhurst, Kent: July 26, 1870

Two candidates having failed to acquit themselves to the satisfaction of the Board, were referred to their obstetrical studies for the usual period.

ROYAL COLLEGE OF PHYSICIANS, EDINBURGH.—The following gentlemen, having passed their final examination at the May sitting, were admitted L.R.C.P. Edinburgh.

Rouse, Edmund Willoughby, England

Strathy, Fred. Rolph Lee, Ontario, Canada

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the quarterly examinations, held in April last, the following gentlemen passed the first half of their examination for the Letters Testimonial.

William H. Abbott, John H. Andrews, Robert Baxter, Robert A. Bingham, John T. B. Bookey, Henry Borthistle, Edward Bowers, Henry W. B. Boyd, John N. Bredin, Thomas H. Brown, Arthur C. Clarke, George Cooke, Richard A. S. Daly, James Dawson, Robert N. Denning, Rowland J. Denny, Thomas De Renzy, Andrew F. Dobson, Wm. C. Dowing, Edward J. Dowling, Henry E. Evans, Thomas Fenton, Francis Flood, John B. Forster, Nicholas French, James A. Hanrahan, Henry Hayward, John A. Irvine, Andrew Irwine, Joseph H. Lockwood, Edmond Lucas, Patrick J. MacNamara, Charles W. Magrane, Wm. Mahood, Charles J. Mahon, Robert H. Miller, Andrew B. Morris, Edward J. Murtha, Herbert M. Nash, Michael O'Connor, Nicholas S. O'Farrell, Patrick G. O'Flaherty, James R. Panter, Robert F. Russell, Harvie Scott, Wm. A. Sharpe, James H. Sheehan, Robert Sterling, Edward C. Thompson, Charles P. Turner, Wm. J. Vance, Samuel Walsh, Hugh G. Webb, Samuel H. Webb, and Henry E. White.

The following gentlemen passed their second and third examinations, and were admitted Licentiates of the College.

Joseph Ahearn, Andrew H. Beakey, John T. B. Bookey, Henry Borkiette, Robt. Boxwell, Walter C. S. Burney, Henry Carpenter, James Coyne, Henry T. Cox, James Dawson, Andrew F. Dobson, James Donovan, William Donovan, Joseph Fitzgerald, William J. Fleetwood, Alexander Flood, David J. Freeman, Stewart Hamilton, Richard Johnston, Joseph H. Lockwood, Francis M. Loftie, George U. Macnamara, John H. Molohan, Andrew B. Morris, Richard G. O'Flaherty, Henry W. Patterson, Dominick Rice, Richard E. Ross, Robert W. Sterling, Thomas T. Somerville, Edward Thomas, Edward C. Thompson, Samuel Walsh, and Hugh G. Webb.

The following gentlemen passed their preliminary examination.

First Class.—Thomas Gaffney.

Second Class.—John Dillon, Michael Callanan, and John S. Hayes.

Third Class.—Robert F. Dedrickson, John D. Dickson, Mansergh Duke, John F. Dunne, Frederick G. L. Eagar, David E. Flinn, John J. Hamilton, Martin Hanly, George J. Hodgson, William J. Kenny, Thomas Knox, John Rolands, John J. Romaine, and Chatterton J. White.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 18th, 1871.

Beech, Lionel, Margate Infirmary

Clarke, F. Erick Howard, Devonport
Forshaw, Thurston, Heanor, Derbyshire
Jackson, Thomas William, Leyland, Lancashire
Moody, Henry, Erith, Kent
Powell, Lionel Lewis, Melton Mowbray
Younger, Edward George, Holly Mount, Blackheath Hill

The following gentlemen also on the same day passed their first professional examination.

Archer, Edmond Lewis, St. Bartholomew's Hospital
Price, Hugh P. Jones, Manchester School of Medicine

MEDICAL VACANCIES.

THE following vacancies are announced:—

BIRMINGHAM NEW HOSPITAL FOR WOMEN—Two Consulting Physicians; Two Consulting Surgeons; Four Acting Medical Officers.
CAPE COPPER MINES, Cape of Good Hope—Assistant Medical Officer.
CHARING CROSS HOSPITAL—Registrar.
CHORLTON-UPON-MEDLOCK DISPENSARY—House-Surgeon.
CORK GENERAL DISPENSARY—Physician.
CORK UNION—Medical Officer for the North Eastern Division of the Cork Dispensary District.
CORK UNION MEDICAL ASSOCIATION—Secretary.
COUNTY AND CITY OF CORK MEDICAL PROTECTION ASSOCIATION—Secretary.
CUMBERLAND INFIRMARY, Carlisle—House-Surgeon.
DENTAL HOSPITAL OF LONDON, Soho Square—Assistant Dental Surgeon.
DUNDEE ROYAL INFIRMARY—Resident Medical Officer.
EAST RIDING OF YORKSHIRE LUNATIC ASYLUM, Beverley—Medical Superintendent.
GLASGOW INSTITUTION FOR THE DEAF AND DUMB—Physician.
LEEDS PUBLIC DISPENSARY—Resident Medical Officer.
LEICESTER INFIRMARY AND FEVER HOUSE—House-Surgeon and Apothecary.
LONDON FEVER HOSPITAL—Assistant-Physician.
LONDON SCHOOL OF DENTAL SURGERY, Soho Square—Lecturer on Mechanical Dentistry.
MACCLESFIELD DISPENSARY—House-Surgeon.
MITCHELSTOWN UNION, co. Meath—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Mitchelstown Dispensary District.
OUGHTERARD UNION, co. Galway—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Cloonbur Dispensary District No. 2.
PAWNBOY UNION, Co. Cavan—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Newtownmore Dispensary District.
QUEEN'S HOSPITAL, Birmingham—Resident Physician and Medical Tutor.
ROYAL GENERAL DISPENSARY, Bartholomew Close—Resident Medical Officer.
ST. BARTHOLOMEW'S HOSPITAL—Lecturer on Mental Diseases; Assistant-Surgeon.
SALFORD and PENDLETON ROYAL HOSPITAL and DISPENSARY—House-Surgeon.
SALOP INFIRMARY, Shrewsbury—Resident House-Surgeon.
SAMARITAN FREE HOSPITAL for WOMEN and CHILDREN—Physician for Out-patients.
UNIVERSITY OF DURHAM, College of Physical Science, Newcastle-upon-Tyne—Professor of Chemistry.
VICTORIA HOSPITAL FOR SICK CHILDREN, Chelsea—House-Surgeon.
WEST RIDING OF YORKSHIRE LUNATIC ASYLUM—Assistant Medical Officer.
WORCESTERSHIRE—Analyst for.

[For Poor-law Vacancies see Poor-law Department.]

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*JOLLY, Robert, M.D., appointed Joint Demonstrator of Anatomy in Queen's College, Birmingham.
THOMPSON, George, Esq. (Senior Assistant Medical Officer at the West Riding Asylum), appointed Medical Superintendent of the City of Bristol Asylum, Stapleton, vice H. O. Stephens, M.D., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

DOUGLAS.—On May 18th, at John Street, Sunderland, the wife of *Mordey Douglas, Esq., Surgeon, of a son.
IRELAND.—On May 23rd, at the Limes, Linton, Cambridgeshire, the wife of *Edward Ireland, Esq., Surgeon, of a son.

MARRIAGE.

*LAIDLIER, Joseph, Esq., Surgeon, of South Stockton-on-Tees, to Isabel, youngest daughter of the late John ARMITAGE, Esq., Bedale, at Sunderland, on May 18th.

DEATH.

*SMITH, Charles Irving, M.D., late Inspector-General of Hospitals, Madras Army, at Montague House, Bath, aged 62, on May 21st.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, May 20th; The New York Medical Record, May 11th; The Boston Medical and Surgical Journal, May 11th; The Madras Mail, March 13th; The Shield, May 20th; The Philadelphia Medical Times, May 3rd; The Philadelphia Medical Independent, May 6th; The Accrington Times, May 20th; The Dublin Express, May 22nd; The Birmingham Daily Post and Journal, May 20th; The Glasgow Herald, May 16th; The Constitution or Cork Advertiser, May 22nd; The Leicester Guardian; etc.

OPERATION DAYS AT THE HOSPITALS.

MONDAYMetropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAYGuy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY...St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY...St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAYWestminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic Hospital, 2 P.M.

SATURDAY...St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

THURSDAY.—Linnæan Society.—Chemical Society.—Royal Society.

FRIDAY.—Western Medical and Surgical Society of London, 8 P.M.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with *halfpenny* stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

F.R.C.S. (Southampton).—There will be four vacancies in the Council of the College of Surgeons declared in July next. Mr. Carden of Worcester will preside at the Fellows' festival this year; a metropolitan Fellow in the ensuing year.

DR. STEPHEN DUKE, of Vassall Road, North Brixton, requests us to state that he is not the Dr. Duke referred to in the proceedings at the Lambeth Police Court last week regarding a charge against him for attempting to procure abortion; and that he is the only Dr. Duke in practice in the suburbs of London.

OBSTETRICIAN (Lower Tooting).—Mr. George Busk, F.R.S., the senior Vice-President of the College, is Chairman of the Midwifery Board. The other members of it are Drs. Arthur Farre, Barnes, and Priestley.

MEDICAL INSTITUTIONS IN VIENNA.

SIR,—I am afraid I shall hardly be able to give your correspondent, "A Non-travelling Fellow" (JOURNAL, April 29th), so full an answer to his queries as I could wish, since the subjects about which he inquires have not come much under my personal observation.

1. There is a corporation in Vienna resembling, in many respects, the College of Physicians in London; viz., the so-called "Wiener Doktoren-Collegium." This body has the right of admitting medical graduates to practise within the city of Vienna; and lately, at all events, if not now, this privilege could be conferred by no other authority. In addition to this monopoly, the corporation possesses the power of licensing pharmaceutical chemists, and regulating the conditions under which they pursue their occupation.

2. There are three libraries in Vienna which contain medical books. The largest is the Imperial, or Court Library, which is a national institution, and one of the great libraries of Europe. This is open to anyone during the day, but closes early in the afternoon. People of known position in Vienna are, I believe, allowed to borrow books; but it is not easy for a foreign student to get this permission. The University Library is situated in the University building, at a considerable distance from the hospital. It contains a fair collection of medical literature, and is open till eight o'clock in the evening. I often read there; but found that borrowing books was only possible to matriculated students. There was, and is, I dare say nominally, according to the "Studenten-Kallende", a medical library in connection with the medical buildings; but it was very difficult to find, and was always locked up, and, I understand, had fallen into complete disuse: so that any reference to it was regarded by the students in a humorous light.

3. The "Wiener Gesellschaft der Aerzte" is a society corresponding to the great medical societies of London and Paris. Its proceedings are regularly published, and have often had great scientific value.

With respect to Berlin, I would rather let some one, who has had more opportunities of becoming acquainted with the whole circle of medical teaching than myself, speak. During the three months which I spent there, I divided my time almost entirely between the medical *cliniques* and the laboratories, chemical and histological, of the Pathological Institute. The latter offers, I need hardly say, in some respects, an almost unrivalled field of study; of the medical clinical instruction, I have already spoken. With regard to the "specialities", I paid the less attention to them, partly because I found that other foreign students, and especially the Americans, whose estimates of what is practically useful are almost invariably just, spoke with less respect of the teachers there than of those at Vienna—always excepting the great Von Gräfe.

I am, etc,

J. F. PAYNE.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

W.—On application to the Secretary, you will no doubt obtain permission to attend Professor Birkett's lectures.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

SIR,—In your reply to F.R.S. on the 15th of April last, you remark: "The King and Queen's College of Physicians, under its old charter of William and Mary, asserts the special right of conferring the title of Doctor of Medicine on its Licentiates; as the Diploma of that College is worded, 'We confer the Degree, Title, and Qualification of Doctor of Medicine.'" I beg to inform you that, in 1864, the Queen's University applied to the Court of Chancery for an injunction against the College of Physicians to prevent them from pretending to confer the degree of Doctor; and the following is the decision of the Master of the Rolls on that occasion, which settles the matter altogether.

"I decide the case upon the construction of the Charter of the College of Physicians. Under that Charter, the person who practises physic must obtain a licence, under the common seal of the College, to use or exercise the faculty of physic; and the College is authorised to grant such licences; and I am of opinion that the power given to the College of Physicians to grant such licences, did *not* give them the power of conferring the degree or title of Doctor. The alteration, by the College, of the form of licence, in 1862, omitting the word 'degree', shows their consciousness of having *assumed a power they did not possess*. Their leading counsel, Sergeant Sullivan, fairly admitted that, if the College had not the power of conferring the degree of Doctor, they had no right to confer the title of Doctor. I entirely concur in the propriety of that admission; and I am clearly of opinion that the College of Physicians *had* no right, under the provisions of their Charter, to confer either the degree or the title." I am, etc.,

May 10th, 1871.

AN ASSOCIATE.

MR. J. MITCHELL WILSON (Chatteris) will be glad to receive information from some of his fellow members as to rules for Provident Dispensaries.

ROYAL COLLEGE OF SURGEONS.—The following were the questions on Surgical Anatomy, and the Principles and Practice of Surgery, submitted, on May 12th, to the candidates for the diploma of membership.—1. Describe the inguinal canal, its boundaries and relations to other structures, including hernial protrusions.—2. What are the causes, and the immediate and remote consequences, of sudden extravasation of urine? What treatment would you adopt in such a case?—3. Give the pathology of non-traumatic aneurism, from its commencement to its termination.—4. Describe the operation known as Chopart's, and the relative position of the various parts cut through in this amputation.—5. How are scirrhus and medullary cancer distinguished in the living subject? What organs does each form specially affect, and at what ages usually do they respectively occur?—6. By what form of accident is dislocation of the head of the femur backwards usually caused? Describe the two dislocations, in this direction, the deformity existing in each, and the proper method of reducing them. The following were the questions on the Principles and Practice of Medicine:—1. Describe a case of tubercular meningitis in a child, from the appearance of premonitory symptoms to the termination in death.—2. Give the symptoms of diabetes mellitus, with the methods of analysing the urine; also, the treatment by medicines and diet.—3. Write a prescription in full for hæmoptysis, gastrodynia, and dysentery; also, a prescription for an aperient draught and a sleeping draught.

HEMLOCK IN SCROFULA.

SIR,—Allow me a few lines in reply to the correspondent in the JOURNAL of May 13th. He objects to my citing, in illustration of the value of hemlock in scrofula, a case in which, at the same time with the conium, iodide of iron was employed in the treatment; and, no doubt, as a general rule, in endeavouring to determine the therapeutical value of a drug, it is better to employ it alone. But I consider that I was fully justified in recording the case—imperfect as the evidence may be—because, owing to the very unreliable nature of the pharmacopœial preparations of conium, and the difficulty of obtaining it in a fresh state (in which alone it can be depended upon), our present knowledge of the medicinal value of hemlock is so uncertain, that I should not feel justified in restricting a patient to that remedy alone. I have treated cases of scrofula with regulated diet and regimen and the iodide of iron, and have obtained good results. Again, I have treated other cases with these means, *plus* hemlock, and such have furnished still better results. A "clinical note" is not the place for a critical examination of the therapeutical properties of a drug, nor for quoting the authorities that have, perhaps, suggested our observations; and your correspondent seems ignorant of the fact that many practical physicians and writers on therapeutics, as well in America as in Europe, have spoken strongly of the value of hemlock in scrofula.

I am, etc.,

Temple Row, Birmingham, May 16th, 1871.

ALEX. FLEMING.

F.R.C.S.—We entirely agree with our correspondent that the dinner circular of the City Orthopædic Hospital, Hatton Garden, would have been much better without the pages of illustrations of deformities cured. The surgical officers of the hospital are Mr. Chance and Mr. Stevens; and Dr. Timothy Pollock is one of the honorary secretaries. We conclude that Dr. Pollock is the person most distinctly responsible for an artistic display in the worst possible taste, which, we trust, will be forbidden in the future.

COD-LIVER OIL JELLY.

SIR,—Dr Attfield has drawn my attention to a deficiency in the percentage of oil in my cod-liver oil jelly. In justice to Dr. Attfield, and also in good faith with the profession, from whom I have received a very liberal patronage, I beg to state that the deficiency has arisen through a miscalculation on my part; but the error has already been corrected.

I am, etc.,

JAMES AGNEW.

IF DR. BELL TAYLOR, of Nottingham, has read our paragraph in "the week" of May 20th on the subject of the Contagious Diseases Acts, he will probably have come to the conclusion that our conduct is neither "dastardly" nor "disingenuous." We hope, too, that he will apologise for the ungentlemanly language which he allows himself to use on the subject.

A CAUTION—THE MURPHY ANNUITY FUND.—A well-dressed young man, representing himself to be the appointed collector of the Murphy Annuity Fund, is soliciting subscriptions from some members of the profession. We are, therefore, requested to state that no such collector has been appointed; and that no one is authorised to receive subscriptions but Dr. Arthur Farre, the Treasurer, 12, Hertford Street, Mayfair, W.

NOTICE TO ADVERTISERS.—Advertisements should be forwarded direct to the Printing-Office, 37, Great Queen Street, W.C., addressed to Mr. F. H. HEATHCOTE, not later than *Thursday*, twelve o'clock.

THE DEATH OF COLONEL ROGERS FROM CHLOROFORM.

SIR,—In this morning's JOURNAL, you have given a brief notice of the death of Lieutenant Colonel Rogers from chloroform. A casual reader would be led by it to infer that the original setting of the bones by the two local surgeons was unsatisfactory, and that, therefore, a third surgeon was called in. The fact is, that Mr. Square (the Consulting Surgeon), on the morning following the night of the accident, found the limb in a very good position; and he administered chloroform for the purpose of shifting the limb from a McIntyre splint to a swing apparatus. This change was deemed absolutely necessary, on account of the extreme restlessness of the patient. Up to this time, the progress of the patient had been all that could be anticipated.

The enclosed paragraph is taken from the *Western Morning News*. On the same morning that it appeared, I received the subjoined letter from Mr. John Rogers, and at once forwarded it to the Editor for insertion. He refused, on account of the words "absolutely without foundation"; but inserted an explanation—to some extent a retraction, but not entirely satisfactory. You will, I trust, be somewhat more generous, and grant me space for its insertion in the JOURNAL. I am, etc.,

GEORGE MILES.

Plymouth, Devon, May 20th, 1871.

"Blackford, Ivy Bridge, May 12th, 1871.

"My dear Mr. Miles,—I have this moment seen, in the *Western Morning News*, a statement that my brother, Colonel Rogers, expressed himself dissatisfied with the setting of his ankle by yourself and Mr. Pote. You are yourself fully aware—but I think it right to enable you to state, on the authority of myself and those who were present throughout—that the statement is absolutely without foundation. Indeed, you will recollect that it was at your suggestion that additional assistance was sought. Those about Colonel Rogers were fully satisfied that all that could be done was done, and were very sensible of the kindness, skill, and attention of yourself and Mr. Pote; and you may remember that Colonel Rogers himself acknowledged this to you both, in our presence, with great cordiality. You are, of course, at liberty to make what use you please of this letter.

Yours faithfully,

JOHN C. ROGERS.

"George Miles, Esq."

MR. TERRY (Northampton).—The Vaccination Committee of the House of Commons have not yet reported. They were compelled, by want of time, to confine the evidence to the question of compulsion. Thus evidence which would have been tendered on behalf of public vaccinators by the Poor-law Committee of the Association, was shut out. But the matters brought before the Committee in the JOURNAL, and by private letters, were duly represented to the Medical Officer of the Privy Council, and will, we have reason to believe, receive Mr. Simon's careful consideration.

ABNORMAL ERUPTIONS IN SMALL-POX.

SIR,—In reference to Case II of Mr. Pollard's, I cannot help remarking on the improbability of a child, 5 years of age, and tolerably well vaccinated in infancy, having a malignant form of small-pox. The case appears to me, from the description, to be more like measles of a very severe type, killing the patient by paralyzing the nerve-centres through its influence on the blood. I have seen such a case. I believe a papular rash, partaking more of the character of scarlet-fever, has preceded small-pox in very many cases. I have under treatment a case of varicella in an infant seven months old, who had been vaccinated at three months. The mother is suckling the child while she is under the influence of revaccination. In this instance, the varicella has put on the character of vaccinia, so as almost to establish its identity with small-pox in its simplest form: the vesicles becoming umbilicated, and, when fading, showing the dark spot in the centre. But this would not justify me in saying that it was a case of small-pox, occurring so soon after vaccination. I think we ought, in justice to Jenner, to make sure that we have really a characteristic example of variola, before we pronounce upon a case of small-pox occurring soon after vaccination.

I am, etc.,

Gainsborough, May 1871.

WILLIAM HENDERSON, M.D.

THE PRESENT EPIDEMIC OF SMALL-POX.

SIR,—In the interesting discussion on "The Lessons to be derived from the present Epidemic of Small-pox", much stress has been laid upon what was termed "the quality of the vaccination", and upon the vaccination being "properly performed." Dr. Edward C. Seaton remarked: "The degree of protection depends largely on the way in which the vaccination has been done; so that while persons who have gone through the process imperfectly may either remain unprotected altogether, or acquire a protection more or less good, according to the degree of imperfection of their vaccination"; and when speaking of revaccination, said: "While a repetition of vaccination is a necessity in the imperfectly vaccinated, it is an important additional protection even in the best vaccinated." It would appear, then, that much depends upon the meaning of these terms—"quality of vaccination"; "properly performed"; "degree of perfection of the vaccination"; "imperfectly vaccinated"; "best vaccinated", etc.; but I must confess an inability to attach any definite meaning to them when applied to practice. I can readily conceive anything which has to be done, being either properly done, or improperly done; but how is either of these facts—this "quality of the vaccination", as it is termed—to be ascertained? How is the degree of perfection or imperfection of the vaccination to be determined in any one who has been vaccinated? Suppose we take an ordinary case of vaccination: the vaccine vesicle begins to appear at the usual time; it afterwards presents all the characters of a mature vesicle, a little larger or smaller in accordance with the extent of surface impregnated with the lymph; and the vaccinated presents slight feverish symptoms, or not: the lymph escapes, and the vesicle dries up as a hard dark crust, or presents a slight ulcerated surface, which may cause more or less trouble; and the whole terminates by leaving a cicatrix, larger or smaller in proportion to the size of the vesicle created, or the extent of local inflammation induced in the skin. Children who have passed through a course similar to this, have always been said to have been successfully vaccinated; and yet, the experience derived from the present epidemic has shown that many so treated will afterwards take the small-pox. I am aware it may be said that those who afterwards take the small-pox have been "improperly vaccinated"—"the quality of the vaccination was bad"; but how are we to ascertain these facts before it is made evident by the presence of small-pox? that is, supposing there was anything deficient in the previous vaccination.

Let us take another case, which of late has been of frequent occurrence. A young lady or young gentlemen calls upon you, and says: I believe I was vaccin-

ated when a child, and I have the marks of it upon both arms; but I wish to know whether it is necessary that I should be vaccinated again. The arms are examined, and upon each a well-marked cicatrix exists. Upon what data are we to rely for an answer to this apparently simple question? I know it is said that we must judge of the "quality" of the previous vaccination by the characters of the cicatrices on the arms. But the characters of the cicatrices are a most fallacious guide, as these are determined by accidental circumstances, which have no relation to the protective influence of the vaccination. The size and marked characters of the cicatrix depend upon the length of skin which has been impregnated by the lymph; upon two or more small vesicles coalescing into one; upon the amount of accidental inflammation induced on the part; and, not least, by the growth of the original cicatrix. This latter circumstance was brought prominently to my attention in an accidental manner. Several years ago, the baby of a lady I attended was disfigured by a small superficial nœvus on the right cheek, near to the nose. It gradually increased in size, and it became necessary to remove it. I made two applications of strong nitric acid, by means of a glass tube drawn to a fine point. The nœvus was destroyed, and the small ulcerated surface healed, leaving a small cicatrix. But, as the child grew, the cicatrix also grew; and each time I saw it, I was horrified to find it had grown larger and larger; so that, when the child became a pleasing young woman, she was disfigured by a scar of considerable size on the right cheek. An equally unfortunate result followed the removal of a similar nœvus, by similar means, from the forehead of another young child. The characters of these scars were so strongly impressed on my memory, that when I came to examine the cicatrices upon the arms of adults in the present epidemic, I recognised in them the same characters as were present in those distressing scars alluded to. Having once done this, it was easy to examine the cicatrices after vaccination at different periods of life; and I found that, soon after vaccination, the cicatrices were small; that, some years after vaccination, it was much larger; and that, in persons arrived at maturity, it had further considerably increased in size. So evident was this, that no doubt could exist that the original cicatrix left after the vaccination, had grown several times larger than it had been originally. Hence it will follow, that the characters of cicatrices on the arms of an adult who had been vaccinated in infancy or early childhood, bear little or no relation to the assumed "quality of the vaccination", and cannot be taken as any indication of it. But that these characters are mainly determined by the accidental circumstances already mentioned.

If these conclusions be correct, we have no means, so far as I am aware, by which we can determine the protective value of any previous vaccination—especially one effected in early childhood; whilst, on the other hand, the experience during the present epidemic has conclusively proved the great importance of revaccination after adult age. And, I apprehend, the conclusions to be drawn may be shortly stated thus.

1. It is necessary to vaccinate the infant in order to protect it during the period of childhood and youth.
 2. We do not possess any data upon which reliance can be placed, and by which we can determine the value of any vaccination some time after it has been performed.
 3. It appears clear, from the experience of the present epidemic, that the protective influence of vaccination becomes impaired during the period which elapses between infancy and maturity.
 4. In order to maintain the protective influence of the cow-pox during life, it is desirable to repeat the vaccination after the individual has arrived at maturity.
- The nature of the influences which weaken the protective power of vaccination in the earlier period of life, will remain a subject for future inquiry. But I do not believe in any mystical change at the period of puberty. No doubt, the female does undergo considerable change at this period; but only slight alteration is produced in the male, who is equally obnoxious to an attack of small-pox. I am more inclined to believe that the protective influence becomes impaired by the gradual and great changes which are effected in the system during the development of the body from infancy to maturity, rather than in any comparatively sudden change which may take place at any period of life.

7, Portland Place, W.

I am, etc.,

T. SNOW BECK.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

Dr. Henderson, Gainsborough; Mr. F. Mason, London; Dr. J. Batty Tuke, Cupar, Fife; Dr. T. Snow Beck, London; Ignoramus; Mr. C. Sprague, Kimbolton; Dr. Procter, York; Mr. J. A. Calantorientes, Scarborough; Mr. F. C. Mudd, Uckfield; Dr. B. W. Foster, Birmingham; Dr. Paget, Cambridge; The Secretary of the Clinical Society; Mr. T. Watkin Williams, Birmingham; Mr. George Thompson, Wakefield; An Old Associate; Mr. J. Mitchell Wilson, Chatteris; Mr. Higginbottom, Nottingham; Mr. G. Miles, Plymouth; The Rev. Professor Haughton, Dublin; Mr. Weightman, London; Mr. Eyton Jones, Wrexham; Mr. E. Ireland, Linton; Dr. R. H. Bakewell, Hendon; Mr. F. W. Parsons, Wimbledon; Dr. J. B. Pitt, Norwich; Mr. Reginald Harrison, Liverpool; Dr. R. Jolly, Birmingham; Dr. W. A. Jamieson, Berwick-on-Tweed; Mr. J. B. Curgenven, London; Mr. Dolman, Derby; Mr. H. L. Snow, Shrewsbury; Mr. Nicholson, Hull; Mr. W. Bourne, Bradford; Mr. Sorby, London; Mr. Hunt, London; Dr. Letheby, London; Dr. Handfield Jones, London; Dr. Falconer, Bath; Dr. Maunsell, Dublin; Mr. Haviland, London; Dr. Shearman, Rotherham; Mr. Benson Baker, London; etc.

LETTERS, ETC. (with enclosures), from:—

Dr. Brunton, London; Dr. H. R. Swanzy, Dublin; Dr. Heslop, Birmingham; Mr. Erasmus Wilson, London; Mr. Griffiths, Swansea; Dr. J. C. Thorowgood, London; Mr. C. Roberts, London; Mr. Wagstaffe, London; Mr. Wm. Squire, London; Dr. Steele, London; Dr. Sheen, Cardiff; Dr. J. N. Vinen, London; Our Edinburgh Correspondent; Dr. C. H. Philipson, Newcastle-upon-Tyne; A Public Vaccinator, Dover; Dr. G. M. Bacon, Cambridge; M. R. C. S. Eng.; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Our Dublin Correspondent; Mr. A. F. McGill, Leeds; Mr. Alfred Coleman, London; Mr. Haviland, London; The Secretary of the Dental Hospital of London; Dr. W. H. Broadbent, London; Dr. Wardell, Tunbridge Wells; Dr. Joseph Rogers, London; Mr. Laidler, Sunderland; Dr. M. W. Taylor, Penrith; Dr. Robertson, Glasgow; Mr. H. S. Gregory, Wellington; Dr. S. Haynes, Helmsley; Mr. Cleaver, Leeds; Dr. Bradbury, Cambridge; Dr. C. F. Moore, Dublin; etc.

THREE LECTURES

ON

THE PRINCIPLE OF LEAST ACTION IN NATURE,
ILLUSTRATED BY ANIMAL MECHANICS.*Delivered at the Royal Institution of Great Britain.*

BY THE

REV. SAMUEL HAUGHTON, M.D. Dubl., D.C.L. Oxon., F.R.S.,
Fellow of Trinity College, Dublin.

LECTURE II.—Tuesday, May 30th, 1871.

Geometrical Classification of Muscles found in Animals.—Application of the principle of Least Action to several forms of Muscle, demonstrating the possibility of "predicting" Animal Structures by Mathematical Calculations similar to those used in Astronomy and the other exact Sciences.—Special Illustrations from the Limbs of the Tiger and Wings of the Albatross.

IN bringing to a conclusion my former lecture, I acted on the principle that I laid down of the "least action." Taking into consideration the feelings of the audience as well as of the lecturer, and judging by my own experience in hearing sermons and lectures, I thought that somewhat less than an hour's lecture would suit your tastes. I therefore threw overboard one interesting application of the principle of least action in order to lighten the ship, and bring her safely into harbour; but if it is your pleasure that I should now state the problem of the tendons of the fore and hind limbs of animals, which I omitted to state in my last lecture, I place myself in your hands; but you will have yourselves to blame if we do not carry out perfectly the principle of minimum trouble and least action by this rash proposal.

I hold in my hand the flexor tendon of the hind leg of the eland. You will observe that at one extremity it branches into three distinct tendons, and at the other extremity it divaricates into two. These three tendons are the connecting ropes that join the common tendon in the foot with the three great muscles of the leg that act upon it. Three streams of force enter the common tendon through these three different lines, and they are then distributed by the intervention of this divaricating tendon into two; these two applications of force are carried to the toes of the animal. Somewhat similar arrangements are found in the fore limb and hind limb of almost every animal. We have the muscles acting at one extremity of the tendons, which are the connecting ropes that join the muscular forces with their points of application; and we have these both in the fore and in the hind limb. Now, in the case of many animals the fore limb and the hind limb are always used for the same purpose. In the case of the llama, the horse, and the cow, the fore limb and the hind limb have scarcely any different functions: the animals are, in the strictest sense of the word, quadrupeds; their fore feet are used simply for the purposes of locomotion. But in the higher classes of animals, like tigers, cats, bears, dogs, monkeys, and ourselves, we have the fore limbs more or less differentiated in function from the hind limbs, and set apart for the use of the brain as grasping organs. In man himself, as you all know, this is carried on to its very highest limit. Except when we are little children we do not run upon our fore feet; we have lost the use of our fore limbs as feet, and we retain our hand as the highest characteristic man can possess of his great origin—the servant of his brain, a perfect instrument for carrying out the conceptions of the brain and of the intelligence with which he is endowed. We might therefore expect, and I did expect, to find, if I compared the hands and feet of higher groups of animals together, great differences in these tendons. A certain amount of friction must take place round the ankle-joint and round the wrist-joint; and, as friction helps the weaker force, I foresaw, if my principle of least action were correct, that I should find, in the case of a hand or fore limb of an animal, that the united strength of the tendons passing from the muscle to the common tendon would be greater than the united strength of the cross tendons applied to the toes or fingers. When I grasp an object in my hand the force comes from the muscles of the arm, passes through the tendons, and is then applied to the object grasped. If the principle of least action in nature be true, the united strength of the tendons above my wrist and below my wrist will not be the same; but advantage will be taken by nature of the necessary friction that takes place at the wrist to make the tendons in the fingers less than the tendons in the arm by exactly the extent to which they are

relieved by friction. On the other hand, in using my leg as an instrument of locomotion, the force comes by reaction from the ground upward: the ground by reaction presses upon my foot; the strength of the tendons between the foot and ankle is exactly what is necessary to prevent their rupture or injury; and, in passing beyond my ankle into the calf of the leg, I should expect, if the principle of least action be a true principle, able to unlock the secrets of animal construction, to find the reverse of what I found in the hand; I should expect to find the tendons which pass from the foot into the muscles having a less cross-section than those which pass from the toes into the common tendon. And this is actually the fact. I have examined upwards of eighty animals, and I find that animals might be very fairly classified, according to this peculiar arrangement of tendons in the hand or foot, as animals that possess a "grasping power and use their hands as hands, and animals that are of a lower organisation, and use their fore feet not as hands but as organs of locomotion. In the hand of the tiger there is a friction of 22.7 per cent; in the foot of 46 per cent. But those frictions, you will observe, are reversed. The tendons of the fingers in the tiger's hand are less than the tendons in the forearm; and, *vice versa*, the tendons of the toes of the tiger are greater than those of the leg; so that, although this Table represents the friction in the hand and foot of various animals, you are to remember that the friction is *plus* in one case and *minus* in the other. The strength of the tendons in the forearm always exceeds the strength of the tendons of the fingers; while the strength of the tendons of the toes exceeds the strength of the tendons of the leg. In the wolf the corresponding figures are 31.4 and 34; in the bear, 35, and 25.9; in our cousin, the negro monkey, 27.4 and 8. This animal, you see, fully justifies the title which Cuvier applied to him of quadrumanous, for he has only a friction of 8 per cent. in his foot, because he uses it very much as a hand for the purposes of climbing; this is apparent in the low coefficient of friction shown in the hind foot.

The animals whose tendons suffers least from friction, at the wrist and ankle, are the goat and the kangaroo. The wrist of the goat is so admirably constructed that no force whatever is lost. The animal climbs a hill, runs up rocks, jumps from point to point, and he does so mainly by this admirable arrangement by which no force whatever is lost by friction in the wrist. The hind foot of the kangaroo, which is the great organ of locomotion in this animal, presents no friction at the heel. The most perfect organ of locomotion that we are acquainted with amongst quadrupeds (if we may call the kangaroo a quadruped, for he only uses two feet in locomotion) is the hind leg of the boomer kangaroo. The investigation which I have carried out in between seventy and eighty distinct animals shows in a most conclusive manner that the law of least action is attended to in every department of nature down to the most minute details. Even the expense of producing a few grains more or less of this glue (for a tendon is nothing but common glue) is carefully attended to; and in the laboratory of Nature the most rigorous and parsimonious economy is observed. Not even one grain of material is ever used when less would suffice for the purpose.

This may be carried out into very minute details which time will not allow me further to develop. I will merely call your attention to a rough sketch of the hind feet of monkeys of the old and the new world, which present many remarkable differences in construction from the feet of other animals. Their feet, as I said before, are fully entitled to the name of hands. We may classify the old and the new world monkeys by the peculiar arrangement of the tendons of their feet. In both, the tendons of the feet are supplied by two great muscles—the flexor hallucis longus and the flexor digitorum longus. (Fig 1.) You can see the distribution which I have endeavoured to show here. You see that the muscle of the great toe supplies half the first toe, the whole of the second, and the whole of the fifth; the other tendon supplies half the first toe, the whole of the third, and the whole of the fourth. Therefore the most natural action for the old world monkey would be to put the great toe opposite the third and fourth fingers, or opposite the second and fifth. The first, second, and fifth, would be a combination; the first, third, and fourth, would be a combination. In the monkeys of the new world there is a totally different arrangement. It is interesting to see how profoundly different these creatures are even in the structures connected with the hand and foot. You see here (Fig. 2) one tendon supplying half the first toe and the whole of the second, third, and fourth; half the first and the whole of the fifth are supplied by the other muscle. Therefore in the South American monkeys, best known by those beautiful little Capuchin monkeys, so called from their monk-like appearance and the devout manner of crossing their hands over their breasts, the natural action is to place the first and fifth toes together, or the first, the second, third, and fourth. In the occupation which is so common amongst them, and so useful to them, of gathering up small living creatures from their skins, you will find, if you watch

the habits of these monkeys in our gardens, that they fully bear out the anatomical theory I have explained. While the monkey of Africa prefers to grasp with the first, second, and fifth toes, the monkey of

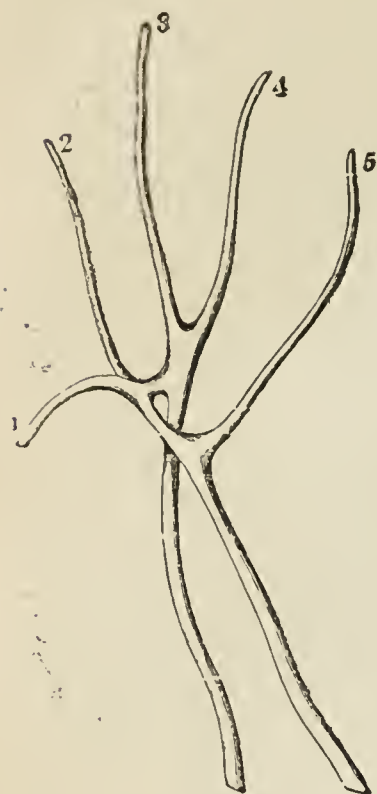


Fig. 1.

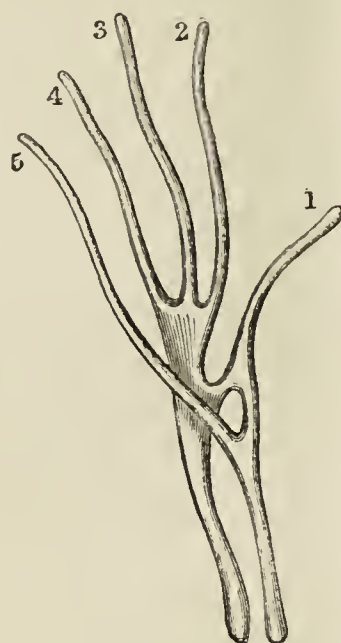


Fig. 2.

South America will show equal dexterity in seizing an object with the first and fifth alone. Fig. 3 represents the tendons of the foot of the jaguar.

I now come to the proper subject of my present lecture, which is the classification of muscles. Muscles were originally classified by Alphonso

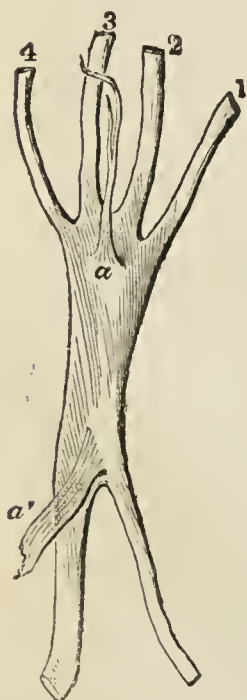


Fig. 3.

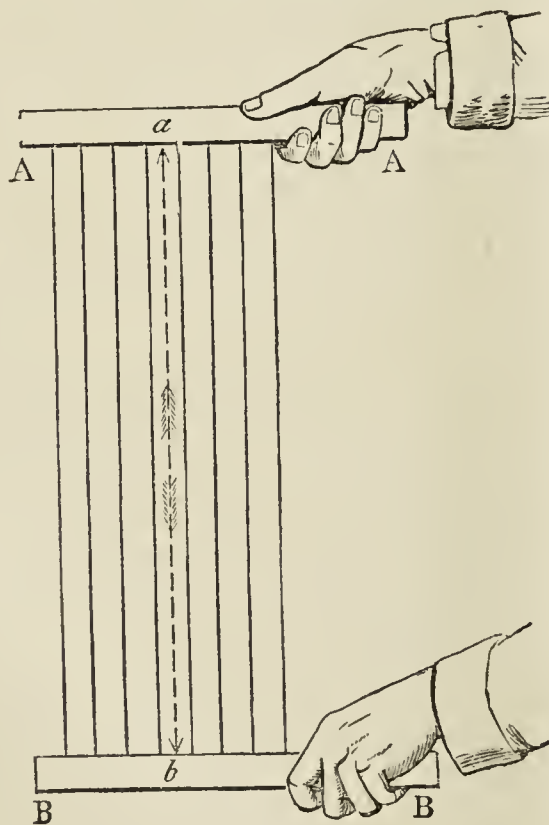


Fig. 4.

Borelli, who divided them into various groups; but, as this is not an historical or antiquarian sketch, I shall content myself with giving you my own classification, which is based upon his, and is a considerable improvement. I divide all muscles into the following; the prismatic muscle (fig. 4), where the fibres pass parallel to each other from bone to bone; the penniform muscle (fig. 5), where the fibres radiate at equal angles from a common tendinous line, and are inserted, of course, at each extremity into the bone; the triangular muscle, where the muscu-

lar fibres proceed from a fixed line, and are inserted not into a point, but into a line, so short that we may for practical purposes regard it as a point; and the fourth class I call quadrilateral muscles, where they are drawn in lines converging from one bone to another.

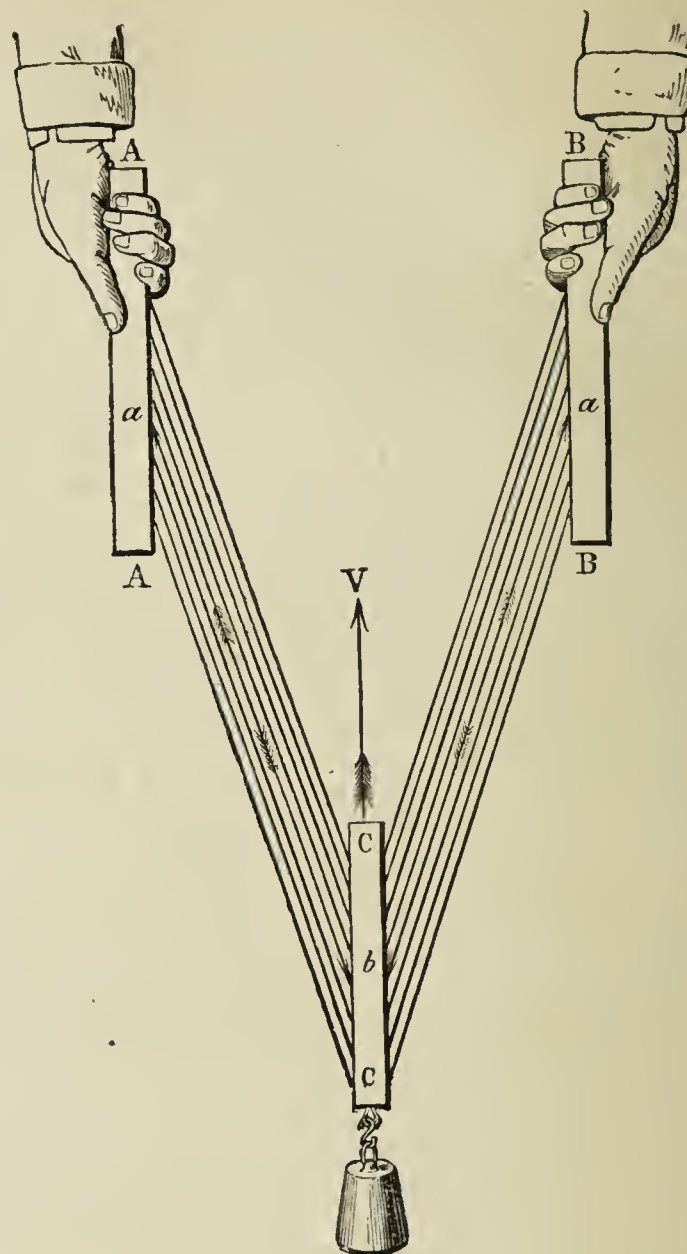


Fig. 5.

If A B represent one bone, and A' B' another bone (fig. 6), these bones may be curved in any way you please. In Nature, as you know, everything is curved in forms that mathematicians cannot imitate. We find the muscular fibres so arranged that, if A B and A' B' lie in the same plane, if I produced them all, they would pass through a common point of intersection. I ask you to take that for granted. I have proved it, but I will not trouble you with the proof. Therefore the quadrilateral muscle is really nothing but a triangular muscle with the top cut off. If I take the triangular muscle running from a bone to a point, and cut off the top of it and place the second bone along the section so cut off, I have a quadrilateral muscle. The quadrilateral muscle is easily dealt with as long as the two bones remain in the same plane. The contraction of the fibres causes these two bones to approach in the same plane. Often, however, A B and A' B' do not always remain in the same plane; they are not as accommodating as geometers and mathematicians would wish; they leave their plane and form what we call in geometry skew surfaces (fig. 6). This model intended to show the manner in which a plain quadrilateral muscle becomes what we call a skew surface. You are probably acquainted with the term from engineers using it in the construction of what are called skew bridges for railways. A skew surface is a very remarkable thing. It is made up of a number of straight lines, yet every portion of that surface, except along these particular lines, is a curve. Now I have succeeded in discovering that the particular skew surface, of which muscles are capable of assuming the shape, is the beautiful surface known to geometers by the name of the hyperboloid of one sheet. Here you see a number of straight lines, which I shall suppose to represent muscular fibres passing from the bone A B to another bone A' B'. I have made the bones of the same length,

but the results would be similar, if I made the bones of different lengths or of any curvature I pleased, and placed them in the same position. I now take this muscle and distort it out of its plane. You see I have now a curved surface in which every portion is made up of straight lines. I can curve the surface in the opposite direction, and so I make the hyperboloid of one sheet out of a plane

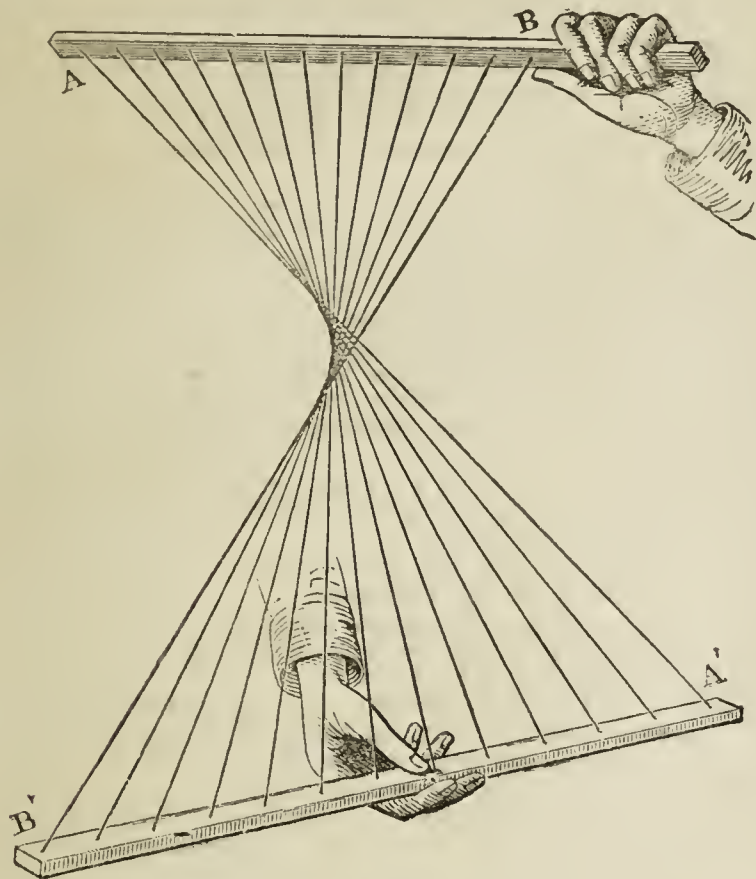


Fig. 6.

quadrilateral muscle. This is not a mere fiction of geometers. The adductor magnus muscle in the leg of man, and the great pectoral muscle in the wing of every bird, are living examples of the reality of this curious fact, that Nature constructs not merely plane muscular structures, but that she is capable of constructing muscular surfaces belonging to the most beautiful and elegant forms that have been studied and invented by abstract geometers. A friend of mine, one of the most distinguished of living geometers, when I informed him that Nature used familiarly the hyperboloid of one sheet in making her muscles, told me that his respect for her was considerably increased. The last forms of muscle to which I shall direct your attention are the sphincter muscle, which represents a number of circular fibres surrounding an orifice, and the ellipsoidal muscle, which represents muscles of greater or less thickness surrounding a cavity called ellipsoidal, because the cavity so formed is generally egg-shaped. In the next lecture I shall direct your attention to the most important of all these forms of muscles in the human heart and the hearts of animals. I shall confine our attention to-day to the more elementary muscles represented by the prismatic, penniform, triangular, quadrilateral, and the hyperboloid muscle of one sheet.

The prismatic muscle and the penniform muscle possess the remarkable property, which can be demonstrated mathematically, that in their contraction no loss whatever takes place. Nature, therefore, according to my principle, is entitled to employ these two forms of muscles whenever she pleases. She suffers no loss or injury by using these forms of muscles, and we find, therefore, that both these classes of muscles are constantly employed. When you come to the triangular, the quadrilateral, and skew muscles, we can demonstrate by mathematics that in the use of every such muscle there is a necessary loss of force. I may, therefore, be asked—How comes it, if the principle of least action be true, that Nature ever employs muscles involving a necessary loss of force? I answer, because Nature has other problems in view than mere economy of force in a single muscle. She has to consider if she economise force simply, without regard to other circumstances, such as beauty of form, and surface of least resistance, whether she might not lose rather than gain, taking into consideration all the conditions. I have always maintained that beauty of form, symmetry of outline, was one of the pre-existing conditions in the mind of the contriver of the universe, as well as economy of force. We find, therefore, that Nature

never uses a triangular or quadrilateral muscle except under great necessity, of which I shall now give you a remarkable example (fig. 7).

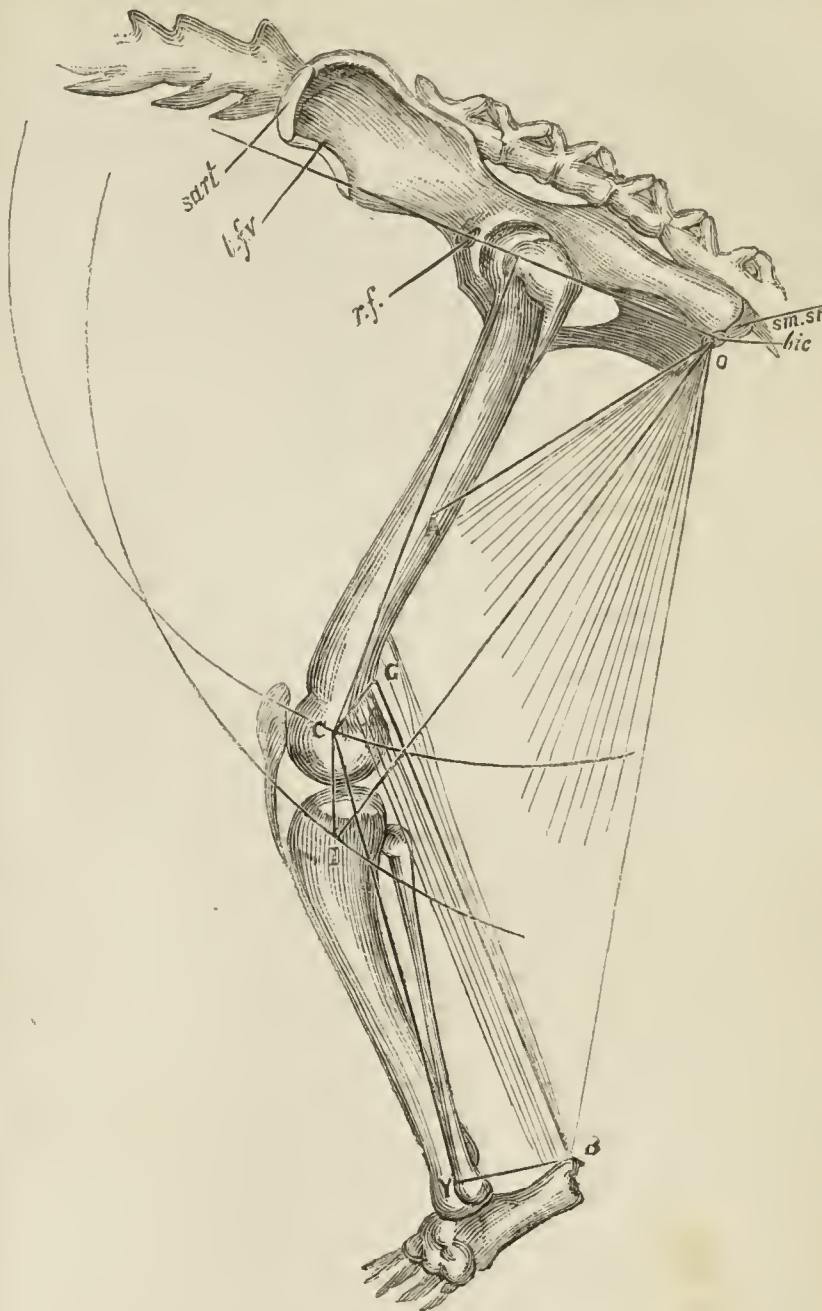


Fig. 7.

The most wonderful triangular muscle in the world is here shown in the biceps femoris muscle, or the flexor of the thigh in the tiger. The muscular fibres radiate from O; they are inserted from the middle of the thigh down to the heel. This enormous muscle forms one great sheet of muscle passing from the tuber ischii, and spread out over a space of three feet along the side of the leg. That muscle exists in me and in every other mammalian animal that lives. In most other animals it is arranged as a prismatic muscle. In my leg it is like a rope of parallel prismatic fibres. Now, I ask—"Why has Nature deliberately sacrificed a certain amount of force by putting a triangular muscle into the leg of the tiger to do the work which she does so effectually in my leg by a straight rope of muscle?" The answer is this, that I am a man and not a tiger; I am not intended as a tiger is, to hide in a jungle, to jump from the jungle at a troop of horsemen going by, to take one of them and carry him off in spite of the rest, and eat him. That is not the purpose for which the Creator brought me here; but if I were brought here for such a purpose I am sure I should have a triangular muscle in my leg. The weight of muscle to give the tiger the spring which enables him to do these feats is so enormous, that if it were placed as a single rope from point to point it would not only be a great deformity in his appearance, but would seriously impede him in his progress through the jungle. The clumsy nature of this enormous rope of muscle attached to him would injure him, therefore Nature has deliberately thrown overboard the first idea that might present itself, which was to put a great rope from point to point, and to make it strong enough. "No, I cannot do that," says Nature, "I must preserve beauty of form," making the tiger (what it is) the most beautiful creature

which God has created. Therefore, the tiger is given a triangular muscle with a certain amount of loss of force, but there is a gain by spreading the muscle over a great surface, a gain in the packing and shape of the leg—there is more gained than lost by the apparent sacrifice of force.

An interesting fact may here be stated, the extreme beauty of which every anatomist present will appreciate. We can demonstrate, and I ask you to take it for granted, that the resultant force of the fibres of quadrilateral and triangular muscles lies in the bisector of the vertical angle. When I take the triangular muscle in the leg of the tiger, and draw the bisector of that angle on a tiger's dead body, I find that the bisector of the angle passes rigorously through the top of the fibula, the peroneal or small bone of the tiger's leg, through the very spot in which the biceps muscle in my leg is inserted; so that, although the tiger's muscle is triangular, it really behaves like an imaginary muscle working along an imaginary line, passing from the same point in the tiger from which it passes in my pelvis to the very same point, the top of the fibula, to which it is attached in my leg also. Here Nature is not to be accused of departing from the principle of least work. In this case, the strict carrying out of that principle would injure her in other ways, as in the packing of the muscles; therefore she has deliberately abandoned it, making a small sacrifice in order to obtain a greater advantage. Nature always acts upon the French proverb, "*Reculer pour mieux sauter.*" I have said before that she is at perfect liberty to use, as far as I am concerned, either the penniform or the prismatic muscle; and I cannot criticise her proceedings in that respect. Still her use of the penniform muscle is very sparing, as if she did not like to use her resources except when they were absolutely necessary. We find, although there is no loss of force in a penniform muscle, it is a rare form of muscle, and only resorted to when there is a worthy object. The most remarkable example I can give you of the penniform muscle in Nature is the muscle which lifts the wing of the bird. The bird's wing is depressed by great and powerful muscles, which I shall describe at the close of the lecture: it is lifted by a small compact muscle, which is placed upon the breast of the bird, in order to keep the centre of gravity of the bird as far back as possible. It is worthy of remark, that in the case of the ostrich, which does not fly, Nature places this muscle on the neck of the bird, because it is no injury to the ostrich to have the muscle on the neck; whereas it would be destruction to any other bird to have it so. This muscle placed upon the breast works by a tendon passing through a pulley, and changes through an angle of 180 degrees in its application, so as to lift the wing of the bird. The nature of a bird's flight is this: The depressor muscles of the wing must be made enormously great, to strike the air with the utmost force; the muscles which lift the wing must be made as light and small as possible, because their only object is to bring back the wing through the air after the stroke is made; this ought to be done in the shortest possible time, because, while the wing of the bird is rising through the air, the bird is falling: therefore we find that Nature, or rather the great Author of Nature, always employs the penniform muscle to lift a bird's wing; and for this reason, since the fibres converge at an angle towards each other, by compounding their forces the velocity along the diagonal is greater than it would be in a prismatic muscle. Thus no force is lost; and the bird is enabled to repeat the downward stroke much faster than if the prismatic form of muscle had been retained.

[To be continued.]

A CASE OF SMALL-POX USHERED IN WITH ROSEOLA VARIOLOSA.

By HERBERT W. PAGE, M.B. Cantab.,

House-Surgeon to the London Hospital.

THERE are certain points of special interest in a case of small-pox formerly under my care in the Alice Hospital, Darmstadt, which render it somewhat worthy of notice at the present time. In reading the notes of the case, it will be observed that there was an almost total absence of premonitory symptoms at the commencement of the disease. The patient complained merely of slight headache and nausea, supposed to be due to the morphia given to relieve the sciatic pain. The invasion of the secondary fever was characterised by symptoms of unusual violence. Most commonly the secondary fever is noticed by an increase in the temperature. So it was in this case, but in addition there were repeated rigors of great severity. The first appearance of rash was in the right groin, where it was definitely localised. The eruption was from the first papular, but the papules were so closely aggregated together as to give a uniform aspect to the part, and this was more marked when the rash had spread to the left groin over the lower part of the abdomen. In his work on *Diseases of the Skin*, Hebra mentions some unusual

forms of rash noticed at an early stage of the disease, and "before the appearance of the true eruption." In one form—*roseola variolosa*—the duration of the efflorescence is very short, and it fades away as the characteristic papules become fully developed. In another form, he describes a rash which appears as a mere hyperæmia—or, in other instances, of an hæmorrhagic nature—at the lower part of the abdomen and upper parts of the thighs. The true small-pox eruption begins two or three days after its appearance. My case would seem more to resemble the *roseola variolosa*, differing from it, however, in the localisation of the rash, which rendered diagnosis extremely difficult, and caused no suspicion of small-pox. When the eruption had become more extended over the abdomen, it had some of the features of the second form described by Hebra.

The notes of the case are as follows. Carl Dietewig, aged 25, private in the 4th Hessian Infantry Regiment, was admitted into the Alice Hospital on December 11th, 1870. The patient stated that he had been ill for four weeks, during two of which he was in a lazareth near Orleans, with diarrhœa, but he had had no fever. On admission, he complained of pain in the course of the right sciatic nerve. This pain had continued for some days, and it had prevented him from walking. There was no tenderness on pressure, and no wasting of the limb. With this exception, he expressed himself, and to all appearances was, perfectly well.

Dec. 15th.—The patient could not sleep, owing to severe pain in the right sciatic region. In the evening he had a subcutaneous injection of a quarter of a grain of morphia.

Dec. 16th.—He slept well and had less pain. He complained of headache and a constant feeling of sickness.

Dec. 17th.—He was much the same as yesterday. A copious closely aggregated papular eruption appeared on the right groin. It was of a deep red hue. There was no irritation.

Dec. 18th.—The rash had spread over the lower part of the abdomen to the left groin, and as high as the umbilicus. The eruption was symmetrical. His appetite was good, and he felt well. The temperature at midday and in the evening was 104 deg. Fahr.

Dec. 19th.—Morning temperature 104 deg. Fahr.; pulse 120. Some fresh papules had appeared higher up on the abdomen, chest, forehead, and wrists. The evening temperature was 104.3 deg. Fahr.

Dec. 20th.—The morning temperature was 102.7 Fahr.; pulse 112. The patient had slept well. He had no pain. His appetite was good. The rash had spread copiously over the face, back, and arms. The papules were of a purple-red colour, and varied in size. On the abdomen where the spots were closely aggregated together, the appearance at a short distance was strikingly like that of erysipelas, though the colour was somewhat darker. On the back the papules were innumerable. On the original site of the rash—the right groin—the red blush was not so marked, and each isolated spot was not so red, nor so elevated. His face was uniformly swollen. There was some irritation about the eyes and nose. The evening temperature was 104 deg. Fahr.

Dec. 21st.—The morning temperature was 100.9 deg. Fahr.; pulse 104. On the right tonsil could be seen three or four white patches, each circumscribed, circular, and of the diameter of a small pea. On the right groin the eruption had almost disappeared. On the face it was in great part vesicular and pustular. The evening temperature was 103.1 deg. Fahr.; pulse 110.

Dec. 22nd.—The patient had slept well. With the exception of pain on swallowing, the patient said that he felt well. His face was very much swollen; eyes closed. On the arms each spot had a circumscribed red base; on this was an elevated flat disc of a pale yellow colour, and with a marked central depression. On the face many of the spots had run together. The tongue was thickly furred. He said that he was once vaccinated when a child, but no definite cicatrix was visible. The morning temperature was 99.5 deg. Fahr.; the evening temperature, 102.5 deg. Fahr.

Dec. 24th.—The morning temperature was 100.4 deg. Fahr. The patient slept well. He had no pain. This morning he had several "shivering" fits, during which his teeth chattered, and the bed was shaken violently. His legs were now covered with the eruption. The face was more swollen. Some of the spots on the face had burst. All were of a muddy yellow colour. He was said to have been breathing with difficulty, but at 6 P.M. there was no evident difficulty of respiration, and air entered his chest freely. His urine did not contain albumen. The evening temperature was 104.2 deg. Fahr.; pulse 120.

Dec. 25th.—In the morning the temperature was 104 deg. Fahr.; respiration 32. There was a great and apparent change for the worse. His breathing was anxious and laborious, and there was evidence of much obstruction. The face and hands were livid. He complained of "slime" in his throat. The patient died at 11.30 A.M.

There was no necropsy.

LECTURES

ON THE

EXPERIMENTAL INVESTIGATION OF THE ACTION OF MEDICINES.

BY T. L. BRUNTON, M.D., D.Sc.,
Lecturer on Materia Medica at the Middlesex Hospital.

III.—ARTIFICIAL CIRCULATION : INVESTIGATION OF BLOOD-PRESSURE.

Artificial Circulation of Blood.—Circulation of Warm and of Cold Blood.—Fever.—Mode of Conducting Artificial Circulation.—Application of this Method to Pharmacological Investigations.—Schema of the Circulation.—Circulation in the Living Body.—Importance of the Arterial Elasticity.—Arterial Tension or Blood-Pressure.—Oscillations in it produced by the Heart and Respiration.—Causes of Variation in the Blood-Pressure.—Influence of Nerves upon it.—Cardiac Ganglia.—Inhibitory Nerves of Heart.—Quickening Nerves of Heart. Vaso-motor Nerves.—Vaso-inhibitory Nerves.—Action of Counter-irritants.—Tabular View of the Causes of altered Pulse-Rate and Blood-Pressure.—Application of this to Pathology.—Experimental Examination of Blood-Pressure.—Forms of Manometer.—Kymographion.—Mode of Using the Kymographion.—Reduction of the Kymographion Tracings.—Mode of Recording Experiments.—Graphic Method of Representing Experiments.

ARTIFICIAL CIRCULATION OF BLOOD.—A constant supply of arterial blood to all parts of the body is necessary to preserve their vitality ; and if the supply to any part be cut off by stopping its circulation, that part will die. Thus, if the circulation be stopped in an arm or leg by tying its arteries, or through their becoming plugged by emboli, mortification, or death of the part, ensues ; and if the heart cease to beat, and the circulation be thus stopped in all parts of the body, they all die. But, if we supply arterial blood artificially to any one part, we may keep it alive at least for a certain time after the rest of the animal is dead ; and the muscles may be made to contract, the lungs to excrete carbonic acid, the lymphatics to pour forth lymph, and the excised liver to secrete bile, for hours after the rest of the animal has been consigned to the dust-bin.

CIRCULATION OF WARM AND COLD BLOOD.—For this purpose, blood may be used either at the temperature of the room or of the body; but these have not exactly the same effect, and experiments made with blood at one temperature must not be compared indiscriminately with those made with blood at another. Professor Ludwig, to whom we owe this method, has discovered by its means the curious fact that the muscles of a warm-blooded animal may be artificially endowed with the properties of those of a cold-blooded one. Those of a frog or other cold-blooded animal retain their irritability, and contract, when stimulated, for a long time after they have been removed from the body; while those of warm-blooded animals quickly lose theirs, and will no longer contract on the application of a stimulus, no matter how powerful it may be. But if the muscle of the warm-blooded animal be quickly cooled by passing a stream of *cold* blood through its vessels immediately after it has been excised from the body, and before it is stimulated, it will retain its irritability for a long time, and respond to stimuli applied again and again, like that of the cold-blooded frog.

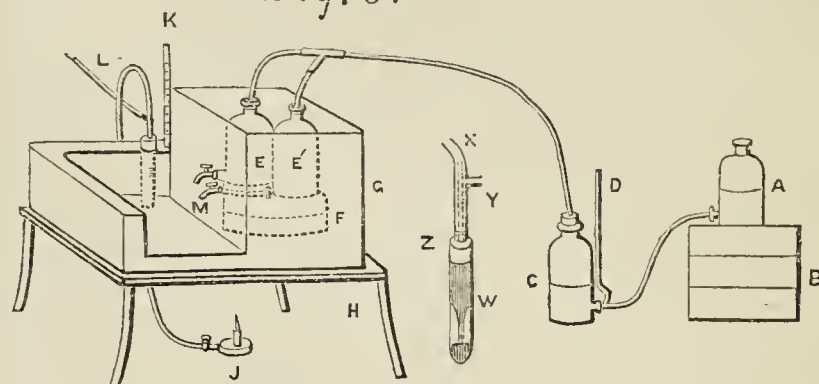
FEVER.—In the same way, by supplying the heart of a mammal with cold blood, it may be made to resemble that of a frog or turtle; while, on the other hand, if the heart of a frog be supplied with warm blood, it will become like that of a mammal; and, if the temperature be still further raised, the quick and weak beats of fever are produced.

MODE OF CONDUCTING ARTIFICIAL CIRCULATION.—When we wish to pass blood, at the ordinary temperature of the room in which we are working, through any organ, we defibrinate the blood of the animal itself from which the organ has been obtained, or the blood of an animal of the same species; dilute it somewhat with salt solution of 1 per cent.; and put it into a flask with two necks, one of which is near the bottom of the flask, as seen at A, Fig. 6. We then introduce a cannula into the principal artery of the organ, and ligature, if necessary, the smaller arteries and branches; fill it carefully with blood by means of a fine pipette, so that no air-bubble remains in it, and connect it with the lower neck of the flask. By then simply raising the flask, the blood flows out of it through the cannula into the vessels, and out again by the veins, from which it may be collected, shaken with air, and used over again. As the lips of the divided veins are sometimes apt to fall together and hinder the exit of blood, it is advisable to put a

cannula into them as well; and great care must be paid to the adjustment of these, in order that they may be fairly in a line with the lumen of the vein, and not form an angle with it, which would present an obstruction to the flow of blood from it.

For the purpose of passing a stream of blood at the temperature of the body, we use the same apparatus ; but the flask containing blood (E, Fig. 6) is then placed in a water-bath, kept constantly heated to 98 deg. F. As this prevents us from conveniently raising the flask high enough to obtain the pressure required to carry on the circulation, we supply the want by compressing the air in the upper half of the flask, E, by means of two other bottles, A and C, containing mercury or water. On raising A, the fluid which it contains runs into C, and compresses the air in its upper half; and, as this communicates with E by an India-rubber tube, the pressure is freely transmitted to it, and exerted on the surface of the blood which it contains.

Fig. 6.



A and C. Bottles containing mercury or water. B. Wooden blocks, by which A may be raised to the required height. If water be used, it is easier to suspend it from a pulley in the ceiling, so as to get sufficient pressure. D is a manometer, to estimate the pressure in C and E. E is a bottle containing blood. F is a small stand to raise the bottle E from the bottom of G, as it is otherwise apt to become too warm, and the bottom of the bottle cracks, or the blood is decomposed. G. A tin water-bath. At one side of it, is a trough with hollow sides, into which the warm water freely passes, and in which the organ to be experimented on may be laid. H is an iron stand supporting G. I is a Mitscherlich's burner. K is a thermometer, by which the temperature of the water-bath is examined. L. Bunsen's gas regulator, as modified by Geissler. This apparatus consists of a wide glass tube w, divided into two parts by a septum, from the middle of which a tube runs down nearly to the end of w. The upper part is filled with mercury, which, of course, runs down the inner tube, and fills the bottom of w, compressing the air in it. A perforated cork z is then put into the upper part of w, and the tube v pushed through the hole in its centre. Inside v, and shorter than it, is a second tube x, and the two are sealed to one another at their upper ends. The tube v is then connected to a gas pipe, and x to Mitscherlich's burner, by India-rubber tubing. So long as v is not pushed so deeply into w that the point of x dips into the mercury, the gas enters through v, passes down between v and x, comes up again through x, and goes to the burner. The apparatus is now set by dipping it into the water-bath, and heating the water to 98 deg., or any other temperature desired, and then pushing v down till the point of x is just covered by the mercury. The passage of gas through it is at once stopped, and the flame would go out, were it not that a very small hole in the side of x admits just enough gas to keep it alive. As the flame gets low, the temperature of the water-bath above it diminishes; the air and mercury in w contract and leave the end of x open, so that the gas again passes freely to the burner, and the flame becomes larger. The water-bath now regains its former temperature, the air and mercury expand, the end of x is again closed, and again the flame becomes small. By this apparatus, a water-bath may be kept for a very long time without varying more than half a degree.

APPLICATION OF THIS METHOD TO PHARMACOLOGICAL INVESTIGATIONS.—Besides its use in the experiments of Ludwig and his pupils on the secretion of bile and the formation of lymph, this method has been used by Cyon to show that urea is formed in the liver; but, so far as I know, no experiments on the action of medicines have yet been made by its means. It may seem, then, a strange thing that I should mention, in a course of experimental pharmacology, a mode of research which as yet has only been tried in physiology; but the good service it has already done the physiologist, and the splendid promise it gives to us, are, I think, a sufficient excuse. For we can thus take two similar organs, or two parts of the same organ, and supply them with the same blood, at the same temperature and the same pressure—in short, we may put them under exactly the same external conditions; but to the blood supplying the one we may add any drug whose action on the organ we wish to test. We can analyse the blood flowing into, and that flowing from, the substance of the organs before and after the experiment, the lymph produced, or the secretion poured forth; and by comparing the results when the drug was added with those obtained when it was withheld, we may, I think, gain such a knowledge of its action as could be got in no other way.

SCHEMA OF THE CIRCULATION.—In the living body, a constant stream of blood is kept up in the vessels, in exactly the same way that

a constant current of air is produced in Richardson's spray-apparatus. By removing the glass or metal tube from one of these, and attaching a nozzle with a small stopcock to the India-rubber tube in its stead, we obtain a very good schema of the circulation; and, by imitating on it the changes which occur in the heart and vessels, we may form a much clearer idea of them than we could otherwise do. The India-rubber ball will represent the heart; the elastic bag, surrounded by netting, will represent the elastic aorta and larger arteries; and the stopcock, which regulates the size of the aperture through which the air escapes, will represent the small arterics and capillaries, whose contraction or dilatation regulates the flow of blood from the arteries into the veins. If we turn the stopcock so as to present some resistance to the escape of air, and then compress the India-rubber ball, very little air will issue from the stopcock even while we are squeezing the ball; the greater part of it goes to distend the bag; and, when we cease to compress the ball, no air at all comes out from the stopcock. At the next squeeze, the bag becomes a little more distended; and a little air issues from the stopcock, not only while we are compressing the ball, but even when we relax our grasp. At each squeeze of the ball, the elastic bag becomes tighter, till it is so tense, and contracts so strongly on the air inside, that it can press all the extra amount of air forced into it when the ball was compressed, out through the stopcock, during the time when the ball is relaxed. When this is the case, every time we squeeze the ball we see the bag become a little fuller, and air issue more quickly from the nozzle. At each relaxation, while the ball is refilling, the bag gets a little slacker, and the air passes out of the nozzle a little more slowly, but never stops entirely. During the time the ball is filling, the valves between it and the bag and nozzle are closed, and cut it off from any connexion with them. All this time, then, the stream of air from the nozzle must be entirely independent of the ball; it is produced by the contraction of the elastic bag, and by it alone. The bag may be stretched, and the tension of its walls increased in consequence, in two ways: first, by working the ball more quickly; second, by lessening the opening of the nozzle, and thus hindering the passage of air through it. One trial will, I think, be enough to show you how much easier it is to alter the pressure by changing the size of the nozzle than by any alteration in the working of the ball, and thus convince you that alterations in blood-pressure probably depend much more on alterations in the lumen of the small arteries than on changes in the action of the heart.

But our schema, as it at present exists, is not a perfect representation of the heart and vessels; for it draws its air from an inexhaustible reservoir, the atmosphere, and is not obliged each time to use that amount alone which it had previously driven through the nozzle; while the heart can only use the blood which has been forced by it through the capillaries and returned to it by the veins. In order to make our schema complete, we must connect its two ends by tying them into a bladder or large thin caoutchouc bag (such as is used, after inflation, as a toy for children), so that the air shall pass into it from the nozzle and be sucked out of it by the elastic ball. This will represent the veins. If we then repeat the experiment just described, we shall find that, when we begin to work the ball and stretch the elastic bag representing the arteries, the bladder, representing the veins, becomes empty and collapsed; and just in proportion as we fill the bag do we empty the bladder. If we now stop, the air will gradually escape from the bag to the bladder, till both are equally filled as they were at first.

CIRCULATION IN THE LIVING BODY.—The phenomena of the circulation in the heart and vessels are very much the same as in the spray-producer. When the heart stands still (as when the vagus is strongly galvanised), the blood flows from the arteries into the veins till they are nearly full and the pressure inside both is about the same. If the heart now begin to beat, it forces blood into the elastic aorta and arteries at each systole, and distends them, just like the elastic bag of the spray-producer; while at the same time it takes blood from the veins, and they become empty in proportion as the arteries become full. At every diastole, the elasticity of the distended aorta causes it to contract on the blood it contains, and keeps it flowing on through the capillaries till another systole occurs. During the diastole, the heart is completely shut off from the aorta by the sigmoid valves (just as the ball of the schema was shut off from the elastic bag), and the blood is kept flowing during this time by the elastic contraction of the aorta and large arteries. In general, the diastole is longer than the systole; so that for the greater part the circulation is carried on by the elasticity of the arteries, and not directly by the heart. The arteries become distended by the heart, just as the elastic bag was by the ball, and press more and more on the blood in them (so that it would spout higher and higher, if one of them were cut), till they are able during the diastole to press the same amount of blood through the capillaries into the veins as had been pumped into them during the systole. The

more these are stretched, the greater is the pressure they exert on the blood they contain; and the amount of this is termed the *arterial tension* or *blood-pressure*. These two terms mean the same thing, and we use one or other just as the fancy strikes us. At each systole, the fresh supply of blood pumped in by the heart stretches them more; that is, the arterial tension rises. During each diastole, the blood escapes into the wide and dilatable veins, and the arteries become relaxed; that is, the arterial tension falls.

Besides the oscillations which take place in the blood-pressure at each beat of the heart, a rise and fall in the form of a long wave occurs at each respiration. The wave begins to rise just after inspiration has begun, reaches its maximum just after the beginning of expiration, and then begins to fall again till a new wave succeeds it. The heart-beats are generally quicker during inspiration, and slower during expiration.

The blood-pressure thus oscillates up and down at each heart-beat and rises and falls with each respiration, and the average between the highest and lowest points is called the mean arterial tension or mean blood-pressure.

CAUSES OF VARIATION IN THE BLOOD-PRESSURE.—The pressure of blood in the arteries depends on two circumstances: first, the amount of blood pumped into them in a given time; and second, on the amount that flows out of them into the veins in the same time. If more be pumped in, or if less flow out, it will rise; if less be pumped in, or if more flow out, it will fall. It may, therefore, be raised—1. By the heart beating more quickly; 2. By a larger amount of blood being sent into the aorta at each beat; 3. By contraction of the small vessels. It may be lowered—1. By the heart beating more slowly; 2. By the heart sending out less blood at each beat; 3. By dilatation of the small vessels, allowing the blood to flow more quickly into the veins; 4. By contraction of the pulmonary vessels, or obstruction to the passage of blood through them.

The influence on the pressure exerted by the amount of blood sent out by the heart at each beat, and by the number of beats, to a certain extent, though by no means completely, counteract each other; for, when the heart is going quickly, it has not time to fill completely, and so sends out little blood at each beat; but, when going slowly, it becomes quite full during each diastole, and sends out a larger quantity of blood at each contraction.

It must be remembered that we measure the blood-pressure in the systemic arteries; and, before the blood can get into them from the veins, it must come through the pulmonary vessels. Any contraction of the lumen of these vessels, by lessening the entrance of blood into the systemic arteries, will cause the pressure in them to fall.

INFLUENCE OF NERVES ON BLOOD-PRESSURE.—Both the quickness of the heart's beat and the contraction of the arteries are regulated by the nervous system; and it is generally by acting on different parts of it that drugs alter the blood-pressure, though they may also do so by acting on the muscular walls of the heart and arteries themselves. The parts of the nervous system chiefly concerned in regulating the circulation are:

1. The *cardiac ganglia* which lie in the walls of the heart, and are, in all probability, the cause of its rhythmical action.

II. *Inhibitory nerves*, which render the heart's action slow, and, if irritated very strongly, may stop its beating altogether, and produce still-stand in *diastole*. The inhibitory fibres have their origin or roots in the medulla, and proceed in the vagi to the heart. In man and in dogs, they are normally in constant action; and, after they are cut or paralysed, the heart beats in the dog three or four times as quickly, and in man twice as quickly, as before. In rabbits and cats, they act less, and their division only makes the heart go one-half or one-fourth faster. A drug may irritate them, and render the heart's action slow—

1. By acting *directly* on (a) their roots in the medulla, (b) their fibres, (c) their ends in the heart;

2. Indirectly, through its action on other parts, producing (a) increased blood-pressure, or (b) accumulation of carbonic acid in the blood, both of which act as irritants to the vagus-roots;

3. Reflexly, through irritation of sensory nerves, irritation of the intestines, of the sympathetic nerve, of the depressor, or of the vagus of the other side. Reflex irritation is only likely to be caused by drugs having a powerful local action.

Drugs may also paralyse the inhibitory fibres, and thus quicken the heart.

III. *Quickening Nerves*. These belong to the sympathetic system. They have their origin in the brain or medulla, pass down through the cervical part of the spinal cord to the last cervical and first dorsal ganglion (which are often united), and thence through the third branch of the ganglion to the heart. Quickening fibres are said by some to run also in the cervical part of the sympathetic cord. Unlike the vagus, the quickening nerves are not normally in constant action. They may be irritated—

1. By the direct action of drugs upon them.
2. Indirectly by the drugs producing a diminished blood-pressure, which acts as a stimulus to them.

IV. *Vaso-motor Nerves*, which cause the smaller arteries, and probably also the capillaries, to contract. These belong to the sympathetic system; and the most important of them are the splanchnics, which produce contraction of the intestinal vessels. As these vessels can, under certain circumstances, hold all the blood in the body, the influence of the splanchnics over the blood-pressure is very great; and division of these can lower it, or stimulation of them increase it very much. The centre of the whole vaso-motor system, however, seems to be in the medulla oblongata; and it is generally in constant action, keeping up a certain amount of contraction or tone in these vessels. Its activity may be increased, and the vessels made to contract—

1. By direct irritation of the centre.

2. By reflex irritation through (a) the cervical sympathetic, (b) the vagus, when the brain is intact, and the animal not narcotised, (c) sensory nerves. When the medulla is separated from the rest of the body by dividing the spinal cord at the atlas, it can, of course, no longer exert any influence over the vessels; and they consequently become dilated throughout the whole body, and the blood-pressure sinks very low. If the lower end of the divided cord be then irritated, the vaso-motor nerves which pass through it from the medulla to the body are stimulated, and the blood-pressure rises.

V. *Vaso-inhibitory nerves*. Irritation of these nerves is conducted to the vaso-motor centres, and acts on them in such a way as to cause a reflex dilatation of the small vessels, either (1) throughout the whole body, or (2) in one particular part of it.

1. The chief nerve which causes dilatation throughout the whole body is one which runs from the heart to the medulla, and is called, from its power of diminishing blood-pressure, the depressor nerve. Its fibres seem to be included in the vagus in the dog; but in the rabbit it generally runs separate from the heart to the level of the thyroid cartilage; here it divides into two so-called roots, one root going to the superior laryngeal, and the other to the vagus nerve. These are generally called roots, though, as the nerve conveys impressions from the heart to the brain, they are, physiologically, really branches. There seem to be also depressor fibres in the vagus itself; but this nerve contains fibres of many kinds, and, among others, some which cause contraction of the vessels and rise of blood-pressure—hence called pressor-fibres. The former seem to act on the vaso-motor system through the

medulla itself, while the latter affect it through a centre in the brain, so that, when the brain is perfect, irritation of the central end of the vagus causes increased contraction of the vessels and raised blood-pressure; but, when the brain is removed or its functions abolished by opium, it causes dilatation of vessels and diminished pressure.

2. When a sensory nerve is irritated, the action of the vaso-motor centre is suspended in the part supplied by the nerve, and in those which immediately adjoin it, so that their vessels become dilated, while at the same time contraction of the vessels in other parts of the body is produced. The blood-pressure is thus increased generally, and produces in the locally dilated vessels a very rapid stream of blood. This fact was first discovered, and its importance in therapeutics indicated, by Ludwig and Lovén.

ACTION OF COUNTERIRRITANTS.—The application of an irritant, whether mechanical, chemical, or thermal, injures the tissues of the part to which it is applied; and what better means of removing the injury and restoring health could be imagined than a copious supply of blood, and the removal of every hindrance to its free flow which contraction of the vessels might present?

Experiments are still wanting to decide how far the vascular dilatation will extend in the neighbourhood of the irritated part when more or less powerful irritants are applied, or which the vessels are (if any) which especially contract, when certain others dilate; so that at present, when we apply a mustard plaster to the chest to relieve bronchitis, we are unable to say with certainty whether the relief is due to a more full flow of blood through the vessels of the bronchi, or to contraction of their lumen diminishing congestion, or (though this is unlikely) to some unknown action independent of the vessels altogether. The experiments of Sinitzin, however (detailed by a recent writer in the *BRITISH MEDICAL JOURNAL*, 1871, p. 535), which show that ulcers of the cornea, eyelids, and lips, occurring after division of the fifth nerve, rapidly heal when dilatation of the vessels of these parts is produced by extirpation of the superior cervical ganglion, render it in the highest degree probable that it is to the increased flow of blood that healing is due. As a general rule, too, the vascular dilatation seems to extend more widely the stronger the irritant applied; and we may thus see how a strong irritant, or one applied over a large extent of surface, may prove beneficial in a deep-seated inflammation when a weak one or one applied to a small surface has no effect.

For convenience of reference, I have put together the causes of alteration in the blood-pressure in the following table.

Causes of Alterations in Blood-pressure and Pulse-rate.

Blood-pressure may be diminished.	By slow action of the heart.	<ul style="list-style-type: none"> Irritation of vagus-roots. Irritation of vagus-fibres? Irritation of vagus-ends in the heart. Paralysis of sympathetic ends in the heart? Weakness of the heart. 	<ul style="list-style-type: none"> Directly, by the action of the drug on them. Indirectly, by increased blood-pressure. Reflexly, by irritation of some other nerve.
Blood-pressure may be increased.	By quick action of heart.	<ul style="list-style-type: none"> Weakness of the heart. Contraction of the pulmonary vessels. Great dilatation of the venous system. 	<ul style="list-style-type: none"> Paralysis of the cardiac ganglia. Paralysis of the cardiac muscular fibres.
Blood-pressure may be increased.	By larger amount of blood at each beat.	<ul style="list-style-type: none"> Paralysis of the vaso-motor centre. Paralysis of the arterial walls. Paralysis of vagus-roots. Paralysis of vagus-fibres. Paralysis of vagus-ends in heart. Stimulation of sympathetic roots. Stimulation of sympathetic fibres? Stimulation of sympathetic ends in heart? Stimulation of the cardiac ganglia. 	<ul style="list-style-type: none"> Direct, by the action of the drug. Reflex, through the depressor. Reflex, through the vagus, when the brain is removed or the animal poisoned by opium. In operations by division of cord or of splanchnics. Directly. Indirectly, by lowered blood-pressure. Directly. [of body.] Indirectly, by causing increased temperature
Blood-pressure may be increased.	By contraction of small arteries.	<ul style="list-style-type: none"> Irritation of vaso-motor centre. Direct irritation of vascular walls. 	<ul style="list-style-type: none"> Direct. Reflex, through the cervical sympathetic. Reflex, through the vagus, when the brain is present and the animal is not narcotised. Reflex, through sensory nerves. In operations by irritation of the peripheral ends of the divided spinal cord or splanchnics.

[To be concluded.]

ON ACCIDENTALLY SPURIOUS OR IMPURE, AND EFFETE OR IMPERFECT, VACCINATION.

By JAMES STARTIN, Esq.,

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VACCINATION, properly performed, being doubtless the greatest boon, in a protective sense, against small-pox that has ever been conferred upon humanity, it is with much reluctance that I proceed to make any statement which may point to accidents attending its inefficient performance upon a few rare and exceptional occasions. Yet, the late instances of what, I fear, must be pronounced vaccino-syphilis, as detailed by my friend Mr. Jonathan Hutchinson and others, render it imperative that, in addition to the few remarks which I made at the late meeting of the Royal Medical and Chirurgical Society, which have been misinterpreted, I should submit to the profession, a little more in detail, my experience attained during the past thirty years at the Hospital for Skin Diseases, Blackfriars, where at least 120,000 registered cases of every variety of cutaneous disease have passed under my care and treatment.

It may be necessary to premise, that opportunities of witnessing the arms of the vaccinated earlier than a month or six weeks after vaccination, have been comparatively rare; consequently, it is chiefly when the secondary or tertiary eruptions become manifest at this or later periods, that the cases have been brought under observation. The question, therefore, whether the supposed vaccine vesicle presented the characteristics of a chancre or not, in the rare cases wherein syphilitic eruptions have been manifested, cannot be decided by my evidence; but in the more frequent occurrence of contagious porrigo and other concomitants of spurious vaccination, the purulent and extended condition of the vaccinated points have been constantly apparent, even for months after vaccination, in addition to ulcers, glandular enlargements, and pustules in the vicinity of the punctures and on other parts of the arm or body of the patients. Spurious or impure vaccination was known and pointed out by Dr. Jenner, as cited by Willan and Bateman. In Bateman's *Synopsis of Cutaneous Disease* (7th edition, page 312 *et seq.*), three varieties of irregular vaccination have been noticed, viz., "pustules, ulcerations, and vesicles of an irregular form." These were referred, both by Dr. Jenner and by Willan and Bateman, to the accidental presence of cutaneous eruptions in the vacciner; for example: "herpes, psoriasis, impetigo, lichen, and, most frequently, certain varieties of porrigo have been present." Dr. Willan also thinks "that the itch and prurigo likewise have the same influence." Baron Alibert, as also stated by Bateman, page 227, mentions "the case of an infant who was inoculated with crustea lactea, and took it." This, of course, was the contagious porrigo of infants. There is, however, no mention of syphilitic infection in any of these authors, although there appears some supposition of it, and also of scrofula. Consequently, such infection, if existing, and if unknown to such authorities, must indeed be rare if, amongst the numbers of infantile eruptions which it has been my lot to witness in this vast metropolis, I can only suppose that I may have seen thirty instances in thirty years.

My experience leads me to believe that by far the most frequent cause of spurious or impure vaccination, is the contagious porrigo of infants, and, indeed, of adults; the next is probably herpes, chiefly seen amongst adults; the next, scabies; the next, also more frequent in adult life, pityriasis versicolor; and, finally, a congenital taint of syphilis in the vacciner, which is probably communicated rather by the blood than by the lymph. This last source is more difficult than any other to determine with the accuracy which the importance of the decision demands—so uncertain is it whether the eruption is the result of a congenital or of an inserted taint. In justice to myself, I must say that I made every possible inquiry when a suspected case of vaccino-syphilis came before me; and if I erred, it was rather a misfortune than a fault.

With regard to the other forms of spurious vaccination above mentioned, there has commonly been no difficulty in tracing them to their source. In illustration, the following examples, occurring in my private practice during the last few weeks, may be cited. As far as possible, all observations will be limited to cases attended or seen in consultation with brother practitioners, to whom anonymous reference only can be made, as the request to publish names has been withheld. Of porrigo, at least half a dozen cases have presented themselves within the last two months, the examples being, for the most part, sequences of secondary or tertiary vaccination.

About six weeks ago, I received a visit from a gentleman residing at Wimbledon, who showed me some pustules on his arm and body, which, he feared, arose from syphilitic vaccination. He stated that

several members of his family, and others in the village, including the wife of his medical man's partner, were also suffering in the same way; and he begged me to proceed forthwith to Wimbledon to meet Mr. —, who kindly informed me that, "two or three weeks ago, with lymph procured from London, he vaccinated several of the family to which I was called, and from them some others in the neighbourhood; and that a pustular eruption had appeared on several of the vaccinated, which had caused considerable alarm." The patients whom I saw in this family consisted of the gentleman and his wife, a daughter about 11 or 12 years of age, and the governess. In every case, the appearances were similar—flat, irregular-shaped pustules, not only on the vaccinated points, but in different parts of the body; and in some places where dressings had been used, appearances of ulceration or suppuration, or thick and somewhat raised scabs, were manifest. In the little girl, some accidental febrile excitement was present; but in the other cases, excepting needless alarm, the external symptoms alone claimed attention.

A nearly identical case in two young ladies, Misses B., aged 8 and 11, residing at Kilburn, I saw on May 9th, in consultation with Mr. Nayler. Pustules, instead of the vesicles, appeared on the ninth or tenth day, attended by other pustules on the vaccinated arms, and also on the face and fingers of the elder young lady, who had also an enlarged gland in the axilla and neck. These children were vaccinated by their usual medical man, who desires to withhold his name.

It should be observed that the above examples, in each instance, were secondary vaccinations, as also is the last now detailed, occurring on the 9th of the current month. Mr. H. B., aged 20, residing at Woodford, applied to me, suffering severely from pustules and boils on many parts of his arms and body which had made their appearance a few days after vaccination, performed six weeks previously. These eruptions had resisted the ordinary treatment, and seemed to increase rather than diminish, preventing his return to college, and, indeed, his enjoyment of life, owing to the supposition that it was an impure disease.

All these cases yielded, in short periods, to the external use of parasitocides, and to tonics consisting of syrup of iodide of iron, in combination with aperients and vegetable bitters.

The next instance to be adduced is a case of scabies in two youths, H. and E. G., aged 16 and 14, residing in the Edgware Road, who were seen May 16th, in consultation with Mr. Nayler and myself. Secondary vaccination was performed upon them and their two sisters two months ago. About the fourth day after the operation, the elder boy broke out in an inflammatory rash, commencing on the vaccinated arm, which Dr. — regarded as the efflorescence that often attends vaccination in youthful subjects. The symptoms, however, increased, and gradually extended over the entire body, whilst the vesicles on the arm assumed an irregular shape, and became quickly purulent, according to the mother's account, who accompanied them. The two brothers habitually slept together; and, about the eighth or ninth day, the rash appeared on the younger boy, who, in a short time, became as severely affected as his brother. Mrs. G., the mother, then put them into separate beds; and Dr. — administered what he deemed appropriate remedies. The symptoms, however, increased, and the youths were brought to me two months after the vaccination, presenting as well marked instances of papular scabies as could be seen. No other members of the family, or any friends, had or have any kind of eruption; nor, on inquiry, does either boy appear to have been away from home, or exposed to any contagion; nor have the younger sisters caught the infection. For the following details, I am indebted to the mother and to the patients themselves, who seem gifted with the quickness and intelligence often found in young London tradesmen. They say that "vaccination was performed with lymph taken from two glass tubes; one served for the two brothers, who took the contagion; and the other, for the two sisters." It is probable, however, from the account above given, that the elder brother alone contracted scabies by the vaccination, and that the younger brother's case was simply contagion, arising from sleeping with his brother. The sequel is soon told. The ordinary sulphur ointment of the Skin Hospital *Pharmacopœia*, and a weak nitric acid lotion containing half a grain of perchloride of mercury to the ounce, with an acidulated aperient, gave the youths, on the first night, the sleep and comfort which they had lost since the advent of the eruption; and, on the 23rd of this month, a week after their first visit, they were well.

The next case which I have to detail is one in which herpes circinatus and pityriasis versicolor—in my experience a contagious disease—followed vaccination. The patient was sent to London by a well-known surgeon of Norwich, and was seen with me by Mr. Nayler on the 24th May last. Mr. S. E., aged 52, informed me that the vaccination performed a month ago was the third during his life. He stated that within a few days of the punctures being made his arm became considerably

inflamed, and that the vaccination did not seem to take the usual effect. Much inflammation, swelling, and irritation, occurred, and a rash appeared around and upon the part, which festered and became sore and scabby. The pityriasis was mixed up with the herpes, and soon extended to the neck and chest, and thence to the abdomen and thighs, and even to the sole of the left foot, where there had long existed a small patch of psoriasis. The irritation attending these eruptions had, doubtless, caused the patient to carry them from place to place with his fingers, and thus produce the extension of the complaint. The patient was in good average health for a man of his age; the constant irritation constituting the chief feature of his ailment. Parasitocides externally and magnesian aperients, with small doses of colchicum to restrain the irritation, and sulphur vapour baths, were prescribed; and I have little doubt that, at our next interview, the report will be favourable.

The last two cases which I have to report, though fortunately the most rare, are also the most important, as they are undoubted instances of vaccino-syphilis, in all probability communicated from the same vaccinifer. These two patients were sent, or rather brought, to me at an interval of eighteen days by two surgeons in a partnership firm, enjoying an extensive local and county practice. In these cases, as in the former, I am precluded from mentioning names, as explained by the following note, which I take the liberty of transcribing in consequence of the importance of the subject.

"May 25th, 1871.

"Dear Sir,—I have seen Mr. — since his return from London, and he has mentioned your request about my name appearing in connexion with the case of Mr. F—. This patient is so very particular on many points, that I must request you not to put my name, nor the address of either patient or self: the initials, without address, I have no objection to.

"You will see by my note to Mr. Nayler, that I do not think it positive who was the vaccinifer.—Believe me, dear sir, your truly,

"J. Startin, Esq."

"H. C.

Mr. F., a gentleman, unmarried, aged 46, who until the last month, when he was vaccinated for the second time, had enjoyed uninterrupted health, never having contracted syphilis or gonorrhœa, came to Savile Row, May 4th, 1871, with a message from his surgeon, who could not accompany him on that day, and was seen by myself and Mr. Nayler seven weeks after vaccination. A severe tubercular specific eruption covered very generally and closely his entire body, from the crown of his head to the palms of his hands and soles of his feet; he had also raised tubercular spots on his arm on the sites of the vaccination. Mr. F. stated that he felt very unwell the day after his vaccination, with general *malaise* and pains in his limbs; on the third day these symptoms increased, and the punctures became painful; and, as he was no better on the fourth day, he took a warm bath, and, the arm being inflamed and painful, he washed off the vaccination in the bath. He continued, however, to get worse, and the eruption increased from day to day until it presented the state described. He had no sore-throat, nor were the glands in the axilla or elsewhere enlarged. His pulse was quick, and he was feverish and miserable in mind and body. The treatment consisted of the internal administration, three times a day, of the iodides and bromides of potash and mercury, and the inunction, night and morning, of a mild mercurial ointment containing one grain of levigated red precipitate and five grains of strong mercurial ointment to each drachm of scented lard. The diet was carefully regulated, and the treatment energetically carried out by the patient for eight days, until May 12th, when I received Mr. F.'s second visit. He reported that all the symptoms had been gradually waning; the gums were becoming tender; otherwise Mr. F.'s condition was in every way improved, consequently a further perseverance was recommended. He made a third visit on May 12th, attended by his surgeon, Mr. C. In consultation we suggested that, as ptialism had commenced, Mr. F. should diminish the internal and external use of mercury, but in other respects proceed as before, as convalescence had evidently set in. On May 23rd, a fourth visit from our patient occurred, when continued amendment was manifest, and the mercurials were all but discontinued, vegetable bitters and liquid extract of sarsaparilla being substituted. By passing the hand over any portion of the eruption at this time, it was found that all tubercular manifestations had disappeared, the stains only of the eruption remaining, so that the patient may be considered well.

Mr. H., the partner of Mr. C., brought a second case of vaccino-syphilis in a patient who had probably been vaccinated from the same vaccinifer as Mr. F.

Miss N., aged 11, the daughter of healthy parents, was vaccinated some weeks ago for the second time. The vesicles ran an irregular course; there was much swelling and inflammation of the arm, and a febrile state of the system. A pustular eruption appeared on the face, and pustular ophthalmia with considerable conjunctivitis, but not iritis.

There were also tonsillitis and swelling of the parotid and submaxillary glands, and upon the arm vaccinated some tubercular spots and copper-coloured areolæ. These symptoms continued, with occasional variations, until my consultation with Mr. H. As the case was referrible to the same origin as that of Mr. F., a modification of the same treatment, adapted to the age of the young lady, was employed, in addition to the local application of iodine to the enlarged glands, and a solution of nitrate of silver (one grain to the ounce of distilled water) to the pustular ophthalmia—with what result remains to be proved.

With regard to imperfect or effete vaccination, but few words need be added, as these cases must have occurred to every one, both in primary and secondary vaccination, from the vaccination not taking; and the occurrence has been amply commented upon by Dr. Jenner himself (*Inquiry into the Causes and Effects of the Variolæ Vaccinæ*); by Dr. Willan (*Treatise on Vaccination*); by Dr. Bateman (*Synopsis of Cutaneous Diseases*, article Vaccinia); Dr. Plumbe (*The Value of Vaccination*); and by several other authors. A single case will, therefore, be cited. Within the last month a popular member of Parliament, representing one of the most important metropolitan boroughs, consulted me on his case of imperfect or effete vaccination, which, as usually observed, followed secondary vaccination by one of his medical constituents a few weeks previously. Mr. T. was not in robust health, owing to the nightly fatigue which his parliamentary duties entailed upon him; consequently the punctures inflamed and suppurated, the inflammation extending to the upper part of the arm and the glands beneath; the punctures then assumed the appearance of boils on an irregularly shaped and extending base, and were very painful, and interfered with the patient's rest and comfort. As Mr. T. had been prescribed tonics and alteratives by his surgeon, I did not alter the internal treatment, but applied a piece of perforated opium-plaster to the diseased spots, and directed the parts exposed through the openings in the plaster to be smeared with weak red precipitate ointment, and a fold of linen, wetted with weak spirit or carbolic acid lotion, to be applied once or twice a day and retained with a bandage. It can scarcely be necessary to remark after what has been stated that these accidents can be, and indeed are, very constantly avoided by strict attention to the directions inculcated by the illustrious Jenner and his followers down to the present time, and which this is not the place or time to recapitulate. I would, therefore, conclude these remarks by suggesting a modification of a recommendation of Mr. Bryce (*Practical Observations on the Inoculation of Cow-pox*); viz., "the test of a double inoculation at the interval of five or six days", when, should the vaccine vesicle run an abnormal or irregular course after primary vaccination, the irregular vesicle should be destroyed by means of carbolic acid and a camel's hair-brush, and a new vaccination substituted. By this there would be secured to the community the inestimable blessing, of which cavillers would deprive them in consequence of an accidental faulty carrying out of Jenner's discovery.

NOTE ON THE SUMMER TEMPERATURE OF SOME BATHS.

By JOHN MACPIERSON, M.D.

THE observations of Dr. J. Henry Bennet in the BRITISH MEDICAL JOURNAL are very just in what he says respecting the temperature of many continental watering-places, that in many, even of some elevation, the temperature is too high during the summer months for consumptive patients.

Elevation of site does not alone give low temperature or ensure coolness. A familiar example of this is Munich, which lies 1600 feet above the sea, and which, though cold in winter, is hot enough in summer. The following table gives the height above the sea and the mean summer temperature of a few baths, and shows that summer temperature often depends on other causes besides mere elevation and latitude. Thus, Schwalbach, though 600 feet higher than Kreutznach, is more than one degree warmer. Baden, in Switzerland, though 150 feet higher, is four degrees warmer than Ischl. Rippoldsau, in the Black Forest, though 1500 feet above Kreutznach, is no cooler than it.

	Elevation:—Feet.			Mean Summer Temperature.
Kreutznach.....	330 ...	...	...	64.3
Schwalbach	900 ...	...	...	65.5
Schinnach.....	1080 ...	...	...	70.1
Ischl	1500 ...	...	...	65
Baden.....	1650 ...	...	...	69
Rippoldsau.....	1850 ...	...	...	64.1
Gastein	3400 ...	...	...	57.8

The temperature of those places may, for English readers, be compared with Torquay, 60 deg. to 61 deg.; or Hastings, 61.4 deg. on the

southern coast; or with a place in the interior, such as Cheltenham, 60.8 deg. But English patients of other classes than consumptives are in the habit of exposing themselves to high temperatures, and are apt to neglect the best season for baths. In former days, most baths were visited in spring and at the fall, as the Americans still call it, or in the early summer and late autumn months. But the English crowd all their visits into the hottest season of the year. They rush to foreign or to home baths in one mass at the end of July or beginning of August. At that period of the year the sun is very powerful; and most of the Pyrenean and a great many German baths, being situated in narrow gorges or in small basins, become heated up intensely, and may prove injurious in cases in which the influence of high temperature should be avoided.

Ems in particular, which is the German spa most resorted to for pulmonary affections, becomes especially warm and oppressive. Many people, including the Germans, who need scarcely be in these days characterised as stolid in any of their practices, have begun to think that it may be well to avoid these high temperatures, and have begun of late years to seek in summer the higher lying baths, or even to be satisfied with a residence in places of considerable elevation above the plains. The balance of evidence seems to show that, for consumptive patients in particular, an elevation of from 3000 to 4000 feet in Switzerland, and of course less in more northern regions, is quite sufficient. Cases of threatened consumption certainly often derive much benefit from summer visits to such heights, especially along with the judicious use of a milk diet.

How well aware the Germans are of the value of visits to such places in improving the general health—*Sommer Frische*, as they call them (and they are equivalent to the Hill Stations to which we have now for a long period resorted in India with a wonderful degree of refreshment)—is evident from the long classified list of elevated health-resorts in different parts of Germany to be found in Reichert's elaborate report in Schmidt's *Fahrbuch* for last year.

English readers may find an account of some of them in Dr. Theodore Williams's book on the *Climate of the South of France*, and a more extended list of them in an article in the *Quarterly Review* for July 1870, just before the war broke out. It is well worthy of consideration, whether many a patient may not gain more by the pure air he will breathe, and the quiet life he will lead at such places, especially such as it has not become the rage of the English to frequent, than by a hurried visit to a fashionable bath, where, amidst its amusements and dissipations, all regular treatment is often forgotten, and the waters of the spring do not obtain a fair trial.

NOTES ON MEDICINE AND SURGERY.

By P. CRAMPTON SMYLY, M.D., F.R.C.S.I., L.K.Q.C.P.I.,
Surgeon to the Meath Hospital.

OVARIOTOMY.

CASE I.—Miss S., aged 40. The disease was first observed two years before she came under observation. Fluctuation was distinct. The uterus was healthy. The tumour was removed, and found to be bilocular, without any solid matter. The pedicle was long, and was secured by Mr. Spencer Wells's clamp. The sac contained seventeen pints and a half of a thick brown fluid. The patient has made a complete recovery, and is now in good health, five years after the operation.

Case II.—Mrs. F., aged 32, fair, with light red hair, well made, married ten years, but had never conceived. Menstruation was regular, but scanty. About fourteen years ago, she suffered from irritation of the bladder, and complained of a burning feel low down at the left side of the abdomen. After she was married, she consulted a physician, who told her that she had an enlarged womb. Five years before she came under observation, the abdomen began to enlarge, and the irritation of the bladder completely subsided. For four years, the swelling gradually increased; but in the last six months, it had more than doubled its size. The wave, on percussion, was distinctly perceptible from side to side; no creaking sounds were detected with the stethoscope. The uterus was healthy.

The tumour was removed on October 8th, 1868. Just as the first incision was about to be made, violent vomiting set in, and the operation was postponed to the afternoon, when it was performed. On the cannula being plunged into the tumour, about seven pints of dark clear fluid escaped. The lower part of the abdomen became flaccid, but the upper remained unchanged. The cutting portion of the cannula was again protruded and pushed through the septum. The rest of the fluid then escaped, and the cyst was withdrawn without any difficulty, and, the pedicle being long, was secured with the clamp. The wound was

closed with carbolised silk-sutures. The whole quantity of fluid removed was thirty pints. On the fifth day, the sutures were removed; there was not a drop of suppuration. The clamp was removed on the fourth day. On October 31st, she left town well. She is now, more than two and a half years after the operation, in robust health.

CASE III.—Mrs. P., aged about 45, came from the country. The tumour had existed for a long time. She had repeated attacks of inflammation. The tumour was so large that she could not rest in bed, and the only position in which she could sleep was sitting on the floor on a pillow, leaning forward with her arms on the seat of a chair. She was of dark sallow complexion, with black hair, and very much emaciated. The tumour was evidently adherent over the whole anterior surface. There was distinct creaking, and a very large quantity of solid matter. The case being unpromising, her condition and the probabilities of the operation being explained to her, she elected to have the tumour removed.

She was completely chloroformed, and the usual incisions were made down to the cyst, which was found adherent—partly by new, partly by old adhesions. These were easily separated. The trochar was then plunged in, and the tumour partially emptied, when it was found that the greater omentum was spread out over the whole upper portion of the cyst, and was adherent in many places to it. It was carefully separated, and all bleeding points were carefully secured with fine silk ligatures. There were no adhesions behind. The pedicle was secured with the clamp, and the wound closed with sutures. She went on well up to the third day, when peritonitis set in, with darting pains through the abdomen. However, she took plenty of nourishment, though she frequently vomited. On the eighth day, she got a sudden start, a friend unexpectedly coming from the country, and entering her room without notice. She sank rapidly, and died on the ninth day. At the necropsy, there was found to be extensive peritoneal effusion, but no bleeding whatever into the cavity.

CASE IV.—Mrs. —, aged 35, came to town, as she considered, about the eighth month, to be confined in Dublin. Her medical attendant visited her occasionally until she had gone two months past her time, when Dr. Churchill saw her, and discovered an ovarian tumour of large size. She was nearly twice as large as a woman at her full time. After several examinations and consultations, ovariectomy was decided on. The steps of the operation were most curiously like the last; there were numerous adhesions, and the omentum was spread out over the tumour, and adherent. The pedicle being very short, the coil clamp was used, and answered very well. She lived to the fourth day, and then sank from diffuse peritonitis. The *post mortem* examination showed extensive peritoneal effusion, but no bleeding.

UTERINE TUMOUR OBSTRUCTING DELIVERY.*

By HENRY J. YELD, M.D.,
Surgeon to the Sunderland Infirmary.

THE history of complicated cases occurring in midwifery practice is always of interest to practitioners of the obstetric art. When the case terminates in the recovery of the patient, the medical attendant narrates the facts of the case with a certain amount of self-pride and gratification at his success. At the same time, the accounts of cases ending fatally are of equal, if not greater, interest, although there is not the same amount of satisfaction in relating them. The case, the particulars of which I am about to narrate, belongs to the latter class; and it is only on account of its presenting peculiar features that I bring it before you this evening.

On Easter Tuesday afternoon, I was sent for to see Mrs. D., aged 37, who was in labour with her ninth child. I had previously attended her in several of her confinements, all of which were tedious: the last child was still-born, it having been dead some days previous to birth. On the present occasion, I found the funis and left foot presenting. The liquor amnii had escaped, and the uterus was firmly contracted round the body of the child. The pains were only slight and at long intervals. I found it impossible to reach the other foot, and a considerable amount of traction on the foot presenting, had no sensible effect upon the child. Consequently I considered it advisable to leave nature to herself, in the hope that, in a few hours, uterine action would set in and the labour be terminated. The patient had very little pain during Tuesday night; and on Wednesday morning, finding that no progress had been made, I gave her a good dose of ergot. This had the effect of bringing on the pains, which, however, produced little or no effect upon the child. The patient seemed to be becoming exhausted, so I determined to obtain assistance, administer chloroform, and deliver. Mr. Welford was kind enough

* Read before the Sunderland Medico-Chirurgical Society.

to go with me. At this time the foot was outside the vulva, and quite black and œdematous. Chloroform was given; and, after a little difficulty, owing to the narrowness of the brim of the pelvis, I reached the other foot and brought it down. Even then we had great difficulty in bringing the child away, and it was only with an immense amount of traction, exerted by Mr. Welford and myself at the same time, that the delivery was completed. On examining the child, we found it to be hydrocephalic, the head being very large; the left leg from the hip downwards was perfectly black and œdematous. The funis had given way at the umbilicus, and the child had been dead two or three days.

The delivery of the child having been completed, the next step was the removal of the placenta. Mr. Welford examined, and found a large mass firmly adherent to the walls of the uterus. This was thought to be the placenta, and we at once proceeded to remove it. This was not accomplished, however, without very considerable difficulty and patient perseverance; in fact, so difficult was it that, when we had all but entirely detached the mass, our hands became completely powerless, and Mr. Hopgood was sent for. On his arrival, I managed to introduce a blunt hook into the tumour, and so kept up a certain amount of traction, whilst he broke down the remaining adhesions. The mass came away, when it was found to be a fibrous tumour, weighing four pounds and a half, and nine inches in circumference. The placenta was found attached immediately behind where the tumour had rested. There was no guide to the placenta previously to this, as the funis was decayed and broke down under the fingers. Although there was no hæmorrhage, there was little chance of the patient recovering after such a labour. She gradually sank, and died two hours after delivery.

In reviewing this case, there are a few points worthy of notice. The first is the peculiarity of the presentation; namely, the foot and the funis in almost its entire length. The gangrenous and œdematous state of the foot and leg was to be accounted for by the fact that the tumour, by the uterine action, was pressed firmly against the back and buttocks of the child, and thus strangulated the limb against the brim of the pelvis. The tumour itself was attached to more than one half of the uterus from the neck to the fundus; the attachment at the two extremities being excessively strong, that at the fundus being almost ligamentous. Hence the extreme difficulty with which the child was extracted, the hydrocephalic head only making the case more complex. The position of the placenta, hidden as it was behind the tumour, led to the belief that the tumour itself was the adherent placenta which had undergone some organic change. The fallacy of this was only proved by the discovery of the placenta after the removal of the tumour.

The last remark which I would make in reference to this case is the possibility of removing a fibrous tumour of the uterus by breaking down its attachments with the fingers. The task was difficult to us, as I have already said; but it was nevertheless completed without any hæmorrhage ensuing, and, I should say, with little if any injury to the uterine walls.

Such is the history of this interesting case, one similar to which has not, I believe, been recorded in the annals of midwifery practice.

SUBCUTANEOUS INJECTION OF ERGOTINE IN HÆMOPTYSIS.

By WM. ALLAN JAMIESON, M.B., Berwick-on-Tweed.

IN the July number of the *Edinburgh Medical Journal* for last year, Dr. George W. Balfour recommended the hypodermic injection of ergotine in hæmorrhages of various kinds; and I determined to try it in the next case of hæmoptysis which occurred in my practice. The result in the following is, to say the least, remarkable.

A. B., aged 41, a tobacco-pipe maker, a fresh-looking man, and not intemperate, fifteen years ago, about the New-year, fell asleep when rather tipsy, out of doors, one wet night. He caught cold then, and had a cough ever since, which had not, however, interfered with his pursuit of his trade. On November 20th, 1870, he had to walk quickly up a steep hill, and then stood, when overheated, exposed to more or less of a draught. On the morning of the 21st, while at work, and not using any unusual exertion, he brought up a mouthful of florid blood. This recurred at intervals during the day, and in the evening he called for me. I did not then strip him for examination, as he was somewhat overheated, but at once injected five grains of ergotine (procured from Messrs. T. and H. Smith of Edinburgh), dissolved in ten minims of distilled water, into the cellular tissue of the arm.

On November 22nd, no more florid blood had come up after the injection, only one or two dark coagula. At the base of the left lung, both anteriorly and posteriorly, there was fine crepitation audible at

the close of inspiration, but no dulness on percussion. He felt well and returned to work, an aperient pill being given to avoid constipation. On the 23rd, there was slight return of the hæmoptysis; and on the 24th, it was again considerable. I therefore repeated the injection of ergotine, enjoining strict rest in bed. The result of the injection was the same: the expectoration of florid blood immediately ceased, only a dark clot or two coming away. Rest was continued till December 1st, when he resumed his employment, quite well, with the exception of the moist sounds at the left base.

He continued well during the severe winter of 1870-71, taking, from time to time, a little cod-liver oil, until May 7th, 1871, when he came to me in great trepidation, the hæmoptysis having recurred. While in my house, he spat up some bright blood; and I therefore had recourse again to the ergotine. The expectoration of bright blood at once ceased, and a tickling cough which preceded it disappeared also. Next day, I found him well, only one or two brownish clots having come up. The crepitation was still audible, though less clearly at the left base; and though there was no appreciable dulness, there was slight flattening of the chest-wall. I ought to have mentioned that I examined the expectoration in November, in the manner recommended by Dr. Fenwick, without finding any fragments of elastic tissue.

Should the result of this case be borne out by further experience, we shall have to thank Dr. Balfour for introducing a remedial agent sadly wanted, an efficient and rapidly acting styptic in hæmoptysis. No local effect, save slight irritation of the skin, lasting a few hours; and no influence on the pulse, which remained at 72, resulted from the injection.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE XV.—*Wednesday, March 22nd.*

THE Artiodactyle Ungulata have many more existing genera than the Perissodactyles; there are also numerous fossil species. At first sight, the animals of this suborder vary much. The ruminating animals were formerly placed in a separate order; but, as they are closely allied in structure to many of the Artiodactyles, and are united to these by extinct forms, they are now regarded as forming only a portion of this suborder.

The Artiodactyles are divided into five groups: Anoplotherina, Suina, Camelina, Tragulina, and Pecora. The latter three constitute the former order Ruminantia.

The group Anoplotherina includes many animals all now extinct, presenting various resemblances to members of the other groups. The Anoplotherium had the full typical number of forty-four teeth; and these were continuous in each jaw, without any interval, and nearly of the same height throughout. There were three incisors, a small canine, four præmolars, and three true molars, larger and more complex than the molars. In the lower jaw, the last molar was large and had three lobes; the other molars had two lobes.

The dentition of Suina is illustrated in the Pig, in which the teeth are somewhat modified from those of the wild Boar. The formula is $i \frac{3}{3}, c \frac{1}{1}, p \frac{4}{4}, m \frac{3}{3} = 44$. All the teeth are functionally developed; but there are differences in size. The upper incisors are short, the third being smaller than the others; the middle ones do not meet at the middle line of the jaw, but touch at their apices, and each has a lobe on the inner side of the cutting edge. The second incisor is simple, flat, and marked with vertical indentations. The lower incisors are long, narrow, and project forward; the outer ones are the shortest, the others being nearly equal in length. The canines are large, especially in the male. The upper canines in the Boar pass outwards, upwards, and then inwards, forming the tusks. The lower canines project more directly upwards; and their posterior surface rubs against the anterior surface of the upper teeth. The enamel, in the lower canines, is confined to the posterior surface of the tooth; in the upper canines, it covers the tip, and from this three longitudinal tracts proceed down the tooth. The canines in the Boar have persistent pulps; and the upper ones, if not worn down, may grow till a circle is formed. The molar teeth form in each jaw two nearly straight and parallel rows. In the upper jaw, they lie together; in the lower, the first præmolar is separated by an interval from the others. The teeth increase in size from before backwards. The præmolars are compressed from side to side, and thick in the antero-posterior direction. Before they are worn down, they present a remarkable pattern. The first and second upper

præmolars have each four principal rounded conical cusps, each of which is divided into a number of secondary cusps, besides which there are a number of small cusps on the cingulum. The last true molar has a large heel projecting backwards. The last præmolar has two cusps on the outer and one on the inner side; the second is very like it, but a little narrower; the first has a large posterior lobe—a character which runs through the group. The milk-teeth are complete and functional, and correspond in character to the permanent set.

In the Babioussa, one of the upper incisors, apparently the outer one, is absent. The upper canines are not developed in the female; in the male, they perforate the lip, and pass upwards and backwards in a curved direction so as to reach the top of the skull, and sometimes their tips perforate it. The lower canines curve outwards and much backwards. There is no enamel on the canines, which have persistent pulps. The two anterior præmolars are wanting; the other teeth of the molar series are somewhat more simple than in the Pig, presenting fewer tubercles.

The Peccari (Dicotyles) has only two incisors on each side in the upper jaw, the full number being present in the lower. The canines are large; the upper one turns downwards, and the lower upwards. Both are surrounded with enamel. There are three præmolars and three true molars, rather small and simple. The true molars have the crown square, with four main cusps, accessory cusps, and a cingulum.

The dentition of the African Wart-hog (Phacochoerus) presents a remarkable modification. The incisors are much reduced, and in one species are absent or rudimentary. The canines are much developed; the upper ones lose their enamel; in the lower, the enamel is arranged as in the Pig. The upper jaw has at first three præmolars and three true molars. The first and second præmolars drop out; then the first true molar is lost, and the gap left by it is closed in. After a time, the third præmolar is shed, and at length only the last molar remains; the animal thus having its dentition reduced to the four canines and the four large molars. The last molar is greatly elongated from before backwards, and is made up of a number (it may be as many as twenty-five) of columns of dentine arranged in three rows, each coated with enamel, and held together by cement. As the tooth wears down, little islands of dentine, surrounded by enamel and cement, are seen on the grinding surface.

The Hippopotamus has two incisors on each side of each jaw; those in the upper jaw are directed downwards, while the lower ones are horizontal. The central lower incisors are large; the outer are much smaller. The lower incisors have enamel on the tips only; the upper, on the outer side. The canines are very large, especially the lower; the upper and lower wear against each other, and have a partial covering of enamel. The front part of the mouth in the Hippopotamus is very wide. There are four præmolars and three true molars; but the first præmolar is often only rudimentary, and generally disappears. The molars present two main cusps, anterior and posterior, divided by a median cleft, and marked at the side by grooves. When the top of the tooth is worn off, there is left on each cusp a sort of double trefoil pattern of dentine, surrounded by enamel. After a time, the middle groove becomes obliterated, and a quatrefoil pattern is produced. Finally, the central dentine tracts of the main cusps become united, a simple line of enamel surrounding the whole.

The whole of the animals constituting the group called Pecora closely resemble one another in the character of their teeth. They are divided into the Bovidae, including the Oxen, Sheep, Goats, and Antelopes; the Camelopardalidae, constituted by the Giraffe alone; and the Cervidae, or the Deer.

The Bovidae have all the following dental formula in the adult state: $i \frac{0}{3}, c \frac{0}{1}, p \frac{3}{3}, m \frac{3}{3} = 32$. The anterior portion of the upper jaw, in which incisor teeth are situated in most mammals, is covered by a callos pad of buccal mucous membrane. Beneath this, in fœtuses of some species, rudimentary germs of teeth were discovered by Goodsir; but these do not seem to advance as far as the calcified stage. In the front of the lower jaw are eight teeth, with broad cutting crowns, arranged in a somewhat radiating or fan-like manner. Although they are all similar in characters, and contiguous to each other, the outer teeth of this group are commonly considered as representing the lower canines of other mammals. Behind these is a considerable toothless interval. The molar series consists of six teeth above and below, all in contact, three being præmolars, and three true molars; the latter are larger and more complex than the former, being formed of two lobes, anterior and posterior, each with a deep crescentic inflection of enamel (with the concavity turned outwards in the upper, and inwards in the lower teeth). The pattern of the grinding surface of these teeth alters much with wear. The third lower molar has an additional small posterior lobe. As the teeth of the lower jaw are all placed half a tooth in front of those of the upper jaw, when the mouth is shut this

additional lobe brings the two series level at the posterior end. The functional milk-teeth are $i \frac{0}{3}, c \frac{0}{1}, m \frac{3}{3} = 20$. The lower incisors and canines resemble those of the adult, but are somewhat smaller. The third lower molar has a large posterior lobe.

Besides the principal lobes of the molar teeth, there are often small accessory lobes of columnar form, united by cementum to the rest of the tooth; the position and size of these are useful characters, by which some of the genera of Antelopes are distinguished.

In the Cervidae, the teeth generally resemble those of the Bovidae; but the crowns of the molars are shorter from above downwards, have a much thinner covering of cementum, and the roots are more developed. There are often, but not always, small canines in the upper jaw, sometimes developed in both sexes, as in the Red Deer, but more often in the male only. In a few genera, notably the Musk Deer of Central Asia, these canines are developed to an extraordinary extent, as will be more particularly described in the next lecture.

THERAPEUTIC MEMORANDA.

NOTE ON THE USE OF ASHANTEE BARK IN CHRONIC DYSENTERY.

H. T., aged 33, single, was admitted January 17th, 1871. She had been ill with dysentery since last June, having contracted the disease at Leeds. She became worse, and came to London. She used to have eight or ten stools a day, besides several at night, and the pain was very severe. She was treated as an out-patient at St. Mary's Hospital by Dr. Cheadle, and became very much better, so that she had only two or three stools a day, and ceased to pass blood and slime, and to have pain in the abdomen. She was, however, very weak and emaciated; suffered much from pain in the legs, preventing her from sleeping; and exhibited some purpuric spots on the left leg, and a few cachectic superficial sores, or quasi-pustules, on both legs. The pulse was 105, weak; the temperature 100.7. She had injured her left hand by a fall, and there was some chronic inflammation about the left ankle and head of the tibia. Various remedies were used, including a daily opiate enema; but she had about two loose stools daily, though lying in bed, and the bed-pan was always at her side when I made my visit. On February 15th, I ordered her to take four times a day a pill containing four grains of tannin and a fourth of a grain of opium. Two days later, she was much worse: the bowels were acting more frequently—seven times in one night. I then gave five grains of ipecacuanha and half a grain of opium in a pill three times a day. This caused no sickness; and on the 22nd the stools were again two a day. On the 25th, I commenced giving half a drachm of tincture of Ashantee bark in half an ounce of mucilage three times a day. The stools speedily became solid, and on March 11th she was having only one in twenty-four hours. On the 21st, she went out cured of the dysentery; and up to the last report (May 20) remained free from any recurrence.

Last year, I published some cases of cirrhosis of the lung, in one of which this drug seemed to be of material use in checking the profuse secretion of muco-pus. I publish this note simply to draw attention to the remedy, as one which seems likely to be serviceable, and not, of course, to claim for it any advantage as yet over others. It is noteworthy that, though the bark contains a large amount of tannin, its action was very different from that of this educt, though combined with opium. The same remark has been made before in like cases. The bark, I may state, was sent over by Mr. Thomas Hughes, of Cape Coast, Africa, and may probably, after a time, be obtained from Mr. Shaw, 85, Edgware Road. At present the stock is almost exhausted.

C. HANDFIELD JONES, M.B. Cantab., F.R.S.,
Physician to St. Mary's Hospital.

DECLARATION BY BARON LIEBIG.—This eminent *savant* states that several articles have been sold and manufactured, among others by M. J. P. Liebe, apothecary at Dresden, under the title of Liebig's unfermented extract of malt, Liebig's extract of malt with iron, iodine, quinine, iodide of iron, etc.; Liebig's condensed milk; and Liebig's food for infants. Professor von Liebig desires it to be known that he never gave his consent to the use of his name in any of these articles, nor does he know anything about their real value, his name having been used without his consent and entirely against his will. The only dietetic preparation to which the Professor's name is attached with his full knowledge is the extract of meat prepared at Fray-Bentos; and the strict condition has been imposed upon the company, that no extract of meat shall be delivered to the trade unless it have been previously tested and approved of by Dr. M. von Pettenkofer.—*Journal für Prakt. Chemie*, No. 4, 1871; *Chemical News*, May 5.

THE Subscriptions to the Association for the year 1871 became due in advance on January 1st. All which are not already paid, should be forwarded to the General Secretary, Mr. T. Watkin Williams, 13, New Hall Street, Birmingham; or to the Secretaries of Branches.

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SATURDAY, JUNE 3RD, 1871.

THE BRITISH MEDICAL ASSOCIATION.

IT would be difficult to suppose that the affairs of a great association such as this should always proceed with a smoothness and efficiency which leave room for neither amendment nor suggestion. No doubt, therefore, our associates, no less than ourselves, when they chance to see the heading "British Medical Association" in any of our medical contemporaries, turn with interest to that page to see what advice medical journalists have to bestow or what censure to suggest; and it is no small advantage to our Association that, having a JOURNAL of its own in which to give expression to its views, and force and cohesion to its work and organisation, it has such frequent opportunities afforded by other periodicals to "see ourselves as others see us." Nor is there any reason to complain of an excess of flattery from the mirrors thus held up. The *Lancet* was lately equally indignant and vituperative at "British Medical Assurance," when the Medical Reform Committee of the Association firmly pursued the course of policy marked out first by the general meetings of Dublin, Leeds, London, and Newcastle, and at British Medical quiescence when the Committee declined a parliamentary strife with Mr. Lush and Mr. Brady. It has repeatedly declaimed against the compact organisation which confers an excess of power on a provincial "junta," who wield at pleasure all the influence of this great body. The *Medical Times and Gazette* is now alarmed, on the other hand, by discovering evident traces of "a great want of cohesion and stability," and "a Metropolitan Branch which undoubtedly overshadows and leads the rest of the Association." The two sets of complaints might seem to counterbalance each other. But a very superficial examination suffices to show that both are alike unfounded, and that neither hits the mark. Nothing but the complacency of an extreme Cockneyism, and a singularly limited view of the proceedings of the Association, could assign to the Metropolitan Counties Branch that overshadowing pre-eminence which the *Medical Times and Gazette* claims for it. It is difficult to imagine, and would certainly be impossible to prove, any grounds for such a statement. There perhaps was never, at any period in the history of the British Medical Association, a time when the Metropolitan Counties Branch, or its representatives, took so little part in the government of the Association, or in the determination of its policy, as they do at this moment. If we turn to all the most important meetings of the Committee of Council or of the Medical Reform Committee, it will be seen that those meetings have included but two, or at most three, members of that Branch. The Committee of Council includes, indeed, but three or four members of the Metropolitan Counties Branch—one only of whom, Dr. Stewart, is its official representative, as secretary. At the last meeting of the Committee of Council, held in London on the 3rd and 4th of this month, the only representative of the Branch present was the Secretary, and then only during a brief part of the time. If London was selected as the place of meeting, it was from motives of convenience: the representatives who decided the course to be taken were from York, Newcastle, Leeds, Bath, Manchester, Liverpool, and other great provincial centres. So, on the Medical Reform Committee, the leading spirits who have shaped the policy of the Association, are Husband of York, Waters of Chester, Haughton of Dublin, Southam of Manchester, Davey of Bristol, Chadwick of Leeds, Charlton of Newcastle, Bennett of Edinburgh, Falconer of Bath, and such men. The two London members of that Committee, Dr. A. P. Stewart, and Mr. Michael, have given

their aid, which vicinity to the Parliament makes specially important and useful; but they will be the first to state that they have rather loyally followed and aided than led the movement.

If those writers who discourse so eloquently concerning the constitution of the governing body of the Association, were to take the trouble to master the facts, they would certainly blush to find the extraordinary errors into which they fall, and the singular absurdity of their comparisons. One of them describes the Committee of Council as a self-elected junta, and the other compares the constitution of the Association to that of the College of Surgeons. We ask of them to explain on what single point of resemblance they base the analogies which help them to a little facile censure. In the first place, every member of the Branches of the Association, without exception, has an equal part in the election both of the Council of his own Branch and of the General Council of the Association. There are no privileged classes; the whole governing body of Branches and of the Association generally is subject to annual election. The constitution of the Central Committee or Committee of Council is as democratic and as well arranged to secure a complete control of its constitution by local members of Branches, as any body with which we are acquainted. It is constituted, first, of the President of the Association, the President-elect, the President of Council, the Treasurer, and the past Presidents of the whole Association; secondly, of one Secretary of each Branch; thirdly, of ten members elected at the annual meeting of the General Council. It will be observed, then, that the presidents are men of local eminence, selected in every case by the common voice of the profession in their respective neighbourhoods as the most eminently representative persons, and best qualified to represent the local profession at the successive great annual meetings of the Association; that the second class are the annually elected honorary secretaries of each Branch, selected by the members of the Branch, for energy, aptitude, or public spirit, and best qualified of all men to report the feelings and wishes of the profession in the localities represented by their respective branches; and that the third class are spontaneously selected by the General Council for special fitness for the office, the General Council itself being annually elected by the Branches, and each Branch contributing a number of representatives in direct proportion to its own numbers. Will those who criticise this constitution, tell us in what it resembles a self-elected junta; how it imitates the defects of any given corporation, and what improvements they suggest? To our—possibly partial—view, this constitution seems very broad, utterly democratic, as in such an Association of coequals it should be, and thoroughly localised; not wanting in cohesion on the one hand, or in the elements of vigorous renewal and full representative breadth on the other. But, having stated what the government and constitution really are, we shall be glad to hear from our friendly critics what suggestions they have to offer. So much as to government and cohesion; as to stability, an Association which has been in existence thirty-eight years, and has during the last six years rapidly spread over the three kingdoms at a rate which doubles its numbers, has very little to fear. But to these points we shall have occasion to recur. The British Medical Association has everything to gain by a full, fair, and open discussion of its constitution, aims, and acts. We have challenged the initial facts and analogies on which our critics have relied in one department of their argument. Let us see how they can defend them. Next week we will deal with another series of their statements, which will equally repay analysis.

THE REGULATION OF PHARMACY.

THE profession is aware, from what we have previously written, that the Council of the Pharmaceutical Society, yielding recently to the pressure of the trade, deliberately broke faith with the Government and the nation by avoiding the responsibility imposed on them by the Pharmacy Bill, of making regulations for the prevention of accidental poison in the storing and dispensing of poisonous medicines. We inti-

mated at the time that upon the Medical Officer of the Privy Council devolved the plain duty of enforcing the fulfilment of this pledge. There does not occur to us any other instance of so flagrant an abandonment of public duty. The monopoly accorded to the Pharmaceutical Society is of great compass. Its Council holds a highly anomalous position, as at once monopolists of a valuable licensing power, proprietors of a school fitting for the licence, sole conductors of the examination for the licence, framers of regulations intended to protect the public, and representatives of trade-interests. When the Pharmacy Bill was passing, Mr. Lowe and Lord Redesdale justly distrusted the propriety of allowing those who represented the trade also to prescribe the regulations which should restrict the conduct of the trade and subserve the protection of the public. But Lord Granville was more trusting; and, by giving very positive pledges that the Society would fulfil its duty, he induced Lord Redesdale to withdraw his opposition, and to leave it to the Council of the Society to prescribe the most fitting regulations. This they have failed to do; and, with the single and most honourable exception of Mr. Sandford, who, as President of the Society and the chief promoter of the Bill, has shown adequate moral courage in insisting on keeping faith with the public, the Council has succumbed to the pressure of the trade. We are very glad to find that the Medical Officer of the Privy Council has been prompt to remind the Society of its duty, and has intimated that, if they did not at their annual meeting make and submit, under the first section of the Pharmacy Act, such regulations in regard to the keeping, dispensing, and selling of poisons as will be sufficient for the safety of the public, the Lords of the Privy Council would feel it their duty to endeavour to protect the public by proposing to Parliament further legislation. This letter was read at the annual meeting last week, and created something like a panic; but the fear of the trade was greater than the fear of the Government—stronger, we regret to say, than those higher motives which should have impelled that meeting to vote unanimously in favour of the prescription of adequate regulations. This course was recommended to the meeting by Mr. Giles and by Mr. Sandford, in speeches of considerable power and irrefutable logic. But interested and weak counsels prevailed, and the meeting failed to do its duty. It will remain for the Privy Council to give effect to its declared intentions for the protection of the public; and we trust it will do so with the least possible delay. Had the Society adopted regulations cheerfully and in good faith, on the recommendation of its Council, it would not, perhaps, have been necessary to employ inspectors to see them carried out. Good-will and the moral influence of mutual acquaintance and general opinion amongst the members would probably have sufficed to secure discipline. As it is, it will hardly be possible to avoid taking power under the supplementary Act which will be framed to appoint such inspectors. Regulations imposed *ab extra*, in the face of a mutinous opposition and so serious a direct violation of pledges, are not likely to be carried out satisfactorily, except under more absolute guarantees than were thought necessary when the Pharmacy Act was passed. The late Jacob Bell, in a Bill which he prepared on this subject, expressly provided that “the President and Censors of the College of Physicians of London shall have full power from time to time, at reasonable times of the day, to enter and search any shop or place where any drugs or medicines, simple or compounded, are sold by retail, to ascertain that the provisions of this Act concerning the keeping of poisons and the labelling of the same are duly observed.” The Government gave the trade the opportunity of making regulations without any inspection whatever; but obviously Jacob Bell knew his fellows better than Lord Granville. It is not likely, however, that the same error will be repeated, or that pharmacists will be able again to chuckle at the exceeding trustfulness which has enabled them to defy for twelve months the Lords of the Privy Council, to withhold protection from the public, and to refuse to perform their part of a contract which conveyed to them a highly valuable and lucrative monopoly, of which they have joyfully taken possession.

ARCHEBIOSIS.

“As to the alleged incubation of the eggs of infusoria, we must first prove the existence of these eggs. If it be asserted that they are too small to be perceptible, that is an avowal that we have no knowledge of their existence. To believe that wherever we meet with infusoria, they have been preceded by eggs or by ova is to admit a pure hypothesis, which has no other foundation than in analogy. If it be only by analogy that the presence of these ova is predicated, we must accord to these ova properties resembling those of all known ova; for it would be playing with words to go on to suppose that they have properties peculiar to them alone.” These shrewd remarks of Burdach, a physiologist of great repute some thirty or forty years since, afford the key to the modern discussions on the germ-theory; and Dr. Bastian starts from this basis in a new monograph on the subject which has issued from the press this week.* The investigation is one which directly connects itself with some of the largest and most vital questions in medical science and practice. Not only has it an immediate relation, for example, with the basis of the “antiseptic treatment” in surgery, but with the doctrine of contagion, of the origin and evolution of zymotic diseases, and with the whole of the applications of the “germ-theory” in our science and practice. The series of essays on the Origin of Life, which we published two years since, laid the basis of this inquiry. Dr. Bastian has pursued the inquiry with the faithful persistence characteristic of the scientific spirit. His experiments have been met by objections not always stated with moderation or founded upon adequate experimental data. In this little volume he gives the results of seventy further experiments designed to meet such objections. Pasteur is the *cheval de bataille* of the supporters of the germ-theory. The experiments here described are entirely adverse to the validity of Pasteur’s results. Fluids *in vacuo* in hermetically sealed flasks, subjected to a degree of heat which Pasteur, Huxley, and Bastian, alike admit to be destructive to life, are found to become turbid with living bacteria; the proof of life being not movements which may be described as Brunonian, but multiplication and reproduction. Pasteur had shown that boiled fluids in bent-neck flasks were preserved from change, as he assumed by reason of the filtration of the air. Lister has laid great strength on these experiments; Bastian, however, now shows that the preservation, far from being universal, is only occasional, and almost wholly dependent upon the nature of the fluids. He demonstrates that the fact revealed by M. Pasteur that some fluids remain unchanged for an indefinite period after having been boiled in flasks with long and bent necks is equally explicable in accordance with Liebig’s physical theory of fermentation; and completes the refutation by a series of striking experiments, some of which go to show that some of the very fluids which remain pure in the bent-neck apparatus will become fetid if shut up *in vacuo*. This he is disposed to explain by the observations referred to by Mr. Sorby in his Bakerian Lectures for 1863, showing that “pressure will, more or less, influence such chemical actions as are accompanied by an evolution of gas, so that it may cause a compound to be permanent which otherwise would be decomposed”.

His experiments lend no support to the hypothesis that the air is so thickly laden with living germs as the partisans of the theory *omne vivum ex vivo* are disposed to assume. He gives solid grounds for the belief that specks of living matter may be born in suitable fluids just as specks of crystalline matter may arise in other fluids—finding it no more necessary to assume a special vital force for the one than a special crystalline force for the other. In his own words—

“The ultimate elements of living matter are in all probability highly complex, whilst those of crystalline matter are comparatively simple. Living matter develops into organisms of different kinds, whilst crystalline matter grows into crystals of diverse shapes. The greater modifiability of living matter, and the reproductive property by which it is

* The Modes of Origin of Lowest Organisms; including a Discussion of the Experiments of M. Pasteur, and a Reply to some Statements by Professors Huxley and Tyndall. By H. Charlton Bastian, M.A., M.D., F.R.S. London and New York: Macmillan and Co. 1871.

essentially distinguished from crystalline matter, seem both alike referable to the great molecular complexity and mobility of the former. Crystals are statical, whilst organisms are dynamical aggregates, though the evolution of both, marked by their peculiar characteristics, may be regarded as visible expressions testifying to the existence of one all-pervading Power."

In this brief outline we can, of course, do justice neither to the elaborate argument, nor to the numerous and skilfully devised experiments succinctly set forth in the pages of the work. We recommend it for careful perusal and critical examination. Few will rise from it without feeling that its suggestions and conclusions are only to be overthrown, if at all, by solid experimentations of an equally skilful character, and that the dialectical skill which its author displays is of the keenest temper. It is a work worthy of the highest respect, and places its writer in the very first class of scientific physicians. Such investigations lie at the basis of progress in the investigation of the nature and modes of disease, and it would be difficult to name an instance in which skill, knowledge, perseverance, and great reasoning power have been more happily applied to the investigation of a complex biological problem. Archebiosis, we may observe, is a word coined as the substitute for biogenesis, to which Dr. Bastian objects as philologically incorrect in the sense which it is intended to bear.

IRREGULAR CONSULTATIONS.

THE Secretary of the Irish Branch of the General Medical Council has written to the Dublin papers, stating that Mr. Ledger Erson, a witness at the inquest referred to last week, is not registered at all under the Medical Act; and calling the attention of the public to the securities which registration affords and the penalties of simulating it. We have received from Irish associates many communications on the subject. There have been enclosed to us trade-circulars of Mr. Erson relating to a great variety of chandlery, spices, and sundries offered at least prices to households.

The high professional tone of our brethren in Dublin has often been the subject of general congratulation among our associates; and the fact of the eminent President of the College of Physicians, Dr. Banks, and other highly placed medical men, having met Mr. Erson in consultation, has given rise to serious comment. It is impossible to expect the rank and file of any professional body to attach the desirable importance to the maintenance of ethical rules, however well-founded and however important to the security of the public and the honour of the profession, if those who occupy the highest official positions, whom men delight to honour, and who are the natural and official guardians of those rules, openly violate them. It does not diminish the necessity, although it adds to the pain, of commenting on the facts, that Dr. Banks is a physician highly esteemed and much beloved. We cannot shrink from expressing the opinion that the circumstance ought not to, and indeed cannot, be passed over in silence. Dr. Banks owes to his Fellows in the profession an explanation of the facts, and a declaration of the principles which guide him in accepting consultations. Nor should a precedent which might easily become disastrous be allowed to be placed on record without either personal explanation or official protest. We refer specially in this matter to one physician, though others are equally concerned, because his official position gives peculiar importance to his connection with it, and adds force to the claim which the profession may properly make for some sign on his part which shall prevent the acts complained of from being drawn into a demoralising precedent, which might become dangerous to public interests and degrading to professional status.

THE subscriptions for a memorial of the late Professor Oppolzer amount to 4130 florins (nearly £400).

MR. FREDERICK CHURCHILL and Mr. Marsh are additional candidates for the appointment of assistant-surgeon to St. Thomas's Hospital.

THE epidemic of typhus in Vienna does not yet show signs of abatement. In the week ending last Saturday, 120 new cases were admitted into the hospital; and 536 patients remained under treatment at the end of the time.

WE regret to hear of the accidental death of the Secretary of St. George's Hospital from an over-dose of prussic acid, which with other drugs he had been long in the habit of taking to allay pain from which he suffered.

DR. EDWARD FRIEDRICH WEBER, Professor of Anatomy at Leipzig, died on May 19th. He was the author, in conjunction with his brother, Dr. Wilhelm Weber, of a treatise well known to anatomists, entitled *Mechanik der menschlichen Gehwerkzeuge*.

THE average annual number of child-murders reported in Austria during five years has been 110. Of these 30 were in Galicia, 21 in Bohemia, 16 in Moravia, 9 in Lower Austria, and 7 in Styria. The number in proportion to the population has increased in Moravia, and has much diminished in Lower Austria.

DURING the recent siege of Paris, Dr. Moreau was killed by a shell while attending to the wounded near the Porte Maillot. Both his legs were smashed. The Paris correspondent of the *Morning Post* says that while he was one day visiting the *Ambulance Anglaise*, a shell burst in the garden, and a fragment passing through an open window struck, but without injuring, an officer whose wounds Dr. Cormack was at the time dressing.

ST. BARTHOLOMEW'S HOSPITAL.

WE understand that the choice of the Governors of St. Bartholomew's Hospital, for the vacant appointment of Assistant-Surgeon, will in all probability fall on Mr. Marrant Baker.

THE UNIVERSITY OF PESTH.

THE centenary anniversary of the medical faculty of the University of Pesth was celebrated on May 13th. At 10 o'clock in the morning, the professors of the four faculties, many notabilities in Vienna, and the students of the University, assembled in the University Church, where a solemn service was held. A meeting afterwards took place in the great hall, where the dean of the faculty of medicine, Professor Rupp, delivered an address. It was then announced that His Majesty the Emperor had nominated to the rank of councillors Professors Stockinger, Lenbossek, and Lippay, and had conferred on High Councillor Rupp the order of the iron crown of the third class; all these honours being granted without payment of the usual tax.

THE ORIGIN OF A PESTILENCE.

IT need not interfere with our active sympathy and aid to the sufferers from the terrible epidemic at Buenos Ayres, if we take to heart the lesson which that epidemic teaches. The natural advantages of the town as to site and climate are very great; but, by a reckless and obstinate disregard of the commonest rules of hygiene, soil and water have been so poisoned that it is doubtful whether there is any effectual remedy less sweeping than to remove the population altogether to another site lower down the river. During threescore years a progressively increasing population has done its work. There is absolutely no drainage. In the courtyard of every house a cesspool is dug; as this is filled, a trench is led off to a second at a lower level; presently another trench to a third; and so on. The soil is light and sandy, and so readily allows percolation. Thus have successive generations contrived to utterly poison the soil, water, and air of their town. Lately, the courtyard of the club-house was found to be so riddled with cesspools—there being thirty—that it was at last resolved to move the club. The same conditions prevail more or less over the whole city. Mr. Bateman, C.E., has been sent for, we believe, to give plans for drainage, and to see what can be done. He will have no easy task.

FUEL FOR THE FLAMES.

WHEN the siege of Paris was commenced by the Prussians, the stores of wine were carefully estimated. At its close, it was found that the wine had been consumed at the enormous rate of nearly eight million gallons per month. Under the reign of the Commune, the consumption was even larger. This may account for some part of the terrible events we have seen, and supersede the necessity for inventing a theory of "contagious mental alienation" in the population of Belleville and Montmartre.

PRIZES OF THE ROYAL COLLEGE OF SURGEONS.

THE following are the subjects. For the Triennial Prize, consisting of the John Hunter Medal executed in gold to the value of fifty guineas; or, at the option of the successful author of the dissertation, of the said medal executed in bronze, with an honorarium of fifty pounds, the subject is, "The Structure and Functions of the Medulla Oblongata, including the connexions of the Central Nerve-Roots; the dissertation may be illustrated by preparations and drawings." For the Jacksonian Prize, amounting to a dividend between £10 and £11, the subject for 1871 is, "The Treatment of Wounds after Operations, including the arrest of Hæmorrhage primary and secondary"; and that for 1872, "The Diseases of the Nose, including those of the Sinuses connected with it, and their Treatment; the dissertation may be illustrated by drawings, preparations, etc." The dissertations for the Collegial Prize must be delivered at the College before Christmas-day 1873; those for the Jacksonian Prize for 1871, before Christmas-day next; and those for the Jacksonian Prize for 1872, before Christmas-day 1872.

PLAIN DIRECTIONS FOR CHECKING THE SPREAD OF INFECTIOUS DISEASES.

AT a time when small-pox is affording so large an item to the death-rate of the metropolis, a general dissemination amongst the lower classes of instructions for preventing the spread of infectious diseases, cannot be over-estimated. To secure this as far as possible, the Managers of the Parochial Mission Women's Fund have been able to render the Mission Women of great use in the present prevalence of epidemic disease, by furnishing them, for distribution among the poor, with some very simple circulars on the subject of vaccination and of the prevention of infection, drawn up by Mr. W. Squire, with a special regard to what is practicable in the crowded rooms of the poor; and at the same time by providing, by a special arrangement, through the Lady-Superintendent, an abundant supply of disinfectants, and especially disinfecting soap, at so low a wholesale price that the poor are learning gladly to take the opportunity of buying it themselves. The advantages which have accrued to the poor from the labours of this Society have, we believe, been very large; the kindly offices of the Mission Women in cases of distress, degradation, and sickness, have had a sensible influence for good amongst the lowest classes of London, amongst whom they visit. We regret to hear that the want of funds has latterly tended seriously to curtail their work.

SECRET HISTORY OF BABY-FARMING.

THE police evidence being given before the Select Committee of the House of Commons on Baby-farming has disclosed some remarkable facts. One witness described a house in which he had proved the birth of forty-six children in two years. Some of the children were taken away to baby-farms in Oxford, Gloucester, and elsewhere. The births were not registered. Nine of the children were traced directly to a woman who has confessed to having dropped sixteen about the streets, and who is undergoing imprisonment. Another witness, referring to this same case, states that he had seen personally sixteen of the mothers who were confined at this house. They had paid various sums for the disposal of their children, and none of them knew what had become of them. Of six children traced to a country baby-farm, four died very quickly of "atrophy" or wasting away. Of forty children taken charge of in two years at another notorious establishment, only four ultimately survived. The woman had occupied five different houses in twelve

months. She neither registered the births nor, of course, the deaths. It was extremely difficult to trace these cases. In one case, three men had been occupied for three months in watching one establishment. Superintendent Gernon had known five or six women at one time under confinement at these lying-in establishments; and the children born there were so numerous, that they must be connected with many baby-farms. There was great difficulty in ascertaining where baby-farms were carried on, and, secondly, when that was ascertained, to get into the houses. It was almost impossible to obtain convictions for crime in such cases, because there was no one now to inform, and those who could inform would not do so, from interested motives. The children who were paid for weekly had a chance of living, and those who were paid for by a lump sum died. He was in favour of the supervision of these houses by a medical man, and thought that registration of nurses would give a better class of nurses. Sergeant Relfs stated that the same system was carried on all over London, and described the means employed at particular houses (to which the police had obtained clues) for disposing of the children. It was impossible to obtain convictions for murder in such cases, because every witness for the prosecution would have to confess herself also guilty of murder. The births and deaths were not registered, as a rule. He mentioned the instance of a woman who was in the habit of registering the deaths of infants, whereupon the registrar said to her one day, "How is it that you register such a number of deaths?" The consequence was, that the woman never went to him any more. He traced the woman to the south side of London, and found that she had then five children in the house, in a dirty and saturated state; and, when he went into the house, they were sitting round the table, "eating soup out of a basin with a fork." He spoke of other instances within his knowledge, as of "a woman who nursed children at so much a week; and generally, when the payment ran short, one died." He was strongly in favour of registration of nurses and supervision of baby-farms.

FELLOWSHIP EXAMINATIONS AT THE COLLEGE OF SURGEONS.

THE difference between the feelings of accepted and of rejected candidates is no doubt very considerable. It accords with general experience, however, that the gratification of success is by far less effusive than the anger of failure; nor are those who succeed so likely to perceive merit any where else than in themselves, as are those who fail to attribute the causes of their failure to every one else rather than themselves. A successful candidate from Birmingham writes to us as follows.

"The Court of Examiners of the Royal College of Surgeons comes in for so much abuse, that I feel it is only common honesty to express the admiration and respect that I have formed for it, after a rather close acquaintance during the two examinations for the F.R.C.S. The examiners appear to me to spare no pains to make the examination searching and discriminative, and thereby to render the diploma a worthy object of study and of ambition. But, while requiring a standard of knowledge by no means low, they show to their candidates the greatest courtesy, consideration, and in many cases even kindness. Candidates who perhaps meet with a little petulance or irritation, or think they do so, are so ready to put their grievances in print, that I feel I cannot with justice do other than express the consideration which I met with, and all the other candidates to whom I have mentioned the matter, at the last F.R.C.S. examination."

AN UNIVERSITY PROFESSOR IN ARMS.

THE *Wiener Medizinische Wochenschrift* relates that Professor Karsten, after the disturbance on the 3rd instant, applied at the police station at Alsergrund for a permission to carry arms, so that, provided with a revolver and a sword-cane, he might be in a condition to meet the "barbarous horde" who might insult him at his next lectures. He also demanded that two hundred policemen should be placed at his disposal for the apprehension of the students, if they should offer any insult. The commissary of police replied that he could not consent to this request, as the amount of mischief that might arise could not be calculated. Professor Karsten thereon said, that he wished the use of arms for his protection in his botanical excursions. The commissary

still declined compliance until he had consulted the director Lemonnier. The latter officer refused to grant Professor's Karsten's request, and desired him to avoid the scene of strife until the Government had arrived at a conclusion on the subject. A similar intimation also reached the professor from the consistorium of the University and the Dean of the Faculty of Medicine. It is certainly an unique fact in the history of Universities, that a professor should only be able to carry on his course with the aid of a revolver, a sword-cane, and two hundred policemen.

WELL MANAGED DAY-NURSERIES.

OUR Manchester correspondent writes:—There are three day-nurseries in Manchester, each of which has a daily average attendance of twelve children. One is in Deansgate, established by Mr. Whitehead; the second is in Salford, and owes its existence to Dr. Syson, the health-officer for that borough; the third is off Oxford Road, under the supervision of one of the Poor-law guardians. The children thrive well, and, if much cooing and little crying are tests of baby-bliss, are as happy as they can be. I do not know what the mortality has been in the Oxford Road Nursery. In Salford, *one* of the children has died during the last year; while in the Deansgate Nursery the mortality for the last eighteen months is *nil*.

MEDICAL ATHLETES.

THE Annual Meeting of the United Hospitals Athletic Club was held at the Lillie Bridge Ground on Thursday. The weather was fine, the sports good, and the attendance very large. Cross and Madden of King's College, Power of Guy's, and Goodeve of University College, particularly distinguished themselves. The arrangements were excellent, thanks chiefly to Mr. F. Richardson Cross, the Honorary Secretary.

A HOSPITAL NOT A NUISANCE.

A POINT of some importance to the owners of land or houses in the neighbourhood of small-pox hospitals was raised this week in the Court of Vice-Chancellor Wickens. The Metropolitan Asylums Board had purchased a piece of ground at Kensington, on which they had proposed to erect a small-pox hospital for the reception of the sick poor. The owners of the adjoining property declined to permit a road to be made to the building, on the ground that the institution would be a nuisance and an injury; and now demurred to a bill which had been filed to compel them to do so. The Vice-Chancellor overruled the demurrer, observing that a small-pox hospital had been already decided not to be a nuisance.

THE REPORT OF THE VACCINATION COMMITTEE.

THE Report of the Vaccination Committee of the House of Commons has appeared in all the daily papers. We need not, therefore, do more than observe that its chief recommendations are:—1. The appointment of vaccination inspectors as a matter of obligation to guardians. 2. The maintenance of the vaccination register, and its comparison with the birth register, by these officers. 3. The limitation of the "compulsion" to the infliction of two successive fines on recalcitrants. 4. The consolidation of the vaccination functions, now divided between the Privy Council and the Poor-law Board. These are all steps in the right direction. The first two were strongly urged by the Parliamentary Committee of our Association when the Bill was passing. That they were not then adopted was due to difficulties originating, we believe, in the General Register Office. Dr. Septimus Gibbon was their consistent and urgent advocate. We do not believe that any advantage can be gained by urging compulsion beyond a certain point; and we approve of the resolution of the Committee on this head. As every successive inquiry indicates more pressingly the necessity of consolidating the sanitary functions of the scattered government offices, we hope that this will soon pass from the region of things under consideration, to that of accomplished facts. The State Medicine Committee of the British Medical and Social Science Associations have exhausted the arguments in favour of it. The heads of departments are satisfied of its necessity. Mr. Simon has

shown how it can best be done; and two Commissions have recommended that it should be done. Let us hope it will be. A great many questions of machinery are left unconsidered in the report, and are in the hands of the Medical Department of the Privy Council.

THE SMALL-POX IN LONDON.

THE small-pox epidemic shows but little signs of decrease. There were last week ten deaths fewer than in the preceding week; but as compared with that ending May 6th, they were 31 less. The persistency of the disease, and the serious character of the mortality from it, will be perceived by the following figures, which represent the weekly deaths in the last quarter—213, 194, 185, 205, 192, 214, 265, 276, 261, 288, 232, 267, and 257. The greatest mortality in any given week was, therefore, that ending May 6th, when 288 persons died from this disease. There is, however, some consolation to be derived from the fact that, during the same period, the deaths from all causes were (except once), never so few as in last week. The figures are:—1,591, 1,601, 1,576, 1,665, 1,564, 1,493, 1,722, 1,578, 1,469, 1,522, 1,341, 1,486, and 1,401.

THE INFECTION OF SMALL-POX.

A CASE tried in the London police courts this week turned on the question whether small-pox is infectious before the eruption appears. The alleged authority of Sir James Simpson and Mr. Erasmus Wilson was quoted in favour of the view that it is not. We know not where that authority is found. The statement is contrary to observed and accepted facts. Dr. Murchison, in his course of medicine at Middlesex Hospital, tells his class explicitly that small-pox is infectious from its first commencement to the falling of the last scab. He has mentioned to us several cases in point recently of black small-pox rapidly fatal before any eruption has appeared, and in an incipient stage in which its diagnosis has been doubtful, and has been the source of error, but proving in that stage highly infectious. Cases of the kind proved recently foci of infection in the Fever, Middlesex, and King's College Hospitals. They are, indeed, within the recent experience of most persons who have had much to do with small-pox. We do not find anything to the contrary effect in Mr. Wilson's works.

SOIRÉE AT GUY'S HOSPITAL.

THE new wing of Guy's Hospital was the scene of a brilliant *conversazione* on Wednesday evening. The wards, to which we have before referred, were filled with a remarkable selection of objects of art and science, and by an overflowing assembly, including all the notabilities of the profession, and a large number of distinguished laymen. Ladies were present in almost equal numbers. Music, working models of manufacturing processes, physical and electrical experiments, microscopes and microscopic objects of rare abundance and merit, jewels, porcelain, some exquisite and unique specimens of Greek glass, printing presses and heliotype frames, pictures, and statuary, filled this fine edifice. Creature comforts were, we believe, duly regarded; and the thanks of all Guy's men are due to the Treasurer, Mr. Turner, Dr. Steele, Mr. Stocker, and the Committee, for the labour which they must have devoted to the successful organisation of a reception on so large a scale, and inaugurating so brilliantly a new department of this noble charity.

THE AMALGAMATED EXAMINING SCHEME.

SOME very curious writing indeed may be observed in our contemporaries when they undertake to discuss subjects of medical reform. If what has been written by them lately concerning the amalgamation scheme be taken as a test, it is charitable to suppose that they do not attempt to understand its provisions. Anything more wild or wide of the mark than their criticism it is difficult to imagine. One mixes it up with various bills and parliamentary schemes, and even assumes that it requires parliamentary sanction, and complains that it does not include Ireland and Scotland. Another refers to it as giving "a preponderance to the universities", and involving a surrender of the privileges of the licensing

bodies to the universities. The obvious fact is that such surrender or concession as is made comes from the universities, who consent to pass their graduates through a mill with which they need have really nothing to do, and subject them to a test which is in their case valueless, in order to answer the call of the profession in England for an uniform minimum test—one portal. The privileges which they secure by this are absolutely *nil*: their assessors will have votes in selecting (not electing) an efficient board of examiners. To talk of the relative number of their graduates is pure nonsense and mystification. It is a question of quality, not of quantity; and the object is to devise means for obtaining by common consent of the examining bodies a perfectly satisfactory board of examiners, selected only with a view to their fitness, and to the ultimate excellence of the examination. We repeat that the scheme now produced is the first which has been plainly devised with a sole view to the professional and public benefit. It is one which reflects honour on the College of Physicians who have proposed it, and the University of London who have signified their assent to it. And if the College of Surgeons and Apothecaries' Society are in earnest, they have no other course than loyally, cordially, and frankly, to aid in carrying out the plan.

CLAY IN THE LUNG.

DR. E. VON GORUP-BESANEZ, in the *Annalen der Chemie und Pharmacie*, describes the quantitative chemical examination of the lungs of a person who had during lifetime worked in a factory, and had been there exposed to the inhalation of mineral dust. They were found to contain, in 1000 parts, no less than 19.91 parts of mixed sand, clay, and silica.

QUARANTINE AT MALTA.

THE *Malta Times* of May 10th reports that the English screw steamer *Scotland* arrived that morning from Calcutta, *via* the Suez Canal, with clean bills of health; and that Inspector Gerada, of the Marine Police, and Mr. Dandria, representing the agent at Malta, went on board and communicated with the captain, who afterwards declared that a case of illness (cholera), followed by death, had occurred on board the ship six weeks previously at Madras, and that other different cases of slight sickness had since happened among the crew. She was consequently ordered to perform quarantine, and the matter was brought before the Board of Health for consideration. We hear, says the *Malta Times*, that both Mr. Dandria and the inspector have been landed at the Lazaretto to undergo fifteen days' quarantine. The occurrence created quite a panic in the island; owing to a rumour becoming current that a ship had arrived with six cases of cholera on board and five deaths on the passage. The elected members hurried to the Palace, seeking interviews with his Excellency the Governor, and the Chief Secretary, and begging that rigorous measures might be immediately adopted. The *Malta Times* trusts that these panics will not be repeated; and that the idea of refusing to receive vessels arriving from India, where cholera is always present, will be abandoned at once and for ever, unless it be desired to give a death-blow to the important steam-trade which the opening of the Suez Canal is likely to develop at this island.

THE annual dinner of the army and navy medical officers is said to have passed off well.

SCOTLAND.

THE ACTION AGAINST MISS JEX BLAKE.

A VERDICT was given on Wednesday in favour of Mr. Edward Craig (Dr. Christison's assistant) against Miss Jex Blake for defamation of character. The damages assessed were one farthing. This means, we presume, that what Miss Jex Blake said was not justifiable, but that her observations were unimportant, and that Mr. Craig's character was not affected.

THE GLASGOW ANDERSONIAN INSTITUTION.

THE sum of £2,000 has been offered for the purpose of founding a chair for the teaching of applied physics. Several bursaries of £50 each *per annum*, for three years, have been promised, for the encouragement of practical and applied chemistry.

THE LADY MEDICAL STUDENTS.

THE directors of Chalmers' Hospital, Edinburgh, have refused to consider favourably the request of the Committee for promoting the medical education of women, that the lady medical students be admitted to the wards of the hospital. There are, we understand, now eleven ladies studying medicine in Edinburgh; and there will be not fewer than fifteen next session. Two scholarships have just been offered to be competed for by lady medical students in Edinburgh in October.

IRELAND.

OUR Dublin correspondent telegraphs that the statements current as to the death of Dr. Hewitt are happily erroneous. That physician is suffering from fever, but hopes are entertained of his recovery.

DR. DENHAM is a candidate for a seat in the Council of the Royal College of Surgeons of Ireland, with great probability of acceptance. It is wisely proposed that two of the Councillors should retire annually: it would be better to say four.

HIGHLY complimentary resolutions have been passed by the governors of the Rotunda Hospital, on the motion of Dr. Johnston, the master, recording in an unusual form their sense of the value of the services of Dr. More Madden as assistant-physician to the hospital.

THE SEWAGE QUESTION IN DUBLIN.

THE problem, What is to be done with our sewage? much needs solution. With a population about one-tenth that of London, and certain facilities not possessed by the metropolis of the United Kingdom, Dublin, on the one hand, affords a suitable opportunity for the carrying out of a system of drainage, based on such scientific principles as would insure the prime desideratum; namely, the promotion of the health of the inhabitants, without neglecting such means of utilisation as would be compatible with the attainment of that grand aim of all such measures. The plan for which the Corporation of Dublin has succeeded in obtaining the sanction of a Parliamentary Committee of the House of Commons accomplishes neither end; indeed, it does more than promise the non-fulfilment of those first essentials of correct sanitation—for, backed by sworn engineering evidence, it flies not only in the face of all such commonplace matters as improvement of the public health and sewage utilisation, but undertakes to overcome the considerations of natural gradients and watersheds, though of course at vast cost; concentrates the sewage of large tracts of the suburban districts, much of which will have to be raised at great cost by pumping; and, after a route of many miles through a tolerably thickly inhabited city district, with a climate and locality but too prone to favour zymotic disease, which the general poverty and overcrowded state of many parts aids, casts the already fermenting sea of filth into the mouth of the river, whence it will readily find its way back to the city and suburbs, distant only one, two, and three miles, in so many directions. We may ask, What provision is being made against the risk of silting up the shallow mouth and bar of the port of Dublin? Only the interposition of a subsidiary tank, which will be valueless at the very time when most wanted; namely, when heavy falls of rain occur, carrying down from the ill-made and constantly filthy Dublin streets vast amounts of sedimentary matter. It is well, therefore, that a protest has been entered against the undertaking by several hundred heads of families representing upwards of four thousand of the inhabitants of the city of Dublin.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Queen's Hotel, Birmingham, on Tuesday, the 6th day of June, 1871, at 3 o'clock *precisely*.

A meeting of the Subcommittee of Branch Secretaries—consisting of Mr. Bartleet, Dr. Bryan, Mr. Reginald Harrison, Dr. Henry, Mr. Hodgson, Mr. Nicholson, and the General Secretary—will be held on the same day, at the same place, at 10 o'clock A.M.

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary*.
13, Newhall Street, Birmingham, May 16th, 1871.

MIDLAND BRANCH.

THE annual general meeting of the above Branch will be held in the Board Room of the Infirmary, Derby, on Thursday, June 8th, at 2 P.M.; WILLIAM OGLE, M.D., President-elect, in the Chair.

After the usual routine business, the following papers will be read. 1. Case of Extensive Wound of the Knee-joint, for which Primary Excision was successfully performed. By T. Sympton, Esq.—2. Cases of Hydrophobia. By G. Elder, M.B.—3. Clinical Observations on the General Paralysis of the Insane. By J. Hitchman, M.D.—4. Case of Ununited Fracture of Humerus, for which resection of the ends of the bones was successfully performed. By J. W. Baker, Esq.—5. Case of Compound Fracture of the Skull, for which the fractured portion of bone was replaced without trephining. By F. W. Wright, Esq.

After the discussion of the above papers, the members with their friends will adjourn to the Midland Hotel for dinner at 5 P.M. punctually. Tickets 5s. each; early application for which is earnestly requested by the Secretary (A. H. Dolman), so that he may make the necessary arrangements.

A light luncheon will be prepared at the Infirmary for visitors, between 1 and 2 P.M.

A. H. DOLMAN, *Honorary Secretary*.

Derby, May 31st, 1871.

NORTHERN BRANCH.

THE annual meeting of the above Branch will be held in the Assembly Room, Bath Terrace, Tynemouth, on Thursday, June 15th, at 1.30 P.M.; J. B. BRAMWELL, M.D., President, in the Chair.

Dinner at the Bath Hotel at 4 P.M.

Gentlemen intending to read papers or describe pathological specimens, are requested to communicate with the Secretary without delay.

G. H. PHILIPSON, M.D., *Honorary Secretary*.

Newcastle-upon-Tyne, May 27th, 1871.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE annual general meeting of the above Branch will be held at the Great Western Hotel, Birmingham, on Friday, June 16th, at 3 P.M.; when an address will be delivered by the President, Mr. OLIVER PEMBERTON.

Members have the privilege of introducing their friends, being qualified members of the medical profession.

The members and their friends will dine together afterwards, at five o'clock punctually.

Gentlemen intending to be present at the dinner, will be good enough to communicate as early as possible with the Honorary Secretary.

Dinner tickets, inclusive of waiters and dessert, 7s. 6d.

Members whose subscriptions are not yet paid, are earnestly requested to pay them at or before the annual meeting.

T. H. BARTLEET, *Honorary Secretary*.

8, Old Square, Birmingham, May 1871.

LANCASHIRE AND CHESHIRE BRANCH.

THE annual meeting of the above Branch will be held at the Medical Institution, Liverpool, on Wednesday, June 28th, at 12 o'clock. *President*, Dr. SPENCER, Preston; *President-elect*, Dr. DESMOND, Liverpool.

The dinner will take place at 4.30 P.M.

Members intending to read papers, are requested to communicate with the Honorary Secretary without delay.

REGINALD HARRISON, *Honorary Secretary*.

51, Rodney Street, Liverpool, May 24th, 1871.

SOUTH MIDLAND BRANCH.

THE annual general meeting of the above Branch will be held at the General Infirmary, Northampton, on Tuesday, June 27th, at 1 P.M.: Dr. WM. CLARK, President, in the Chair.

Gentlemen intending to read papers (not to exceed fifteen minutes in reading), are requested to send the titles forthwith to Dr. Bryan, Honorary Secretary.

Dinner will be provided at the Angel Hotel, at 4 P.M.; charge, 6s., including dessert and waiters; and gentlemen who intend to be present, are requested to let me know on or before June 23rd.

Members whose subscriptions are not yet paid, are earnestly requested to pay them at or before the annual meeting.

J. M. BRYAN, M.D., *Honorary Secretary*.

Northampton, May, 1871.

EAST ANGLIAN AND CAMBRIDGE AND HUNTINGDON BRANCHES.

THE annual meeting of the above Branches will be held at the Norfolk and Norwich Hospital, Norwich, on Friday, June 30th, at 2.30 P.M.; P. EADE, M.D., President.

Gentlemen wishing to read papers, are requested to send the titles to one of the Honorary Secretaries; and those members who intend to be present at the dinner will be good enough to communicate the same as early as possible.

Dinner tickets, 12s. 6d. each.

J. B. PITT, M.D., Norwich.

B. CHEVALLIER, M.D., Ipswich.

J. B. BRADBURY, M.D., Cambridge.

} *Honorary Secretaries.*

SOUTH EASTERN BRANCH.

THE twenty-seventh annual meeting of the above Branch will be held at the Steine Hotel, Worthing, on Friday afternoon, June 30th; Dr. TYACKE, Physician to the Chichester Infirmary, in the Chair.

G. FREDK. HODGSON, *Honorary Secretary*.

Brighton, June 1870.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE first annual meeting of the above Branch will be held on July 5th, at the Swansea Hospital, at 1.30 P.M.: *President*, GEORGE PADLEY, L.R.C.P. Lond.

Dinner will be provided at the Mackworth Hotel at 5 P.M. Tickets, 6s. 6d. each.

Members desirous of reading papers or notes of cases, are requested to communicate the titles at as early a date as possible to one of the undersigned.

A modification of Rule No. 2 of the Branch will be proposed at the meeting.

The Council will meet at 12.30 P.M.

Members of the Branch may introduce members of the profession to the annual meeting and dinner.

All members intending to join the latter, will oblige by sending to one of the Honorary Secretaries a communication to that effect on or before the 30th inst., so that arrangements may be made and tickets reserved.

A. DAVIES.

A. SHEEN, M.D.

} *Honorary Secretaries.*

June 1st, 1871.

CUMBERLAND AND WESTMORLAND BRANCH.

THE spring meeting of the members of the above Branch was held at the King's Arms Hotel, Kendal, on Wednesday, May 3rd, 1871. *President*: T. F. F'ANSON, M.D., President, in the Chair, and about eighteen members and visitors.

The Minutes of the last meeting were read and agreed to.

New Member.—Mr. George John Muriel, of Whitehaven, was elected a member of the Association and Branch.

Representative on Parliamentary Bills Committee.—Dr. Green (Kendal) was elected as the representative of the Branch on the Parliamentary Committee of the Metropolitan Counties Branch.

Papers.—The following papers were read. 1. On a Case of Ileus from a knot on the lower part of the small intestine. By M. W. Taylor, M.D., Penrith.—2. On the relative Therapeutic Value of Expectorants. By John Singleton, Esq., Kendal.—3. An observation in the Treatment of Incipient Bright's Disease. By T. Green, M.D., Kendal.—4.

Further observations on the true nature of Skin-grafting. By David Page, M.D., of Kirkby Lonsdale.—5. On a Case of Medullary Carcinoma of the Stomach. By D. Page, M.D., of Kirkby Lonsdale.—6. On Deposits of Fibrin in the Heart and large Blood-vessels as a cause of death. By Henry Barnes, M.D., Carlisle.

Dinner.—Eighteen gentlemen afterwards sat down to dinner under the presidency of Dr. F'ANSON; Dr. Taylor of Penrith occupying the Vice-chair. The visitors included the Worshipful the Mayor of Kendal, the Venerable Archdeacon Cooper, and other gentlemen.

SPECIAL CORRESPONDENCE.

FOUR DAYS IN THE AMBULANCES AND HOSPITALS OF PARIS UNDER THE COMMUNE.

II.

IN my last letter, I endeavoured to limit myself chiefly to a condensed but very general account of the hospitals and ambulances as they existed at the time of my visit to Paris. I also touched upon a few social and medico-social features of interest which came under my observation, and which I thought might fairly be noticed without depreciating the purely medical value of the communication or encroaching too largely on the space of the JOURNAL. I shall now proceed to describe more in detail the medical and surgical features of interest which were afforded by the hospitals and ambulances, and shall at the same time continue to take an occasional glance at social matters, with which they were more or less linked, and which tended greatly to intensify the professional interest of the individual cases. In fact, the hospitals and ambulances formed, to a large extent, a mirror of the social and political state of Paris.

A popular belief has for some time existed in this country, that the French excel in surgery, and this same opinion is still entertained and taught by a few members of the profession here. I confess that a constant attendance for four months in the surgical wards of the Paris hospitals in 1865 led me to arrive at a very different conclusion. I take it that the great advance which has been of late years made in surgery, lies chiefly in the undeniable recognition of the vast importance of attending to the hygienic conditions in which patients are placed, especially as regards cleanliness of wounds and thorough ventilation of wards. Delicate operations and conservative surgery generally owe their success largely to the maintenance of these necessary conditions. But we find in France, and very generally on the Continent, an incomprehensible ignorance of this; and the present unhealthy state of the wounded in the hospitals and ambulances of Paris bears out what I say. I took the opportunity, in my last letter, of alluding to the marked success which had attended the American and Mr. Cook's ambulances, which is fairly to be attributed to the excessive cleanliness and efficient ventilation constantly enforced. In these ambulances no deaths, or at most one, occurred from pyæmia. If, on the other hand, we take for example the results at the Beaujon Hospital, we find that fifteen patients who had the leg amputated all died of pyæmia or gangrene; of three amputations at the shoulder, two were fatal from the same cause, and the third patient was not yet well. Greater success has attended the other amputations of the upper extremity; but I am unable to give the exact details of the cases. That Beaujon has suffered more severely than many of the other hospitals may be true; but pyæmia and gangrene have been, I believe, commonly prevalent in all. So generally, indeed, is this known, that the wounded frequently decline to enter the general hospitals. This may account for the comparatively small number of wounded in these hospitals. The wounded no less appreciate the care and attention bestowed on them at the Ambulance Anglaise, to which many have requested to be carried. The ambulances generally, however, have suffered less severely than the hospitals. It would be a task of no great difficulty to obtain in Paris numerous instances confirmatory of the opinion long entertained in this country, that the congregation of large numbers of wounded together is likely to be followed by disastrous results; especially with such absence of proper dressing and cleanliness of the wounds as is found in the French hospitals. In time of war, too, it must be remembered, houses of all descriptions are utilised as ambulances. The Grand Hotel, for instance, hemmed in by houses in a thickly populated neighbourhood, was appropriated for the purposes of an ambulance during the first siege; and the mortality was, consequently, very excessive. It is for the same reason rather painful to recall to mind the magnificence of the great Herbert Hospital of Woolwich, and the probable consequences which would ensue were it found necessary to fill its wards with wounded men.

In considering the probable mortality among the National Guards wounded during the civil war, it will be well to remember that the Communists have been fighting under much more favourable conditions than existed during the first siege of Paris. They have been exposed to few of the fatigues and vicissitudes of weather which so seriously affected the mortality last winter. The population looks healthy, and has recovered from the depression produced by the first siege. In fact, to judge by their appearance and by the considerable number of dogs which appear to have escaped the affectionate attention of the cook, one is almost inclined to suppose that the journalists who during the first siege of Paris kept us supplied *par ballon monté* with news of the sufferings chiefly of themselves, must have been more unfortunate than the general body of the Parisians in procuring food. There is at present but a trifling scarcity of good food in Paris, as evidenced by the price of provisions; and the general health of the population—omitting the prevalence of small-pox—is good. At the Hôtel Dieu, there are plenty of empty beds—a state of matters which can scarcely be explained by the exodus of three quarters of a million of the population, as the poorer or hospital-going classes still remain in Paris. And it must not be thought that the Commune has by any means neglected to attend to hygienic precautions for the maintenance of the health of the population. The night-soil is removed betimes in the morning; the hospital service has been conducted by the Assistance Publique as usual; and the general comfort of the citizens, as they are now called and call each other, has not been ignored: the systematic watering of the boulevards I saw carried on even where bomb-shells were not unfrequently falling. A further attempt has been made to improve the public health by dealing a blow at prostitution. Although the general health of the population of Paris may be at present good, it is to be feared that the poverty and depression consequent on the Franco-Prussian and civil wars will tend greatly to increase the ravages of the cholera, which is assuredly approaching.

Before proceeding to give a detailed account of some of the wounded who came under my observation, I may be permitted to say a word on the general nature of the wounds and on some of the dressings commonly in use.

A noticeable fact is the frequency of bullet-wounds of the shoulder, more especially of the right side. This, and also the comparative rarity of bullet-wounds of the lower extremities, very common in the Franco-Prussian war, may be accounted for when it is remembered that during the second siege a great part of the fighting has been from the windows of houses and behind barricades, or, more commonly, powerful and well mounted earthworks and batteries. This, by the way, tempts me to wander from my subject, and allude to the character of the present revolutionists, who, unlike their more immediate predecessors, are mostly trained soldiers who have passed through a siege in which unexampled opportunities were afforded for understanding the requirements of defensive warfare; and this it is which accounts for the prolonged nature of the present struggle. The majority of the wounds of the lower extremities are shell-wounds received at the batteries and in the streets; and, indeed, I think I may safely say that the majority of wounds received during the present war and now in hospital are shell-wounds—another evidence of the mode of warfare now being conducted, as shell-wounds are, from their extent and severity, more generally fatal than those produced by bullets, and ought therefore to be comparatively less numerous.

There is very little to say about the dressings employed. At l'Hôpital Beaujon the wounds are commonly treated in the first place with cold water, and when suppuration has commenced by alcohol. Glycerine alone is employed when the wound is healing. Irrigation with a weak solution of carbolic acid was, I observed, being employed in one case at La Pitié for a shattered hand. An elegant preparation employed by Dr. Cormack for cataplasms is glycerole, made of starch and glycerine: it may be immediately applied in a cloth wrung out of hot water. During the first siege, when linseed-meal could not be procured, this preparation was largely used. The Ambulance Anglaise furnishes in abundance further evidence—if it be still required—of the great value of *étoupe* or teased oakum, which gained a deservedly popular reputation with everyone who used it during the Franco-Prussian war. Dr. Cormack believes that much of his success is due to the use of this article of dressing.

Of the considerable number of wounded who came under my observation I think it may be better to confine myself more particularly, although not entirely, to a detailed notice of those in the Ambulance Anglaise, as I became more or less familiarly acquainted with them in assisting Dr. Cormack; and they represent, to all intents and purposes, the kind of wounds to be found throughout the ambulances. A knowledge of their individual histories, irrespectively of the surgical interest of the cases, will also enable me to give an idea of some of the non-pro-

fessional aspects of the war, which no outsider has the same opportunity of fathoming and understanding as the ambulance-surgeon.

Among the distinguishing features of the Ambulance Anglaise of Dr. Cormack is the scrupulous care bestowed in keeping the wounds clean by effectively syringing out sinuses and suppurating cavities, and attending to the thorough ventilation and general hygiene of the wards. Each patient is supplied with two sponges, which are to be used only in dressing his own wounds. They are hung in an oiled silk bag above each bed. This general hygienic care will explain the success which up to the present time has attended Dr. Cormack's labours.

Above two hundred cases, sick and wounded together, are either now under treatment, or have passed through Dr. Cormack's care. Twenty-two of the number were not wounded; and seven, when under treatment for their wounds, took diphtheria. One (at Les Ternes), when recovering from a severe gunshot wound of the chest, took measles, and then scarlet fever, but ultimately left in good health. One (not wounded) died of typhoid fever. A man, after a gunshot wound of the leg, had small-pox, and recovered. One death occurred from pyæmia, in a case of wound of the groin and compound fracture of the femur; one death in an *infirmier*, from a piece of shell lodging in the abdomen; one death from erysipelas, in a case where a ball entered close to the anus and came out at the inside of the thigh.

The *infirmiers*, or male nurses, at the Ambulance Anglaise are all convalescent wounded soldiers, who have been retained by Dr. Cormack for the purpose—an experiment which has answered admirably. These men have been wounded themselves, have experienced what it is to suffer, and, from their ambulance experience, understand the wants of the wounded; and they have made all the more excellent and willing servants from knowing that, had they been discharged, they would have most probably been impressed into the service of the Commune—an attention which on their part they would not feel inclined to appreciate. Two of these *infirmiers* had received flesh-wounds. One, a clear-eyed and exceedingly intelligent Mobile of Paris, had been wounded in the thigh on January 7th, while on outpost duty; and the other, also a Mobile, received a bullet in his arm at Trochu's last sortie behind the fortress of Mont Valérien.

There are still remaining in the Ambulance Anglaise a few men who were wounded during the first siege; and all these cases are worth taking notice of. Amongst them is a young fellow aged 22, who was wounded on November 30th in the fight at Champigny. He is the only one out of fifty who survived their wounds in the ambulance at St. Antoine, which contained but one ward, and was opened expressly for the battle; the others died in most instances of pyæmia. This man was wounded by a ball which entered below the knee on the outside and passed out on the inner side of the thigh after extensively fracturing the femur. When he was brought to the Ambulance Anglaise some months afterwards the limb was three inches shorter than that of the opposite side, and there was a sort of cow-tail motion at the seat of fracture, and the sharp end of a large fragment of bone could be felt overlapping the external condyle. The limb was kept in a splint, and his general health was now restored under the influence of good dieting and cod-liver oil.

Another of the old cases was that of a Zouave who had been wounded at Champigny by a ball passing through the shoulder from behind without injuring the joint, but breaking the clavicle. The bullet came out anteriorly some time afterwards, together with several pieces of bone. The lung was uninjured, and he is now recovering. When the news was brought to the ambulance on the evening of Tuesday, May 16th, that the Commune had at length fulfilled its promise that the column in the Place Vendôme should be pulled down, this man became furious and left the premises, declaring that he would not remain another night under a roof that sheltered such *canaille* as the Commune.

JOHN MURRAY, M.D.

[To be continued.]

REPORTS OF SOCIETIES.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, MAY 3RD, 1871.

J. HUGHES BENNETT, M.D., F.R.S.E., in the Chair.

DR. GRAINGER STEWART exhibited a patient with a strongly marked anterior Dorsal Curvature of the Spine. About two years ago, the deformity was so great that the patient nearly died of dyspnoea from pressure of the vertebral column on the aorta, trachea, and nerves, against the sternum. A suitable support was obtained for the head, under the use of which the deformity diminished, and the symptoms improved. The patient is now able to work for his living.

Dr. WATSON showed two pegs of beef-bone which some months ago he had inserted into the mobile ends of a case of Ununited Fracture of the Femur. The pegs were eroded here and there in the most remarkable manner.

Dr. WATSON also exhibited a case of Necrosis of nearly the entire shaft of the Humerus in process of separation. The patient, a lad, had an extensive abscess of the arm, and died of embolism of both pulmonary arteries.

Mr. ANNANDALE showed a Tongue removed for extensive Cancer in the method practised by Mr. Syme. The operation was performed five days before, and the patient was progressing very favourably.

Mr. ANNANDALE also showed some other specimens, among which was a good specimen of Laceration of the Lung from Fracture of Ribs.

Dr. GRAINGER STEWART read a Note of a Case of Inflammatory Bright's Disease, fatal in the third stage. The case was fully detailed from notes taken by one of the house-physicians of the Infirmary, and tended to prove that the phenomena usually regarded as evidence of the presence of contracting kidney may be imitated in the later stages of simple inflammatory lesions.

Mr. ANNANDALE read a brief note on the Treatment of aggravated Cases of Club-foot, and showed a little boy who was wearing the apparatus described. The chief novelty in the machine was an ingenious but expensive mechanical adjustment by which the feet in double club-foot could not only be retained with the soles on the same plane, but also the tendency to inversion of the toes could be corrected and eversion produced.—Dr. JOSEPH BELL, Dr. GILLESPIE, and Dr. HANDY-SIDE, made remarks on the subject of the paper.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, April 22nd, 1871.

JAMES STANNUS HUGHES, M.D., President, in the Chair.

MR. TYRRELL showed the Bladder, Urethra, Ureters, and Kidneys of a man who had been admitted to hospital, a few days before, in a state of partial collapse. On rallying somewhat, the patient stated, that for ten years he had had slight difficulty in passing urine, and had been treated, on more than one occasion, for stricture. On the 13th of April last, he had been drinking, and was much exposed to cold. During the two following days, he had passed no urine. On his admission on the 15th, a catheter was introduced, but only half an ounce of urine was drawn off. The man died at 10 P.M. that night. At the necropsy, no stricture was found, but the middle lobe of the prostate gland was enlarged in a very remarkable manner, projecting from the floor of the urethra after a tri-nipple-like fashion. The bladder was hypertrophied, and its mucous membrane was dark. The ureters were dilated. The kidneys were extensively diseased. Mr. Tyrrell said the points of interest in the case were, first, the early age (45 years) at which the prostatic enlargement had occurred; secondly, the fact that it was rather the *situation* (the middle lobe) than the *amount* of the hypertrophy that gave the lesion its serious character.

Mr. JOHN MORGAN presented an example of Scirrhus of the Pancreas in a woman.

Mr. MORGAN also exhibited the bladder of a woman who had suffered from Chronic Cystitis of two months' standing, a sequence of an attack of gonorrhœa.

CORRESPONDENCE.

BABY-FARMING AND WET-NURSING.

SIR,—I have read with very great pleasure the letter of your able and intelligent correspondent, F.R.C.P., in the BRITISH MEDICAL JOURNAL of May 27, 1871, in which baby-farming and wet-nursing are prominently made subjects of investigation. The brief leader in the same number of the JOURNAL is also highly deserving of commendation for directing the attention of the profession forcibly and wisely to the thorough investigation now going on into the causes of preventable infant mortality, and for its fearless denunciation of the abominable and unchristian system of wet-nursing infants by hirelings—a practice most extensively sustained and carried on by women in every class in life, and alas! perpetuated, it must be acknowledged, under the erroneous, mistaken, and cowardly *unorthodox* authority of many otherwise learned and popular obstetricians.

I have strongly and invariably denounced the indiscriminate employment of wet-nurses through an active professional life of nearly fifty years; and I have in my early career lost some few family patients, as I could not conscientiously divest myself of the idea that such

arrangements were unnatural and unjustifiable, and in the majority of cases wholly unnecessary.

I therefore cheerfully accept your invitation, and most heartily offer the experience of a tolerably long life in support of the views of your correspondent F.R.C.P. That the systematic employment of wet-nurses to suckle one child while another is abandoned, supplies baby-farms, and promotes infanticide, is a fact too self-evident to be denied; but happily we have an alternative which, from my own long experience of its advantages, I can affirm would, in ninety-nine cases out of a hundred, render the services of a wet-nurse perfectly unnecessary. For thirty years, or ever since the infant's bottle has superseded the pap-bowl, in every instance where I have been in attendance as an accoucheur, I have required the nurse to give the new-born infant one meal, at least, of diluted milk slightly sweetened out of the bottle in the course of every four-and-twenty hours. The child might be strong, and the mother healthy and have an abundance of milk, but I advised that this course should be invariably adhered to; and the result after years of experience has fully justified and repaid the few little difficulties in the way of prejudices that had to be overcome. In some cases objections were made to the admixture of mother's and cow's milk, which, it was supposed, would be sure to disagree; in other cases it required a little time and experience to determine whether the cow's milk required but little dilution or a large quantity, say one half of water, and also how much and even what kind of sugar was required to sweeten it; and in some very rare instances, whether a few drops of the solution of carbonate of soda, or even a teaspoonful of fluid magnesia might not be necessary to enable the infant to digest the milk. All these little matters I never found a judicious mother and an attentive nurse unwilling to ascertain by actual practice, rather than relinquish the accomplishment of the main object which I had in view, namely, the preservation of infant life from the earliest stage of its existence, by providing for it another mode of nutrition in case the maternal and most essential source should, by any unforeseen chance or accident, fail in its resources at a time when they were most required. I always expected this lesson to be fully learnt by mother, nurse, and baby during the first month, and I seldom afterwards found it necessary to repeat it, its immense advantages were so manifest. An infant never now need be hungry or thirsty for more than a minute during the mother's absence, while the latter never need rush home in a hurry with her blood heated and her brain on fire lest the baby should be crying its heart out at her cruel absence when it wanted her attention. Again, an infant taught during the month to feed from the bottle is entirely independent of a wet-nurse. When hungry, it will take without a murmur all its meals in that manner; and who can sufficiently appreciate such a blessing? To the infant it may be a matter of life or death. Imagine a mother stricken by sickness, accident, or sudden death, and baby's condition if a wet-nurse has to be hunted for, and must be had at any cost to save its life and prevent starvation, and the first that offers must be accepted, whether the nurse be old or young, married or single, or constitutionally sound and healthy, or even viciously contaminated. With a sensible mother, an obedient attentive nurse, and an infant's bottle and milk, I believe that infants may, in almost every instance, be as well brought up by hand as by suckling.

This may appear a startling opinion to offer, and be hardly credible; nevertheless, I adhere to that opinion, and am justified by long experience in doing so. An infant accustomed to suck from the bottle from the mouth will take its food in that manner ever after, without making the least objection, the nurse taking care that the milk is fresh and of the same degree of temperature and strength; that the milk is sweet, and sweetened as nearly as may be, so that it may always taste the same; and, above all, that the bottle is always fresh washed just before each meal is given. The infant must be noticed and talked to, fondled and smiled at lovingly by whoever nurses it; in a word, it must be *nurtured* as well as nourished and kept warm. If these directions were carefully and faithfully followed, a wet-nurse would be a *rara avis*, for infants could be far better brought up without them than by them, at home or abroad, and the rich man's house would not have to be encumbered with an intolerable nuisance as an inmate, nor the poor man's dwelling be rendered desolate by the absence of his wife and the loss of his child.

Morality would be promoted by the diminished employment of immoral women, and the preservation of infant life instead of its destruction be made, by God's blessing, the gratefully acknowledged occupation even of the baby-farmers.

I am, etc.,

J. BIRD.

Seymour Street, Connaught Square.

ABUSE OF HOSPITALS.

SIR,—As I have done something to call attention to the gross abuse of medical charity in Glasgow, will you kindly allow me to express my

cordial satisfaction with the letters of Mr. Lord and Dr. Rogers in your impression of last week? To convey some idea of the extent to which the pampering of the population with gratis advice is carried on in this city, take the following. There were treated at the Ophthalmic Institution during the past year 2,054; at the Skin Dispensary, 1,200; at the Eye Infirmary, 3,449; at the Glasgow Maternity Hospital and Dispensary, 1,060; at the Royal Infirmary, 23,438; at the University Lying-in Hospital Dispensary, 4,000; at the Medical Mission Dispensary, 18,672; which makes the large sum total of 53,873 (one-tenth of the entire population). But be it observed that this number does not include the patients treated at the Ear Dispensary, the Dispensary for Diseases of the Chest, the Barony Parish Hospital, the Town's Hospital; nor the very large number treated out-door by the district medical officers. Is it, then, to be wondered—the profession in Glasgow being so redolent of the milk of human kindness—that there should exist such a precipitate downward competition, that the senior practitioners are compelled to take paltry fees, and that the juniors find it difficult to make a livelihood? Let philanthropists, for a short time even, cease tormenting the little Indians: there is work to be done at home. “Come over and help us.” I am, etc.,

Glasgow, May 1871.

D. CAMPBELL BLACK, M.D.

MUSCULAR HYPERTROPHY.

SIR,—In your number of May 20th, Dr. George Johnson is severe upon me as the writer of an article in the *Medico-Chirurgical Review* for April, for being so credulous as to pass without comment the statement of an acardiac foetus having lived. The physiological authority relied upon by me, and apparently also by Messrs. Legros and Onimus, was a note to Palmer's edition of John Hunter's works, vol. iii, p. 231. “The foetus has occasionally attained its full growth in the womb, and even lived for some days after expulsion, where not the smallest rudiment of a heart has been observable (see Brodie, in *Phil. Trans.*, 1809, p. 161).” The citation of Brodie's paper would seem, from Dr. Johnson's investigations, to be wrong; and I must do penance to the editor and readers for having used an authority second-hand. But the credulity scarcely deserves the sneer, decorated with a pun, bestowed by Dr. Johnson; inasmuch as, right or wrong, it is shared by Brodie, Meckel, Otto, Palmer, Legros, Onimus, etc. The question of the heart being the sole agent in the circulation of the blood cannot be considered as settled, even though the course of observations inaugurated by Messrs. Legros and Onimus should be as yet inconclusive.

Dr. Johnson finds those who differ from him guilty, not only of credulity, but of “scepticism,” when they venture to hesitate before allowing the conservative tendency of hypertrophy in muscle. As an antidote to what he considers the dangers of such doubts, he quotes Mr. Paget's quotation from John Hunter, who seems to be giving the oft-repeated quotation from Galen about muscles becoming stronger and stronger from “having more to do than common.” To show that all observers do not view the matter in this light, I will make another quotation.

“You may be tempted to inquire, if over-use of voluntary muscle causes atrophy, and under-use also, whilst moderate use leaves our frames well-proportioned, what sort of use it is which induces hypertrophy? I confess that, in spite of the *decies repetita* statements of physiologists, who have been copying one another from the time of Galen, I do not know that any kind of use at all does so, in the sense of making the substance of the muscle larger when measured in a state of rest. Doubtless an actively employed biceps or gastrocnemius will more readily be acted upon by the voluntary nerves, will contract more strongly, and be harder and more prominent when contracted; but I cannot find that it grows at all bigger. I do not absolutely deny the existence of the physiological hypertrophy of muscle; I only say that at all events it is very rare, for I cannot find any instance of it. The most notable example of muscular hypertrophy ought to be an active, well-made, one-legged or lame man; seeing he uses one leg instead of two, it ought surely to be enlarged. Yet in measuring in several instances the remaining leg in a state of rest, I cannot find that the proportion which it bears to the arms is at all different from the proportion in ordinary persons of the same build. And I cannot find that as a rule blacksmiths' arms are out of proportion to their legs. Both are muscular, for none but a muscular man can work at such a trade; and, when excited, the brachial muscles contract more firmly than those of the lower extremity, and are more marked; but they are not disproportionately large when relaxed.”

Clinical evidence seems all against hypertrophied involuntary, as well as voluntary (Dr. Chambers's *Lectures, chiefly Clinical*, p. 454, 4th ed.) muscle being stronger than when of its natural size. In no cases do congestion, from deficient stream of blood through the arterioles, more

frequently occur than in patients with thick lumbering hearts; and there are few bladders whence the urine is expelled with less force than those thickened by hypertrophy. I doubt the conservative tendency of hypertrophy, simply because it does not conserve either the part or the individual. Patients with thinned hearts and bladders live longer, and fare better, than those in a contrary state.

If, instead of expressions of surprise at there being two sides to an open question, my "credulity" and "scepticism" should lead to an experimental demonstration of the actual force of hypertrophied muscle, nobody will rejoice more than

Yours, etc.,

THE REVIEWER.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN.

THE CENTRAL CHAMBER OF AGRICULTURE AND POOR-LAW MEDICAL RELIEF.

THE question of Poor-law medical relief, which was to have been dealt with on the 2nd of May last, and which was adjourned in consequence of the prolonged discussion on Mr. Goschen's Rating and Local Government Bill, will come on for consideration on Tuesday, June 6th, at the Salisbury Hotel, Salisbury Square, Fleet Street, at 12 A.M. precisely. The discussion will be opened by Dr. Joseph Rogers. As this is one of the few occasions on which this question has been entertained by a non-professional meeting, it is to be hoped that those gentlemen who are essentially interested in a more efficient system of Poor-law medical relief will make a point of being present.

THE LINCOLN GUARDIANS AND VACCINATION.

THE Lincoln Guardians are fast getting themselves into a discreditable tangle on the vaccination question. We noticed last week their evasive dealings with the Poor-law Board; they have since still further stultified themselves by resolving "not to reopen the question" at the meeting at which their Committee promised the Board they would "consider it." The authorities at Gwydyr House will not be likely to allow this form of trifling, however lenient they may be to other more serious delinquencies.

LUNACY CERTIFICATES.

THE Kidderminster Guardians have expressed an opinion that the allowance of a guinea for the certification of dangerous lunatics is excessive. It is, however, a question for the magistrates, who have to decide in each case what is reasonable. A guinea is then the minimum which is reasonable, and considering the amount of trouble and responsibility involved, much more is often the minimum which should be claimed and awarded. London magistrates have on more than one occasion within our knowledge awarded three guineas for the visits, examinations, clerical work, and responsibility involved. We are well pleased to hear that the Kidderminster medical officers will decline to accept less than a guinea. The fee of two guineas is quite customary in London for such work, where the patient is brought to the certifier's house, and no attendances are called for either at the patient's house or before the magistrate.

VACANCIES.

BRACADALE, Skye.—Parochial Medical Officer and Public Vaccinator.
CITY OF LONDON UNION.—Medical Officer for the Workhouse Infirmary at Homerton.
DAILLY, Ayrshire.—Parochial Medical Officer.
LUTTERWORTH UNION, Leicestershire.—Medical Officer and Public Vaccinator for the Arnesby, etc., District.
NARBERTH UNION, Pembrokeshire.—Medical Officer for District No. 3.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

STATE MEDICAL RELIEF IN IRELAND.

THE questions propounded by Mr. Corrance, M.P. for East Suffolk, to the Poor-law inspectors and dispensary physicians of Ireland, will, no doubt, form an important topic for discussion at the meetings of the various medical associations, which will take place in Dublin on Monday next, the 5th instant. Our connection with the Poor-law medical

services of the United Kingdom has been so intimate, and we have from time to time had occasion so often to dilate on the advantages and draw attention to the grievances existing under the various systems in the three countries, that we feel it to be our duty to allude to this subject in a categorical manner, and to draw attention to the faults as well the benefits derived from the system of Poor-law relief at present existing in Ireland.

Mr. Corrance's questions are divided into nine heads, each embracing a very important subject.

The first question—whether the Medical Charities Act has enabled the guardians to enforce indoor relief without undue hardship towards the indigent classes—is somewhat vague. There does not appear to be any power given under the Medical Charities Act for enforcing indoor relief at all; it was purely outdoor relief, and that for sick persons only, that the framers of this Act had in contemplation. Instead of diminishing the scope of outdoor relief, the Act distinctly widens the door for its most beneficial administration; for, besides the usual channels for obtaining outdoor relief, the medical officer can order through the relieving officer for "poor persons immediate and temporary relief in food, lodging, medicine, or medical attendance". This has frequently been held to apply to consultations, which are often most necessary both to doctor and patient. Another advantage of the dispensary system is, that a poor person obtaining relief under the Medical Charities Act does not necessarily become a pauper, as in England. The result of this is that, according to the last Poor-law reports of England and Ireland, there were 784,906 outdoor to 157,740 indoor in England, and but 50,257 outdoor to 288,953 indoor in Ireland. The rate per head for outdoor relief in England is £4 5s. *per annum*, and in Ireland £1.

With regard to the expenditure under the Medical Charities Act on the Poor-law Medical Service, which is admittedly most efficient, the total for medical officers, apothecaries, midwives, medicines, medical appliances, rent of dispensary, fees for vaccination, registration, etc., for the year ending September 29th, 1869, was £123,713 for 775,327 patients, or about 2s. 6d. per head. This may in some measure account for the fact that the poor-rates in Ireland are but 2s. 11¼d. in the pound, whilst they are 7s. 0¼d. in England.

This brings us directly to the next question, as to the effect of the Dispensary Act in diminishing pauperism. If we admit, and few, we think, will deny, that the diminution of preventable disease is an important factor in pauperism, there can be no doubt that a most important effect on the diminution of pauperism has been produced by the concentration by the Irish dispensary system of sanitation, vaccination, and registration, in the hands of an intelligent, educated, and well qualified body of men, scattered all over the country, in immediate communication with the Poor-law commission and registration offices, and also, by their position, necessarily the most likely to know of the occurrence of epidemics. This can hardly require clearer proof than at present, as is proved by the contrast of small-pox statistics in England and Ireland. To strengthen it, however, we quote from a return moved for by Mr. W. H. Smith in the House of Commons of the total average mortality in England, Scotland, and Ireland, during the five years ending 1868. The total average mortality in England and Wales was one in forty-three of the population; in Scotland, one in forty-four; in Ireland, one in sixty. Deducting zymotic mortality, the average in England and Wales was one in fifty-six; in Scotland, one in fifty-one; in Ireland, one in seventy-eight.

The fourth query of Mr. Corrance asks whether medical practitioners have any just ground for complaint. This is one that there is some difficulty in answering. The Poor-law medical officers in Ireland include about one-half of the medical profession; and it will be found that a similar state of things exists in England and Scotland. It is a fault in the Medical Charities Act that a "poor person" is mentioned, but not defined. Now, the definition of a "poor person" is most difficult; but this is still further complicated by a belief that exists in Ireland that the doctor's fee there is a pound, a whole pound, and nothing but a pound. This drives many persons to dispensaries, who could very well pay a fee of five shillings. It is injurious to the general practitioner, to the dispensary medical officers, and to the ratepayer, and it is demoralising to the patient. In country districts, it affects principally the Poor-law medical officers themselves, who, because a "poor person" is not defined, have to attend gratis every one who presents a ticket.

With regard to the feeling of the medical profession generally in Ireland as to the working of this Act, if there were some restrictions on the issue of tickets, so that they might not be given indiscriminately, it is, we understand, decidedly in favour of it. We have already directed attention so fully to this subject, that we shall not enter into the falling off of Poor-law expenditure during this *régime*: suffice it to say, that the

Poor-law Commissioners' Report (Ireland) shews that the expenditure has decreased since the passing of this Act.

The faults of the system we have so often adverted to that we will sum them up in a few words. Medical relief should be wholly paid for by the state, not half, as at present. The medical officers should be more independent of boards of guardians and have larger salaries, as it is essential that they should be able to maintain their position as members of a learned profession, and in the performance of their duties a horse and vehicle are often required; their salaries should increase with length of service; they should have promotion in their ranks; and their superannuation should be certain.

In the proposed introduction of the dispensary system into England, we would counsel the promoters of the movement to look to these points; and in the cause of all parties we would advise that, as to the issue of tickets, some system should be established, as some should be gratis, others with a fee marked on them, according to the circumstances of the parties which the issue of the tickets could easily discover, as 2s. 6d., 5s., and so on, this would be the first and most likely means of leading to the formation throughout the country of sick clubs, which would ultimately benefit both the poor, the public, and the medical man.

VACANCIES.

ABBEYLEIX UNION, Queen's County—Medical Officer and Public Vaccinator for the Durrow Dispensary District.

LIMERICK UNION—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Cahircnlish Dispensary District.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, May 26th.

METROPOLITAN CABS AND FEVER.—Mr. Eykyn asked the Secretary of State for the Home Department if the attention of the Commissioners of Police had been drawn to the fact that metropolitan cabs were used for the conveyance of foul linen from the houses of various persons, whereby contagious and infectious diseases might be transmitted, and if it was his intention to direct the Commissioners of Police to put a stop to metropolitan cabs conveying foul linen; if not, what steps he proposed to take in order to put a stop to a practice likely to prove so detrimental to the public health.—Mr. Bruce had made inquiries, but he had failed to obtain evidence of the practice referred to. Two private cabs were used by the authorities of Marylebone Workhouse for conveying persons who were suffering from fever, and also their clothes, and they were used only for that purpose. If such a practice as that referred to prevailed, it would be necessary to take measures to prevent it. When the sanitary laws were revised he would consider the point.

OBITUARY.

GEORGE DONALDSON BRUCE, M.B.,
ROYAL INFIRMARY, DUNDEE.

MR. GEORGE DONALDSON BRUCE died at the Dundee Royal Infirmary under the following melancholy circumstances. He began to complain on the night of May 5th of swelling, with severe pain in the middle finger of his left hand, produced, as he thought, from a poisoned wound received while performing a necropsy a few days previously. The inflammation extended up the finger, involved the hand, and was accompanied by enlargement of the axillary glands. To relieve the pain he began to take chloral hydrate on the same night, and continued taking it at intervals, in large doses, until the morning of May 8th, when he expired. He was seen at 10 A.M., and shortly afterwards he sent to the dispensary for more of the chloral. When last seen, he seemed collected in his senses, and complained of the pain he was enduring. He took about ninety grains of this drug in his last dose, but had made use of a solution containing four drachms from 6 P.M. of the preceding day. Shortly after 11 A.M., Mr. Begg and Dr. Moon went into his bedroom, and they found him lying in bed on his left side. The body was somewhat bent upon itself, and the legs drawn up, the surface of the body livid, the breathing imperceptible, and no cardiac action discoverable. They, assisted by Dr. Allan, attempted to restore animation by artificial respiration and galvanism, but without success. The total quantity of the drug which he took cannot be accurately ascertained, but it is thought that he made use of twelve drachms from Friday night till Monday morning.

The deceased gentleman had only recently been appointed one of the

resident surgeons to the above institution, and had held the appointment for little more than three weeks. He was a native of Dundee, and attended the Arts Classes in Edinburgh for one session, but subsequently enrolled himself as a student of medicine in the Glasgow University, from which he obtained his degrees about a year ago. He was afterwards an assistant, until he received the above appointment. He possessed a great love for his profession, and this, with his knowledge of disease, augured well for his success in after life. Of a genial disposition and gentlemanly deportment, he made many friends, who mourn his loss at the early age of twenty-six.

ALEXANDER DUNLOP ANDERSON, M.D., OF GLASGOW.

DR. A. D. ANDERSON, one of the oldest and most honoured of Glasgow physicians, has died lately at the age of 77. He was a nephew of the late Dr. Anderson, founder of the Andersonian University. He studied in Glasgow, Edinburgh, and London, and became a Member of the London College of Surgeons in 1816, a Graduate of the University of Edinburgh in 1819, a Fellow of the Faculty of Physicians and Surgeons of Glasgow in 1822, and a Fellow of the Royal College of Surgeons of England in 1844. After serving for six years as an assistant-surgeon in the army, in 1820 he settled to practise in Glasgow. One of his sons, Dr. McCall Anderson, having adopted his father's profession, is now Professor of Practice of Medicine in the Andersonian University.

In 1823, Dr. Anderson was elected surgeon to the Royal Infirmary, and in 1837 he was appointed physician to the same institution. He was also physician to the Institution for the Deaf and Dumb. He was the author of a paper on the Treatment of Burns by Cotton—an application of this agent which has since been extended. He also wrote Reports on Surgical Cases, and other papers on professional topics. In 1852, he was elected President of the Faculty of Physicians and Surgeons, and held the office for three years. During his whole career he took a warm interest in the affairs of the Faculty; and that corporation last year evinced their appreciation of his services by requesting him to sit for his portrait, which is hung in the Faculty Hall. He took an active interest in the management of several public institutions, particularly the Andersonian University. Dr. Anderson enjoyed an extensive practice, and was a diligent student both at the bedside and in his study. He was (says the *Glasgow Herald*) endowed with a calm, reflective judgment, was actuated throughout life by the most delicate sense of honour, and always showed himself acutely sensitive in regard to the feelings of others. He was a Member of the Church of Scotland; in his religious opinions, catholic and liberal; in his public and private life, kind and considerate; in every sense of the word, charitable—a true example of a Christian gentleman.

GEORGE H. FIELDING, M.D., F.R.S.

THE late Dr. G. H. Fielding was born at Hull on the 26th October, 1801. He practised for many years in his native town, first as a surgeon and afterwards as a physician in partnership with his father. He relinquished practice for some years, but afterwards resumed it at Tonbridge, where he died on May 24th.

Dr. Fielding devoted a considerable portion of his time to scientific pursuits, more especially to meteorology, and was author of several pamphlets on scientific subjects, one of the most remarkable of which was a paper on "A New Membrane in the Eye", read before the British Association, of which he was a life-member. He was also a member of the British Meteorological Society (to whose proceedings his last paper, "On the Summer of 1868", was contributed), and a Fellow of the Royal Society.

CHARLES IRVING SMITH, M.D.

WE recorded last week the death of Dr. Charles Irving Smith, lately Inspector-General of Hospitals at Madras. Dr. Smith was the eldest son of Lieutenant Michael Smith, formerly of the 12th Native Infantry on the Madras establishment. He was born at Bangalore in 1809, entered the service of the Honourable East India Company in 1831, and in 1835 joined the expedition to Coorg. In 1836 he was appointed Surgeon to the Mysore Commission under General Mark Cubbon, and he held this appointment until the year 1853. During this period the deceased officer held the appointment of Superintendent of the Cattle in the Mysore district, celebrated for drought ever since the days of Colonel Wellesley. He was actively and usefully engaged during the whole period of his service in ameliorating the condition of the hospitals of the Mysore, and especially in Bangalore and the northern division. He introduced successfully the use of ammonia in cases of snake-bite. The report of the first case is to be found in one of the Calcutta

medical journals of the period. On leaving the Mysore Commission, the deceased officer was presented with a very liberal testimonial and a most complimentary letter by the natives, among whom his medical talents were appreciated, and his personal character highly respected. On his return to the Presidency he accompanied the artillery of Whitlock's column to Kirwee. In the year 1862 he was appointed Deputy Inspector-General of Hospitals; and concluded his medical career at Rangoon. The deceased officer retired in 1865,

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following members of the College, having undergone the necessary examinations, on May 22nd, in Anatomy and Physiology, for the Fellowship of the College, were reported to have acquitted themselves to the satisfaction of the Court of Examiners.

Bloxam, John Astley, St. Bartholomew's Hospital; diploma of membership dated November 15, 1864
Churchill, Frederick, Edinburgh and St. Thomas's Hospitals; July 23, 1867
Elliott, Arthur Bowes, Guy's Hospital; April 25, 1867
Freeman, Delamark, St. Thomas's Hospital; April 20, 1860
Hardwicke, Junius, Dublin School; June 3, 1844
Kisch, Albert, London and St. Thomas's Hospitals; November 15, 1865
Roberts, Charles, St. George's Hospital; April 18, 1859
Solly, Samuel Edwin, St. Thomas's Hospital; May 8, 1867
Square, William, St. Bartholomew's Hospital; April 24, 1866
Thomas, William Robert, Dublin School; May 20, 1863
Welch, Francis Henry, London Hospital; May 8, 1860

The following gentlemen passed on May 23rd.

Ashley, Alfred, Guy's Hospital; July 21, 1869
Goodsall, David Henry, St. Bartholomew's Hospital; May 19, 1868
Law, William Thomas, Guy's Hospital; May 16, 1871
Percival, George Henry, Guy's Hospital; May 2, 1871
Tait, Robert Lawson, Edinburgh and Birmingham Hospitals; Jan. 25, 1870

The following gentlemen, who are not members of the College, also passed their primary examination for the Fellowship.

Messrs. George Francis Kirby Smith, Henry Seymour Branfoot, Henry Gordon Cartwright, and Thomas Eastes (Students of Guy's Hospital); Edward Cresswell Barber (St. George's); Edward Sergeant (St. Thomas's); William Garton (Liverpool and St. Thomas's); Gustavus Hartridge (King's College); William Barrow Wall (University College); Arthur Lyne Sobey (St. Bartholomew's); and John Lewtas (Liverpool School).

The following gentlemen passed on May 24th.

Messrs. Walter Edward Hacon, John Lacey Morley, Norman Bruce Elliot, and Thomas Davis Ransford (Guy's); Alfred Pearce Gould, John Appleyard, and Edward Albert Schäfer (University College); John Adams and Edward Jepson (St. Bartholomew's); John William Taylor (Charing Cross); William Allen Sturge (Bristol School); Alfred Pearl Boon (St. Mary's); Arthur Wanklyn (Cambridge, Westminster, and University College); and Charles Robert Bell Keetley (Hull and St. Bartholomew's).

Ten candidates failed, or 27 out of 68.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 25th, 1871.

Burton, Edward Theodore, Spring Hill, Birmingham
Cogman, Charles, 267, New North Road
Johnson, Charles Hargitt, Royal Infirmary, Hull
Lee, Alfred Robert, Great College Street, Camden Town
Monks, Frederick Aubin, Darnley Road, Hackney
Palmer, Henry Drake, Olney, Bucks
Wall, Abiathar, Bishop's Road, Bayswater

The following gentlemen also on the same day passed their first professional examination.

Hosking, Ethelbert, King's College
Laver, Arthur Henry, St. Thomas's Hospital

As Assistants in compounding and dispensing medicines.

Carr, George, Sheffield
Clarke, George Ernest, Norwich
Smyth, Arthur William, Aldborough

MEDICAL VACANCIES.

THE following vacancies are announced:—

BIRMINGHAM NEW HOSPITAL FOR WOMEN—Two Consulting Physicians; Two Consulting Surgeons; Four Acting Medical Officers.
DENTAL HOSPITAL OF LONDON, Soho Square—Assistant Dental Surgeon.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton—Assistant-Physician.
HUDDERSFIELD AND UPPER AGRIGG INFIRMARY—Physician.
LEEDS PUBLIC DISPENSARY—Resident Medical Officer.
LEICESTER INFIRMARY AND FEVER HOUSE—House-Surgeon and Apothecary.
LONDON SCHOOL OF DENTAL SURGERY, Soho Square—Lecturer on Mechanical Dentistry.
MACCLESFIELD DISPENSARY—House-Surgeon.
ST. BARTHOLOMEW'S HOSPITAL—Lecturer on Mental Diseases; Assistant-Surgeon.

ST. THOMAS'S HOSPITAL—Physician; Assistant-Physician; Surgeon; and Assistant-Surgeon.
SALOP INFIRMARY, Shrewsbury—Resident House-Surgeon.
SAMARITAN FREE HOSPITAL FOR WOMEN and CHILDREN—Physician for Out-patients.
UNIVERSITY OF DURHAM, College of Physical Science, Newcastle-upon-Tyne—Professor of Chemistry.
WORCESTER INFIRMARY—Dispenser.

[For Poor-law Vacancies see Poor-law Department.]

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

RUTHERFORD, Thomas, M.B., appointed a Resident Physician in the Royal Infirmary, Edinburgh.
THOMPSON, Reginald E., M.D., appointed a Visiting Physician to the Seamen's Hospital, Greenwich, vice *J. Hughlings Jackson, M.D., resigned.
***VINCENT**, Osman, Esq., appointed Surgeon to the National Orthopædic Hospital, vice *Henry Dick, M.D., resigned.
WAY, Edward Willis, L.R.C.P., appointed a Resident Physician in the Royal Infirmary, Edinburgh.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTHS.

CRIBB.—On May 26th, at Compton Terrace, Highbury, the wife of Arthur J. Cribb, M.D., of a son.
FELCE.—On May 23rd, at Chippenham Road, St. Peter's Park, the wife of Stamford Felce, M.R.C.P., of a daughter.
GRAY.—On May 19th, at Oxford, the wife of *Edward B. Gray, M.D., of a daughter.
LLOYD.—On May 27th, at 42, Finsbury Circus, the wife of T. F. Lloyd, Esq., Surgeon, of a son.
MORRIS.—On May 20th, at Somers Place, Hyde Park Square, the wife of James Morris, M.D., of a daughter.

MARRIAGE.

TURNER, Henry Morten, Esq., Solicitor, to Edith, eldest daughter of Edmund Lloyd BIRKETT, M.D., of Russell Square, at Kingston, on May 28.

DEATHS.

FAWCETT.—On May 22nd, at Cambridge, aged 72, Elizabeth, wife of *R. M. Fawcett, M.D.
HEATON.—On May 20th, at Leek, aged 53, Sarah, wife of C. Heaton, L.R.C.P.Ed.
***HORE**, Henry Augustus, Esq., Surgeon, at Bristol, aged 48, on May 24th.
JONES, John William, Esq., Surgeon, of Llanbede, Talybont, Carnarvonshire, aged 67, on May 22nd.
LOWE, William Thomas, Esq., Surgeon, at Highbury Hill, aged 62, on May 27th.
***SMITH**, Charles Irving, M.D., late Inspector-General of Hospitals, at Bath, aged 62, on May 21.
WILLIAMS, David, M.D., at Cheltenham, aged 83, on May 24th.

CARMARTHENSHIRE INFIRMARY.—The last annual account shewed a deficiency of £74; and Mr. Robert Crawshay, of Cyfarthfa, upon hearing of it, sent to the secretary a cheque for the amount.

BOOKS, ETC., RECEIVED.

Thoughts on Poverty and Pauperism. By H. C. Tucker, C.B. London: 1871.
The One Hundred and Third Annual Report of the General Infirmary at Leeds.
Institution for the Education, Training, and Maintenance of Idiotic and Imbecile Children: and Lucan Spa Asylum for Lunatic Patients of the Middle Classes, etc. Dublin: 1871.
Handy Book of the Treatment of Women's and Children's Diseases. By Dr. Emil Dillnberger. Translated by Patrick Nicol, M.B. London: 1871.
The Rapid Cure of Aneurism by Pressure. By W. Murray, M.D., M.R.C.P. London: 1871.
The Surgery of the Rectum: being the Lettsomian Lectures on Surgery delivered before the Medical Society of London. By Henry Smith, F.R.C.S. Third edition. London: 1871.
The Annual Report of the Broadmoor Criminal Lunatic Asylum for the year 1870. London: 1871.
On the Writing of the Insane: with Illustrations. By G. Mackenzie Bacon, M.D. London: 1870.
On the Curability of Cancer, and its Medical Treatment without Surgical Operation: with Notes upon a New Mode of Treatment of Caries of the Bones and Syphilis. By Dr. G. Von Schmidt. London: 1871.
Annual Report on the Health of the City of Glasgow for the year 1870.
The Use of the Laryngoscope in Diseases of the Throat: with an Appendix on Rhinoscopy. By Morell Mackenzie, M.D. Third Edition, revised and enlarged. London: 1871.
The Bombay Health Officers' Report for the first quarter of 1871.
A Lecture on Ovariectomy. By Sampson Gamgee, F.R.S.Edin. London: 1871.
On the Pathology of Club-foot and other Allied Affections. By James Hardie, M.D. London: 1871.
The Thirtieth Annual Report of the Dental Hospital of Birmingham.
On some Disorders of the Nervous System in Childhood: being the Lumleian Lectures delivered at the Royal College of Physicians of London in March 1871. By Charles West, M.D. London: 1871.
Good Vaccine Lymph: an Inquiry as to what extent it is desirable to employ Heifer Vaccination: with details of that method. By John Greene, L.C.P.(Ed.) Birmingham: 1871.

OPERATION DAYS AT THE HOSPITALS.

MONDAYMetropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAYGuy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAYSt. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAYSt. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopaedic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAYWestminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic Hospital, 2 P.M.

SATURDAYSt. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Epidemiological Society,—Entomological Society.

WEDNESDAY.—Obstetrical Society of London. 7.30 P.M., Council Meeting. 8 P.M., Dr. Meadows, "On Pelvic Hematocele" (adjourned discussion); Dr. Tilt, "On the Diagnosis of the least known varieties of Uterine Inflammation"; and other papers.—Royal Microscopical Society, 8 P.M.

THURSDAY.—Royal Society.

FRIDAY.—Royal Astronomical Society.

EXPECTED OPERATIONS AT THE HOSPITALS.

WEST LONDON HOSPITAL, Thursday, June 8th, 3 P.M. Lithotomy by Mr. Teevan.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with *halfpenny* stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

OUT-PATIENT HOSPITAL REFORM.

SIR,—Since last acknowledging receipt of donations for the above object, I have received the following sums.

ceived the following sums.

	£	s.	d.		£	s.	d.		
Mr. Bowman, F.R.S.	-	1	0	0	Dr. Baumler - - -	-	0	2	0
Mr. Gant - - -	-	0	5	0	Dr. Dickenson - - -	-	1	1	0
Dr. Douglas Powell - -	-	0	5	0	Dr. Theodore Williams	-	0	5	0
Dr. Stewart - - -	-	0	10	6	Dr. Dobell - - -	-	0	10	0
Dr. Ford Anderson - -	-	0	10	0	Dr. F. Churchill - -	-	0	2	6
Mr. J. Hutchinson - -	-	1	1	0	Dr. Fuller - - -	-	0	10	0
Mr. Adams - - -	-	1	1	0	Dr. Hickman - - -	-	0	5	0
Mr. Arnott - - -	-	0	5	0	Dr. Dudley - - -	-	0	5	0
Mr. T. Smith - - -	-	1	1	0	Mr. Owen - - -	-	0	5	0
Dr. Cholmeley - - -	-	0	10	0	Mr. Henry Smith - -	-	1	1	0
Dr. Burrows - - -	-	1	0	0	Mr. Rogers - - -	-	0	4	0
Dr. Day - - -	-	2	2	0	Mr. Jabez Hogg - -	-	0	10	0
Dr. Tilbury Fox - -	-	1	1	0	Mr. Brownfield - -	-	1	1	0
Mr. Critchett - - -	-	1	0	0	Mr. Atkinson - - -	-	0	5	0
Dr. Power - - -	-	0	5	0	Mr. Clifton - - -	-	0	10	0
Dr. Glover - - -	-	0	5	0	Per Dr. H. Smith -	-	0	5	0
Dr. Anstie - - -	-	0	5	0	Dr. Coates - - -	-	1	1	0
Dr. Thorowgood - -	-	0	5	0	Dr. Langston - - -	-	0	5	0
Mr. Middlemist - -	-	0	5	0	Mr. Barrett - - -	-	0	10	0
Dr. Burdon Sanderson	-	0	10	0	Mr. Lord - - -	-	0	10	0
Dr. Buzzard - - -	-	0	10	0	Mr. George Wight -	-	0	5	0
Dr. W. Ogle - - -	-	1	0	0	Mr. James Workey -	-	0	10	6
Mr. Weedon Cooke -	-	0	5	0	Stamps, etc., for Reports	-	3	15	0

Up to the present time, the total receipts have been £48:0:6, and the total payments £49:4:10, to which have to be added liabilities to the amount of about £3, leaving a present deficit of £4:4:4. It is obvious that the last appointed Committee cannot undertake the responsibility and expensive work entrusted to it on such terms; at all events, I certainly must decline the office of cashier, unless those interested in the work will come forward to help it. This is the last appeal with which I shall trouble you or your readers, unless a liberal response is made; and I must say that I think it will be a grievous shame, as well as a great mistake, if the labour bestowed by the late Committees is thus to come to nought. The responsibility of such a failure will, at all events, not rest with them nor with me.

I am, etc., A. MEADOWS,
George Street, Hanover Square, May 1871.

DR. DAVID PAGE's paper on the True Nature of Skin-Grafting, published last week, was read at the last meeting of the Cumberland and Westmorland Branch of the Association.

BEDFORD asks: "Which is the best book to obtain the names, both common and technical, of insects found in England, etc.; also where it is to be had, and the price?"

T. B. M. "will feel thankful if any of our readers will recommend him the best work on Medical Pathology; also the best method of opening the heart at a *post mortem* examination."

C. H. J. (London), V. J. (Wolverhampton), P. B. (Glasgow), and other correspondents, are reminded of our printed notice, and are requested not to forward stamps with MSS. The disposal of the stamps becomes a source of embarrassment.

To comply with the request of our Liverpool associate, would be tantamount to the indefinite postponement of the publication of his paper. The more quickly he forwards it, the earlier it will appear. Its insertion has been promised; and the earliest opportunity of redeeming the promise will be taken.

PUBLIC VACCINATOR (Dover) misses the point of Pathologus's suggestion. He wishes an independent control, of the results of vaccination. We do not concur with Pathologus in thinking this necessary or practicable. But, undoubtedly, there has been a great deal of very careless vaccination by public and private vaccinators.

AMBULANCE CARRIAGES.

MR. S. W. NORTH (York).—We are informed by Dr. Murchison that the ambulances of the Hospital Carriage Society were supplied by Kesterton, Long Acre, and Woodall, Orchard Street. Those of the latter maker were, we believe, most approved. Plans and estimates can be obtained from either.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following questions in Anatomy and Physiology were submitted to the candidates for the Diploma of Fellow, on May 19th. 1. What parts are in immediate relation with (1) the obturator internus, and (2) the obturator externus muscles?—2. Describe the development of the human brain, from its first appearance in the embryo up to the full period of intra-uterine gestation, and compare its several stages with the adult brain in the classes of vertebrata.—3. Give the dissection required, and mention, in the order in which they appear, the parts that must be removed to expose the otic ganglion; describe its relations and the nerves connected with it.—4. Describe the structure of a "Malpighian body" of the spleen; and state the evidence from which it is concluded that the spleen is concerned in the elaboration of the blood.—The following questions in Pathology, Therapeutics, and Surgery, were submitted to the candidates at the second examination for the Diploma of Fellow of the College on May 25th. 1. Describe the diseases which cause undue prominence or protuberance of the globe of the eye; their diagnosis, treatment, and prognosis.—2. Mention the symptoms of loose cartilage in the knee-joint, and the treatment which should be pursued for their relief. Describe the operation which might be performed for the removal of a loose cartilage, and the circumstances which would warrant such an operation, or render it inadvisable.—3. Describe the nature, seat, and diagnosis of the diseases which may render the operation of colotomy expedient. Mention the steps of the operation, the after-treatment, and probable prognosis.—4. Describe the different modes in which union of fractured bones is accomplished; state the conditions, constitutional or local, under which union may be impeded or prevented.—N.B. All four questions must be answered.

AN OLD ASSOCIATE.—Longmore's Treatise in *Holmes's System of Surgery*. A separate treatise on military surgery up to the knowledge of the day is, we think, a desideratum. The publication of Professor Longmore's lectures at Netley would probably meet it.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, May 27th; The New York Medical Record, May 18th; The Boston Medical and Surgical Journal, May 18th; The Madras Mail, March 20th; The Shield, May 27th; The Philadelphia Medical Times, May 10th; The Philadelphia Medical Independent, May 13th; The Illustrated Newspaper, May 27th; The Morning Mail and Irish Advertiser, May 23rd; The Gravesend and Dartford Reporter, May 20th; The Kidderminster Shuttle, May 13th; The Lincolnshire Chronicle, May 26th; etc.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. C. Handfield Jones, London; Dr. T. L. Brunton, London; Mr. S. W. North, York; Dr. J. B. Gill, Dover; Mr. E. J. Worth, Millbrook, Cornwall; The Rev. Professor Haughton, Dublin; Dr. D. Campbell Black, Glasgow; Dr. Henry Barnes, Carlisle; Mr. G. H. Fielding, Tunbridge; Mr. S. S. Alford, London; The Secretary of the Obstetrical Society; Dr. J. Crichton Browne, Wakefield; Mr. S. C. Noble, Kendal; The Secretary of the Royal College of Physicians, London; Mr. Startin, London; Mr. T. H. Bartleet, Birmingham; Mr. Charles Roberts, London; Mr. W. B. Kesteven, Holloway; Dr. R. H. Taylor, Liverpool; Lieutenant-Colonel Loyd Lindsay, London; Dr. MacPherson, London; Mr. Ingalls, London; Dr. C. F. Moore, Dublin; Mr. F. Cross, London; The Secretary of the Pathological Society; Mr. Coles, London; Mr. McMahon, Deeping Gate; Mr. Kemball Cook, Greenwich; Dr. H. J. Yeld, Sunderland; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Mr. A. B. Steele, Liverpool; The Secretary of the Clinical Society; Dr. G. B. Meade, Newmarket; Dr. G. H. Philipson, Newcastle-upon-Tyne; Mr. A. Fleischmann, Cheltenham; M.D. Edin.; Our Dublin Correspondent; Mr. W. W. Reeves, London; The Secretary of the Royal Medical and Chirurgical Society; Dr. J. Hughlings Jackson, London; T. B. M.: Miss Mary Anderson, Edinburgh; Mr. F. Churchill, London; Dr. Mapother, Dublin; Mr. H. Marks, Dublin; Mr. Arnold, London; Dr. Petrie, Liverpool; Dr. Hardie, Manchester; Dr. Drummond, Oldham; Mr. O. Vincent, London; Dr. Clifford Allbutt, Leeds; Dr. Lombe Atthill, Dublin; Dr. Falconer, Bath; M. T. W. Williams, Birmingham; etc.

THREE LECTURES

ON

THE PRINCIPLE OF LEAST ACTION IN NATURE,
ILLUSTRATED BY ANIMAL MECHANICS.*Delivered at the Royal Institution of Great Britain.*

BY THE

REV. SAMUEL HAUGHTON, M.D. Dubl., D.C.L. Oxon., F.R.S.,
Fellow of Trinity College, Dublin.

LECTURE II.—Tuesday, May 30th, 1871. (Concluded.)

Geometrical Classification of Muscles found in Animals.—Application of the principle of Least Action to several forms of Muscle, demonstrating the possibility of "predicting" Animal Structures by Mathematical Calculations similar to those used in Astronomy and the other exact Sciences.—Special Illustrations from the Limbs of the Tiger and Wings of the Albatross.

I HAVE selected, in illustration of triangular muscles, the triangular muscles of the fore and hind limbs of the tiger. I have selected the tiger, because he is the strongest and the handsomest animal with which we are acquainted; and strength and beauty, as long as the world lasts, will always command attention and regard. The tiger is stronger than the lion. I should be sorry to disturb the traditions of childhood which have led any one present to regard the lion as the king of the beasts. I am sorry, however, to say that the lion is a humbug. He has a big mane, and looks grand, but he is very inferior to the tiger. He is like some human beings I am acquainted with—there is more in their appearance than you find carried out on intimate acquaintance. My reason for saying that the tiger is stronger than the lion, is a reason that will interest you. I find that the cruel Emperor Titus, A.D. 80, carried the spectacles in Rome so far as to have Bengal tigers imported from India, and compelled to fight the Numidian lions imported from Africa. In his native haunts in India, the Bengal tiger never meets the African lion. The poor Babylonian lion of Asia is a very small animal compared with the African lion; and I would back two Newfoundland dogs to fight him. The tiger sometimes meets this lion in the north of India, and it is well known that he destroys him. The Emperor Titus determined to try whether the Bengal tiger could or could not fight the large and noble African lion. The poet Martial, in his 18th epigram, *De Spectaculis*, has recorded the fact that tigers and lions fought in the amphitheatre during the reign of Titus, and that the tiger always killed the lion. There are some points of interest in the quotation, which I can verify. Martial describes the tiger as naturally a gentle animal, accustomed, he says, to lick the right hand of the keeper that trusted him; but when he came to Rome, and, as Martial observes, learned bad manners amongst the civilised Romans, he lost his native gentleness, and acquired a degree of ferocity that he never possessed in his native woods. The words he uses are:

"Lambere securi dextram consueta magistri
Tigris ab Hyrcano gloria rara iugo
Sæva ferum rabidâ laceravit dente leonem:
Res nova, non ullis cognita temporibus.
Ausa est tale nihil, sylvis dum vixit in altis,
Post quam inter nos est, plus feritatis habet."

Accidents have happened, also, in some of our English menageries, where the barrier between the cage of the tiger and the lion has broken down, and the animals have fought. The records of all these cases, I believe, show that the tiger, if in good condition, invariably kills the lion when compelled to fight. But the best proof I can give you of the superiority of the tiger, is an experience of my own. What we learn for ourselves makes a stronger impression upon us than what we read from books. I have been for many years Secretary of the Zoological Gardens in Dublin, and have had a large number of tigers and lions under my care. Now, it occasionally happens that with such creatures as these, the claws of the fore paw, from want of natural exercise in scratching trees, like cats, grow into the foot, and cause the animal great pain, ultimately producing death by gangrene, unless the claws be removed; therefore it is not an unusual thing to look after a tiger's toilet, and pare the nails for him from time to time; but it is not an operation that is at all so satisfactory in the actual performance as it appears at first sight. I have performed it repeatedly both on tigers and on lions; and I can give you as the result of my experience, that while it requires eight men to hold down a tiger, five men will easily hold the largest lion. This greatly struck me when I ascertained it; and having the opportunity of examining after death my two friends whose nails I cut, I found, in the cross-sections and weights of the muscles, measure-

ments and proportions giving the tiger somewhat more than fifty per cent. of strength greater than the lion; which quite confirmed my observation.

But the operation of cutting the tiger's claws was accompanied, in the first instance that I tried it, with some curious incidents that you might like to hear; in fact, if they had turned out somewhat differently from what they did, I should not have had the honour of delivering this lecture before you to-day. I collected eight men to assist me; we placed a large rope round the tiger's neck with a stop-knot; a certain number of men held this, and the other men held the tiger's claw that was to be cut, with a rope which lifted the wrist off the ground. They were instructed carefully to keep the tiger's foot off the ground, for the tiger knew well what they were about. He watched the opportunity of putting the sore foot on the ground and slapping me with the other foot; but as long as the sore foot could be kept off the ground and his head against the bars of the cage, he was compelled to press with his

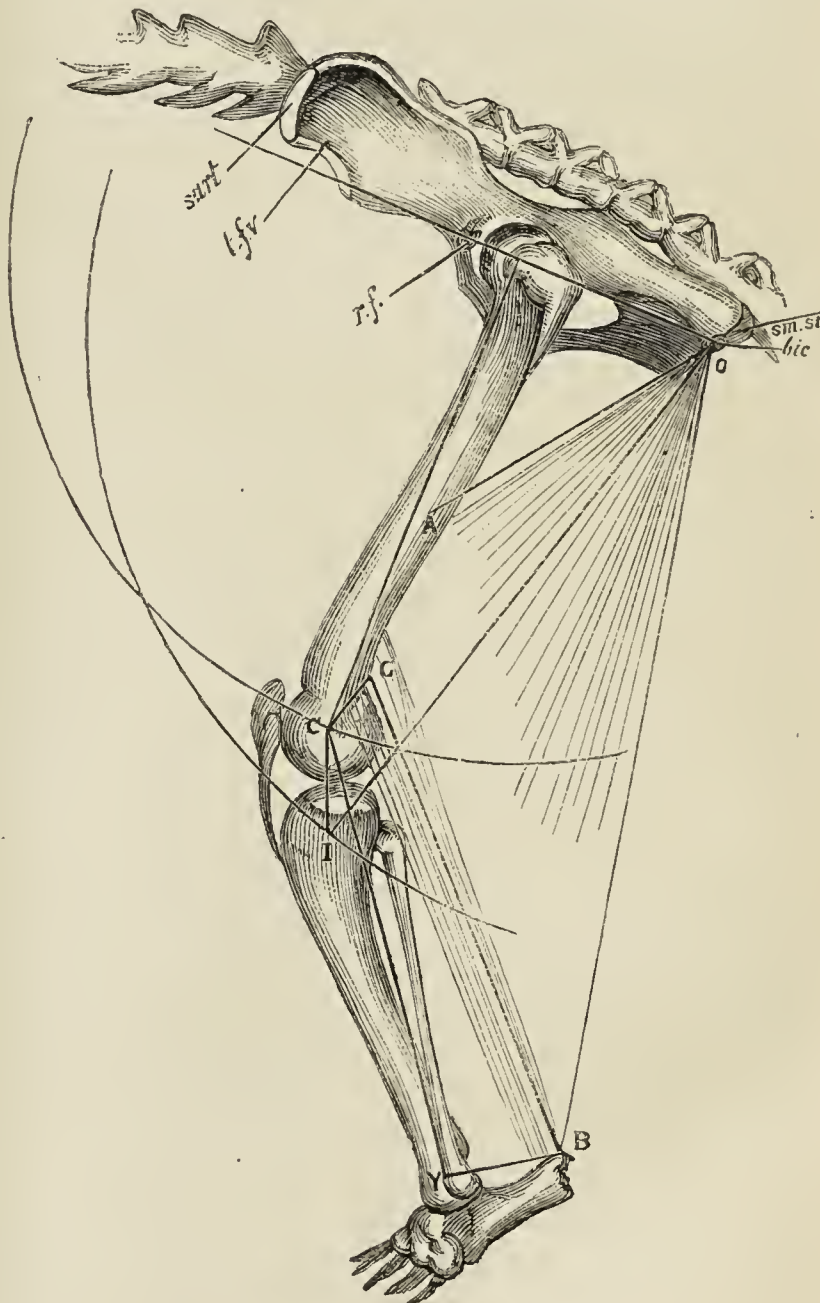


Fig. 7.

free paw against the ground to save himself from being choked, and I was quite safe. But, unfortunately, in the middle of our proceedings his companion tigress thought she would interfere, and she behaved not unlike the manner in which Jael the wife of Heber or Judith of Bethulia would have done: she came over to see what was going on, put her paw out through the bars, and struck my hat. I was proceeding to cut the tiger's claw when I felt the paw of the tigress at the back of my hat. In a moment, the body of eight men resolved itself into its component parts. Seven of them were cowards; but one was a brave man who had led the celebrated charge of the Grenadier company of the 29th Regiment at the battle of Chillianwallah for the purpose of spiking the guns of the Sikh battery, and was promoted on the field by Lord Gough. He kept his hold of the tiger, but,

to my astonishment, I saw the seven men running like drops of mercury in all directions. The tiger had thrown up the sliding door of the cage, and there was I face to face with him. I saw I was instantly to be killed, but my friend held on by the rope and puzzled the tiger. The animal then backed to the far end of the den, and couched upon its haunches to make a spring at me through the door. I naturally put up my hand and closed the door. The tiger rushed at the bars of the cage and broke his teeth with fury on the bars, because he was prevented from attacking me. I was not to be baffled. I collected the seven cowards again and brought them into the house. I then took the key, locked the door, and put the key in my pocket. "Now, boys", said I, "you ought to be ashamed of yourselves; you are not worthy of being called Irishmen at all. If any accident happens the tiger will eat me first, key and all, and he will sup off the rest of you at his leisure, so hold on by the ropes." We got the ropes on again, and I cut the tiger's claw; and thus I developed the greatest possible amount of muscular work that could be got out of seven cowards. After the work was over, a very remarkable scene happened. The tiger threw himself on his back and began to purr, and he made unmistakable signs that he wanted me to come over. I went over, and he put his paw with the claws in against the bars to make me rub it. He was not satisfied with that, and I patted him on the head, and put my hand to his mouth and allowed him to lick it; he also allowed me to examine the foot which I had hurt so much while operating upon him—thus carrying out to the most minute particular the character given of the gentle tiger until he came into contact with civilisation, given by Martial: "*Lambere securi dextram consueta magistri.*"

It is impossible for me to go into all the details; they must be left for future development; but I will say in brief that the principle of least action, when applied to the limbs of a tiger, require two conditions—one in the fore paw, and the other in the hind limb. In an action such as the tiger makes with the back stroke of the paw of the fore-limb, we have combined groups of muscles acting upon the arm and the fore-arm; and it is easy to prove by the principle of least action that when the resultant of the great muscles, the latissimus dorsi and the teres major, that act upon the arm, becomes perpendicular to the humerus, at the same moment of time the triceps muscle must be perpendicular to the line joining the olecranon process of the ulna with the centre of the elbow-joint. The most powerful stroke that the arm of a strong man can give is the back-stroke, as every swordsman knows. The back-stroke of a guardsman will cut a leg of mutton in two. The back-stroke in rackets is much more powerful than the direct stroke. It is made by bringing the muscles of the fore-arm and the humerus into co-ordination. All the efforts of the racket-player and the swordsman would not produce this effect unless the law were followed, that these two angles which have no connection with each other passed through ninety degrees together. We have, then, the very curious fact that the principle of least action in a tiger's fore-paw or arm requires that these two angles, which have no relation to each other, varying in magnitude at every moment, must, to produce the maximum effect, pass through ninety degrees at the same moment; and we find that Nature accepts the consequence. I know no animal in which this law is not carried out, and a corresponding law to which I shall now call attention in the hind-leg. In the hind leg the line *O...sart* (Fig. 7) joining the centre of the hip-joint with the tuber ischii, becomes at right angles to the resultant of this biceps femoris muscle, whether triangular or prismatic, at the same moment that the muscles of the calf (*G B*) become perpendicular to the line (*B Y*) which is drawn through the centre of the ankle-joint. In the case of the hind-leg the arrangement skips a joint. In the fore-arm the shoulder is related in this remarkable manner to the elbow-joint. In the hind-leg the hip-joint is not related to the knee-joint, but to the heel; and those two angles, which have no necessary relation whatever to each other, made by one group of forces at the hip-joint, and another group of forces quite distinct from them at the heel, pass through ninety degrees together—one of the most remarkable instances on record of the skill, contrivance, and foresight, with which the frame of animals has been constructed.

You have seen on board a large steamship an engineer with a little can of oil in his hand putting his head in among moving bars of iron, poking his can of oil among little joints; and you feel conscious that if you attempted to do it you would lose your life. That man knows to the tenth of an inch the motion of every bar—when it comes, when it retreats, when it comes forward again; he knows that he can rely upon the motions of the bars with certainty to the hundredth part of an inch. When we see these motions regulated by the intelligence of the engineer who contrived the machine, describing their angles, and passing through each angle at the exact moment the engineer intended, no person is fool enough to believe that there is not contrivance and design. I am ashamed to say there are intelligent men who can look upon

similar structures more wonderful in contrivance in the world of nature, and not recognise the hand of Him who made them.

Before parting with this subject, I may be allowed to give a word of advice to some of those who hear me. I have shown you that these two angles pass through ninety degrees together; therefore, any arrangement of an artificial kind that interferes with the angles passing through ninety degrees together would be most injurious. I am told that it is now the habit, or has been the habit, of ladies in America—perhaps in this country—to wear high-heeled boots for the purpose of producing the Grecian bend. I am not acquainted with the subject, but the ladies present will know whether this be the fact. I would caution you against the practice. You shorten, by high-heeled boots, the distance between the points *B* and *G*; you prevent, therefore, the beautiful play of angles and joints from coming into effect, and you sacrifice in the movement of the limb what you gain in supposed grace of figure. If the practice continue, I should expect that our young ladies of some future period, with the bright colours of their heads and the development of the tendons in their feet, will present an appearance not unlike the flamingos that strut about the gardens in Regent's Park.

I now come to my last and most interesting application in this lecture of the principle of least action. I have shown that a quadrilateral muscle becomes occasionally a skew muscle, like the skew bridge known to engineers. Every line in it is straight, but the whole forms a curved surface, and any plane drawn across that surface would give me a conic section. (Fig. 6.) I come now to the great pectoral muscle in the wing of the bird. I have before me two diagrams that have cost me many hours of hard work. One of them represents the wing of the albatross (Fig. 8). Here is the socket, *S*, or, as anatomists

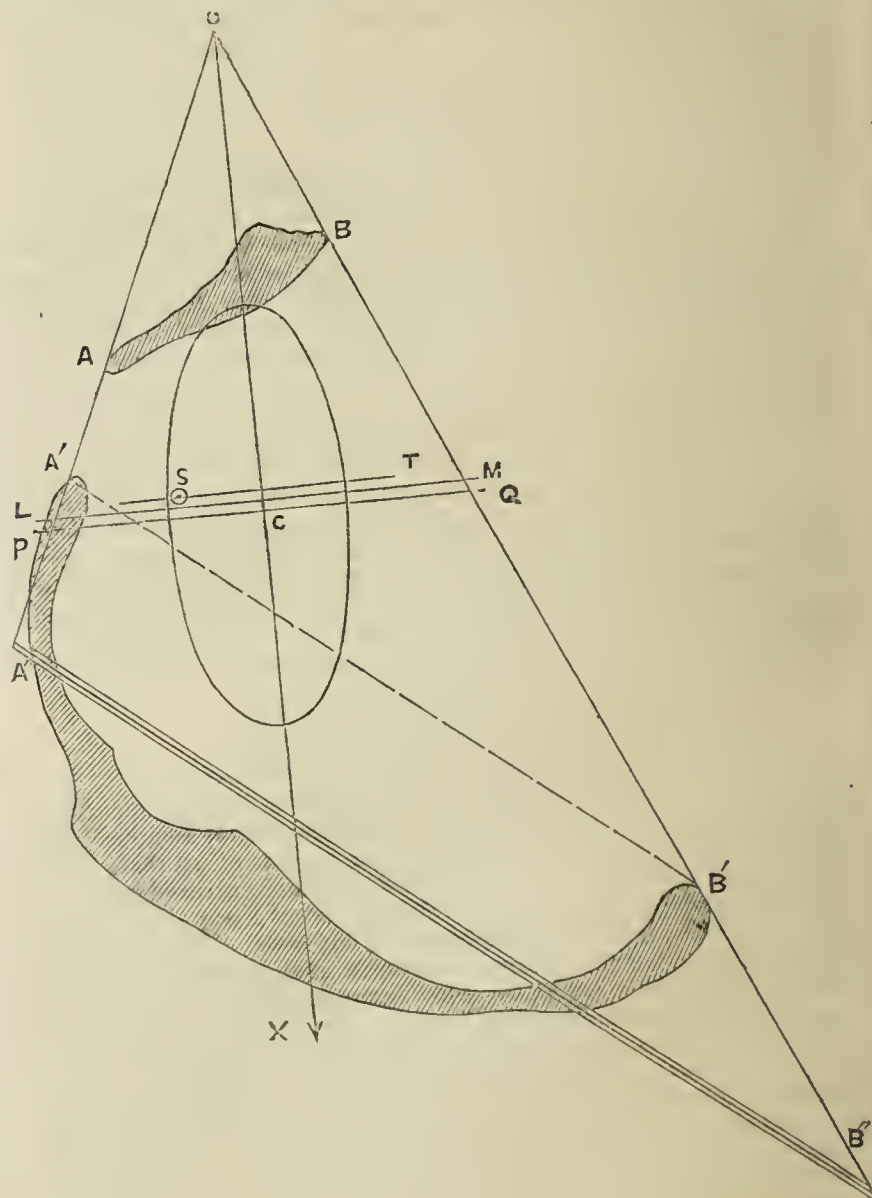


Fig. 8.

call it, the glenoid cavity, of the wing; *A'A''* is the furcular clavicle; *A'B'* is the sternum; this curved line, *A'B'*, represents the origin of the great pectoral muscle; and *AB* is the insertion of the pectoral muscle into the humerus, placed so that this insertion shall occupy the same plane as the origin of the muscle. I believed that

I had succeeded in carrying the principle of least action to such a point that I should be able to make a prediction. And here I would call your attention to the important fact that no science whatever is worthy of the name, no science is anything but a collection of facts, which is not able to predict consequences—when certain facts are given, to predict other facts; and in proportion as any science possesses the high prerogative of being in a condition to predict from a certain number of conditions other conditions, it deserves the name of an exact science. In other words, it has come under the control of geometry, the great queen and mistress of all sciences. I selected for the purpose of prediction the wing of the bird, and I said to myself, "I can trace accurately the origin of this great muscle, I know its insertion, and I will try and predict an unknown thing about it; viz., the position of its axis of rotation." Let A'B' be any curve whatever observed in Nature, as the origin of the pectoral muscle of a bird; let AB be any other curve observed in Nature representing the insertion of the muscle in the arm. Then draw A'A B'B to meet in O. Given these two curves, I was able to draw the bisector of the angle AOB. I was also able to draw a certain right line, such as PQ or LM, at right angles with that bisector, and to say, if the muscle of the bird, which is a skew quadrilateral muscle, contracts so as to produce the maximum advantage that it can produce, the axis of rotation round which the wing of the bird must turn will be a particular line that I can calculate. I shall not trouble you with the details of the calculation; they would be very uninteresting to an audience like this. You will possibly see the importance of them when I tell you that they consist in finding a certain ellipse—the ideal ellipse as it exists in the albatross I have drawn. There is an elliptical curve which is to be calculated, and I say that the minor axis of that ellipse is the axis of the greatest effect, or the axis of least action round which the wing of the bird revolves. The black axis ST represented on the diagram is the actual observed axis as I have found it in the wing of the albatross; and the red axes, such as PQ and LM, represent the axes found by me by successive approximations, each coming nearer and nearer to the real axis. I chose the albatross for the following reason. Just as I believe the tiger to be the most worthy object of study in considering the question of the arrangement of the limbs of quadrupeds, from its great strength and size and activity, so I believe the albatross to be the most wonderful of all birds with which we are acquainted, and to be worthy of study. Its habits have been described by Portuguese navigators; and they have been described by Coleridge in the beautiful poem *The Ancient Mariner*. The albatross possesses very remarkable peculiarities. He seldom or never flaps his wing, but his soaring power in the air is prodigious. When he has once attained a certain height, he is so beautifully constructed that he is able to keep that height, or at least to lose less of it than any other known bird. The only other bird in the world to compare for a moment with the albatross in the power of soaring is the condor vulture. I have here a drawing of the wing of the condor vulture and the wing of the albatross. Any one looking at the diagram will see that, if I took a pair of shears and cut off the white feathers from the wing of the vulture, I should reduce it to the wing of the albatross. This was my main reason for choosing the wing of the albatross as a type of the perfection of flying. I studied the wings of the eagle, the hawk, the vulture, and other birds; and I found there was a sort of type underlying them which corresponded with the wing of the albatross. I can demonstrate, but will not trouble you with the demonstration now, that the albatross wing contains all the conditions for merely soaring. It sleeps upon the water at night; it feeds upon small floating molluscs and crustaceans which it finds in the sea, or gladly accepts from passing sailors pieces of biscuit offered from the ships. When morning comes, the albatross rises slowly and laboriously from the water. He is described by the ancient Portuguese sailors as running upon the sea, because he rises so slowly in the air that for nearly half a mile he attempts to rise from the surface, and his feet touch the waves. Slowly and painfully our poor bird rises to a height of about a thousand feet, and he seems content with this thousand feet; he has the power of losing as little of it as any known bird. If a ship be in sight, the albatross follows the ship; but, if no ship be in sight, he is cunning enough to look out for another albatross that sees a ship. If he sees another albatross at a distance moving in a particular direction, he knows that it sees a ship, or sees an albatross that sees an albatross that sees a ship; and so, before ten o'clock in the morning, the ship is surrounded with flying albatrosses, soaring most gracefully in the air. Woe betide the sailor that shoots an albatross! I was five years in obtaining this creature for dissection. Through Mr. Moore, the curator of the Museum in Liverpool, I was put in communication with a number of sea-captains going round Cape Horn. They told me that there was great superstition among the sailors about the albatross. They all remembered the story of the Ancient Mariner, and the passage

into the "silent sea", where "slimy things with legs did crawl". You remember Coleridge's words about the bird and the prejudices connected with it.

"And the good south wind still blew behind,
But no sweet bird did follow,
Nor any day for food or play
Came to the mariner's hollo!"

"And I had done a hellish thing,
And it would work 'em woe:
For all averred I had killed the bird
That made the breeze to blow."

In spite of these difficulties, I obtained my albatross, and made my calculation. I was an hour dissecting the pectoral muscle, another hour making measurements upon it, and another hour transferring those measurements to paper for further measurement. After that was done, it cost me five hours of incessant labour with logarithmic tables to take out the figures and calculate the red line PQ, which represents my first approximation; and the second approximation, LM, required ten hours of numerical work. I have applied equal labour to every one of these six birds; viz., albatross, grebe, macaw, wood-pigeon, pheasant, and heron. My calculated red line represents what I believed would be the position of the axis of the wing corresponding with the law of least action. It comes, in every case, as you observe, uncommonly close to the black axis, ST; it is sometimes above it, and sometimes below. It presents no suspicious nearness to the black axis, and there is a characteristic about it that I must ask your permission for two minutes to dilate upon. It is a characteristic of every real discovery that, if we make closer and closer approximations, we shall find nearer results to the true, but we shall always find certain residual phenomena left behind which our theory will not explain. Now, in this case of the vulture I have a residual phenomenon. The vulture has not only to soar like the albatross, but he has to possess a power which the albatross does not, of rising in the air in the course of an hour or two, from the level of the Pacific Ocean to the heights of Cotopaxi. He has, therefore, two problems to solve; he has to soar, and rise to a height rapidly. There is hardly any other bird in which, if we studied their habits, we should not find that there were two or three objects to accomplish with their wings. In this calculation, I have entirely neglected those subsidiary objects; but in the case of one or two birds like the vulture, where I have made the calculation and brought in the two conditions, I have succeeded in producing the red axis of my ellipse so as to become identical with the black axis, ST. Hence, whether we take into account the other objects which wings may have to accomplish, or the necessary errors of observation, because the black line itself is only an observed line, and a line observed after death, I have reason to believe that I have succeeded in showing that we possess a power of prediction with regard to the wings of birds, and to other principles of animal mechanics, that entitles us to say that that science of animal mechanics has entered into the class or group of exact sciences.

In conclusion, I would say, with regard to prediction, you are all acquainted with the planet Neptune. [In fact, the poor planet Neptune is used up; he has been so hackneyed a subject for lecturers and audiences that I will not say anything about him. My friend Professor Tyndall has made most of you acquainted with the extraordinary prediction of conical refraction by Sir William Hamilton, whose name will be remembered by those who come after us as that of the greatest mathematician of the nineteenth century. I shall not trouble you with his theory of conical refraction, except to mention a story that possesses an interest as coming from the lips of Sir William Hamilton himself. He told me that he made the calculation late at night. He was not an experimenter, and, as you are aware, the present distinguished Provost of Trinity College, Dr. Lloyd, was the man who actually saw conical refraction first. When Sir William Hamilton took his scribbled paper to Dr. Lloyd, and asked him to make the experiment, any person, not a mathematician (Sir William Hamilton told me), and not accustomed to reading his marks, made on little scraps of paper, the backs of letters and the like, would have said, "Oh, he is taking to his friend a piece of paper on which, for fun, he has allowed a spider that he has dipped in ink to run about."

We find, then, nothing tentative in any branch of Nature. There is nothing tentative in astronomy. No planet ever seeks to move more perfectly in its orbit; it does so from the beginning. We have no evidence that light describes its path by a succession of attempts; it is singly, doubly, or conically refracted, according to fixed conditions, and has all the appearance of having been always so. The socket and the axis round which birds' wings revolve are placed exactly in the position best suited to produce the best effect; and here again I find no tentative process. There is no evidence in Nature of birds with imperfect wings; no proof of a succession of blunders before perfection was attained. All

is perfect; and all was always perfect. There have been no "tentative miracles" in nature, no failures, nor trials. The graceful limbs of the beautiful tiger and the expanded pinions of the sweet albatross of Coleridge speak to the ear of reason in language that cannot be misunderstood,

"The hand that made us is Divine."

LECTURE ON NATIONAL HEALTH.

DELIVERED AT

The Royal College of Physicians of England.

BY

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I.—THE FOUNDATIONS OF NATIONAL HEALTH.

NO subject has received more impulse in this country within the last twenty-five years than the prevention of disease. We are ripe for comprehensive legislation. Mr. Göschen, taking a wide view of the question, has already embodied in a Bill provisions by which the relations of a large proportion of the medical profession to the public may be changed, and a new conception of the functions of medical men may be introduced into every corner of the country.

Though the exigencies of political affairs have forced the withdrawal of this Bill for the moment, I shall endeavour, in the observations which I am about to make, to sketch the intricate bearings of a subject of no small moment, from the point which seems to offer the fullest conception of the groundwork of national health. But I admit the all but impossibility of the task within the limits assigned to an ordinary lecture.

If there be a national health as distinguished from personal health, it is a problem of the last importance to know by what laws the standard of national health is raised, by what it is depressed. If national health be intimately connected with national virtue, and both with national prosperity—if all have their foundations in the very conditions of human life on the earth—then it will seem probable that national vice will be found linked with physical weakness and general decline, by the same correlative necessity.

These laws of our being are the expression of the fact, that nations, like individuals, placed in given conditions, must act within certain limits—limits admitted by all, whether they believe them to be bounded by the possible combinations of chance, or assigned by the intelligence of a Superior Will. National habits, good or bad; national licence and national self-restraint; national vice and national piety; national vigour or national indolence; are propagated through the individuals of which the nation is composed—being attached to individual character, and handed on from generation to generation, modified however by individual education, or those great catastrophes which, like subsoiling in a barren land, bring about fresh combinations, and give birth to products good or bad, better or worse, as the laws, moral and physical, which regulate the combination, may compel.

It may be alleged against these fundamental conceptions that national health is a fiction of the mind—that no such collective physical condition exists. The objection would be one of words. Family constitution and hereditary taint certainly exist; and a multitude of individuals forming one army may, by the operation of moral causes, go anywhere and do anything, or may be without power, without will, without hope.

We must not stop to discuss in full by what subtle links families are bound into peoples, peoples into races; but, limiting our view to our own immediate nation, which may serve as an instance for all, consider briefly *how the physical condition of our people has been attained, and by what means it may be preserved or improved*—our national health, in short, *What is it?* and, *What are the duties of the State towards it?*

The health of an individual is the balanced condition of organs best fitted for due performance of the functions of body and mind within the capacity of the individual. The national health is that condition of the individuals of the nation which enables the individuals of the nation to discharge rightly their respective functions in the state—"to do their duty in the state of life to which they are called"; the statesman to be in training for exercising the complex intellectual operations of his

high office; the artisan, the soldier, the abstract thinker, each for his; and if we regard the philosophic teaching of the great author of the *Republic*, parents of either sex, for the raising of the future citizens for the state (*The Republic of Plato*, Book iv).

The sole question which here seems open to cavil is, How far we can influence national health in the wide sense just hinted at? Can the abstract speculations of the *Republic* bear practical fruit? Can we influence all the factors which are contained in the elements of national health? Let us see what they are.

Take any given Englishman. What is his descent—Roman, Norman, Saxon, Dane, French? What influences have operated on him since his progenitors were among the number of workers in flint or in bone, or in bronze? Did they become farmers, warriors, chiefs? Intellectually accustomed to command or to obey? physically to endure or to shrink? morally thrifty, contented, peaceful or turbulent, drunkards and dissolute? Were they in later times exposed to the diseases of hot climates? Were any syphilitic? Did they intermarry in close relationship, or seek far a-field the partners of their lives? What would be the qualities which, like the now famous Black Bar of the Rock Pigeon, might reappear on their scutcheons—pride, pugnacity, syphilis, gout, phthisis? Terrible questions these which the third and fourth generations ask of the sins of their forefathers and of their own. There is much to be said for the squire who never passed the picture of his great-grandfather but he shook his stick at him with an oath, and said, "Your drink brought gout down upon us all".*

Philosophically, indeed, this most anxious inquiry might, we now know, be pursued, and is being, with rare practical discernment, pursued into the very origin of our race. But I forbear, in a question of great practical import, to do more than remark, that Darwin's discussion has a direct bearing on the conception of national health. It tends to confirm the conviction that acquired habits, whether of body or mind, may be very permanent in a race. That acquired increments for good may be permanent for good we cannot doubt, with the qualification that they must be maintained by each individual of each generation. The potential good being inherited, may, by moral or physical struggle, be retained, and the potential evil be to some extent eradicated. But in every case we must believe that the inherited good attained, perhaps by generations of valour or virtue, may be in a moment shattered like some lovely work of fictile art that was produced only after years of education and months of applied skill.

These general reflections bear mainly on bodily characters, but not wholly so. A woof of mind runs through the web of all animal organisation; and the view we take of the elements of national health is coloured by our conception of the respective relations of body and spirit. When we look abroad on the animal world, we perceive such union of mental and bodily functions, that we are at a loss to say whether the matter, of which the organism is composed, and by which alone the bundle of mental qualities which it possesses can operate in the world, is primarily set in motion by mind, or is itself the *primum mobile*, the basis and very essence of mind. The difficulty of solving this question, so fundamental to all speculation on the organised world, has increased with time; and so the principles on which the education of man shall be conducted have become a subject of yet keener debate. He who believes that we are but what we see, and handle, and measure, and weigh; he who looks not beyond the present chemical concurrence of some half-hundred elements, combined within themselves; and he who says in his heart "There is no God"; all these can look on education and on health as problems only of physical science, to be settled by material measures. But, without pursuing a subject far too long for our present opportunity, let it be said that this hard material view which has once and again cropped up in history, since culture and literature began, cannot be accepted as other than an hypothesis for settling the insoluble problem of the nature of man and his co-tenants of our planet. Look out and see every spot of earth, of water, of air, occupied by beings fitted, if you will, for their place by natural selection; adorned, if you please, by the sexual impulse to display; and what do you find?—material organism fitted to perform certain material functions, bundles of mental powers fitted to put that adapted machinery in operation. Machinery and mind are alike inherited; their qualities improvable, and transmitted; the temper, so to say, of progenitors lost and reappearing. Shall any one presume to say that as yet the genesis or pangenesis of this complicated organisation of earth is so known to him that he can declare that matter alone

* The Chinese have very strict notions as to hereditary taint; chiefly, however, on moral grounds. The children of actors, among others, for three generations are excluded from the greatest privileges of citizenship, and capital punishments may follow unlawful attempts to exercise them. Not long since, thirty examiners, including an ex-Chancellor, were put to death for admitting an actor to a competitive examination.

rules mind? and that mind, whence it is and what it is, is so understood by him that he can say it does not and cannot exist alone—does not and cannot act upon what we call matter—can have no independent being? Does the denizen of air, of water, of earth, who is ferocious, attack ferociously, solely because his weapons make him desire to attack? Does he who flees and is timid, flee because his limbs impel him to dive, or to burrow, or to run away? Do you not think he flees for that he is timid, or fights for that he is ferocious? Have his bundle of mental qualities no real existence? Hopeless questions!

If we cannot, with Malebranche, assert that in an understood and understandable manner, "God is in all things, and all things in God", we at all events cannot, as scientific men, allow that it is proved that blind chance has made us; and may on this safely appeal to the unprejudiced witness of Darwin, who shows by hundreds of instances the coercive powers of purpose. Moreover, by whatever road man has reached his present state, freedom of action, moral responsibility, are his; and now, at all events, he possesses the will and the reason by which he is mainly distinguished from the varied animal world about him. Throughout the animal world we find skill and power, as in the ant, in the dog, in the tiger; but skill and power little, if ever, improved, because the reason to mould the conditions of existence, and compel nature to be their servant, is absent, or applicable only to single instances. With man, on the contrary—with educated, moral, and progressive man—the skill and the power are becoming evidently correlative with the powers which are locked up in nature, and are attainable by him; and they are, on the whole, transmitted unlost from generation to generation.

Slight and imperfect as is this sketch of the relations of man, in his bodily and his spiritual nature, to the world in which he is placed, the thoughts to which it invites must be present to us, if we are to take a true survey of the ground of national health.

The conclusion to which they point is this—that the soul of man is not the abject slave of mechanical organisation; that in some way which science cannot at present ascertain it acts on, as well as is acted upon by, the physical structure through which alone it here exists; and that the groundwork of sound national health lies as much in mental as in physical training and guidance. Thus, a task of the highest importance is imposed on the profession of medicine. They and they only can be at present expected to be able to measure fairly the strain which the nervous system of the human animal at various ages can bear; they and they only can say what bodily training may be most conducive to mental development, and mental activity. But the problem involves questions far beyond the reach of average men worn by the strife of daily life. Philosophers and poets have spent some of their greatest efforts on this subject—Milton and Locke in their essays on Education, Rousseau in his *Emile*, Herbert Spencer in his treatises, and a host of minor thinkers in theirs, have endeavoured to grapple with the question of the relation between mental and bodily discipline, and, viewing the question from the psychological side, have insisted on guiding the development of the body in order to furnish a fit organism for the mind. A caution must be entered, as public opinion heaves to and fro, lest the physician lay too much stress on material agency, and claim too much value for mechanical appliances in aiding the public health. The union of moral with intellectual and physical health (if, indeed, they can be separated), can alone save a people entered on the struggle of so-called civilisation. True, indeed, is it that without good sewers and healthy dwellings the poor can neither labour well nor reasonably enjoy their being; but as true that without a pure state of the moral sentiments, no material improvements will insure to a people present happiness or permanent stability. Material comfort and material luxury are apt to engender, even in a noble race, meanness of soul, and woe and destruction wait on its fall.

Physicians, therefore, in discussing the grounds of national health, must compass the whole bearings of this question, if they wish to be followed by a sagacious and toiling people. A large-minded promoter of sanitary measures says, in a letter to the people of India, "There is so constant a relation between the health of a people and their social civilisation, that, alas! one of the best indications of the social state of populations is afforded by the number who die year by year."* The education of the younger portion of the people in this country is proceeding so rapidly, and the knowledge and conception of material laws, thanks to a periodical literature, which is, on the whole, noble and enlightened, is becoming so much enlarged, that no health measures which are deficient either by reason of inattention to material wants, or of inattention to moral and intellectual aspirations, or based on the old views of medicine as a purely curative as distinguished from a pre-

ventive art, will find public acceptance. To prove this, it is sufficient to note the growth of resolute conviction among the people with respect to the abuse of alcohol, and with regard to the necessity of great engineering works for sanitary purposes, such as those carried out in Lancashire under the Poor-law Board during the cotton famine.

Shortly after the existing Poor-law had come into operation in England, a noble controversy arose in Scotland between Chalmers and William Alison, as to whether the care of the sick poor and of the destitute should be left to the voluntary exertions of the charitable, or be placed under the strict eye of the law. The two men were equals in Christian goodness and philanthropy; their experience and their knowledge of the poor was the same. But the science and logic of Alison prevailed. He showed, once for all, that whatever might have been the evils engendered in England by the Poor-law, the evils of destitution left to charity were greater both to the nation and to the individuals.

The ideas of legal claims to relief on the part of the destitute, and to cure on the part of the sick, are so familiar to this generation, that the early contest against the establishment of these ideas can now be scarcely credited. We are fast reaching a further social conception, that *prevention* of sickness is a yet more rational course, and therefore a yet more sacred duty than its *cure*. But the nation requires further familiarity with the proposition before it will accept it; and that familiarity cannot come until the community at large, as well as the medical profession, have fully realised the obvious proposition, that *prevention* of all disease that is not surgical, and of much disease that is surgical, is as strictly a department of medicine as *treatment*. They appreciate this in vaccination and small-pox. They do not appreciate the efforts of the younger labourers, who are striving to discover new protection against other scourges of man.

But no medical knowledge, no sanitary provisions, and no sanitary legislation, can make head against laws of nature, physical or moral. If population increases beyond the means of healthy subsistence, disaster must follow. It seems to me that at present sufficient attention is not paid by sanitary writers to the fundamental truths advanced by Malthus, but often overlooked or misunderstood. While we have been honestly endeavouring, for the last twenty-five years, to abate the general torpor and selfishness of the previous century, and to stop the growth of further sanitary evils, the average mind of England has not sufficiently heeded the coming, nay, the present, difficulties of over-population. We are too apt to look on the East of London, or the growth of manufacturing towns, as exceptional instances. They are the necessary consequences of unthriftiness in marriage, of limited area, of difficulty in emigration, and of working and trading for the world.

The reality of our difficulty about population is told in a very few words—England and Wales are increasing by about 200,000 annually. This number will, of course, increase by a small increment. Since A.D. 1810, the population, which was 10,000,000, has become 22,000,000, and, at the same rate, will become by A.D. 1920, over 45,000,000. The acres in England and Wales are about 37,325,000, including waste ground. There are now, therefore, nearly two acres per man; there will be in fifty years not one; in Glasgow, there are already 94 inhabitants to an acre, and in Liverpool, 103. No single arrangement can meet the necessities, therefore, of every district. The urban and rural districts have each respectively their sanitary difficulties. The land question presses in one shape in the towns, in another in the country. Here, as in America, or in every manufacturing country, causes suddenly operate to convert rural into urban lands; and to import, into wholly unprepared country districts, all the troubles of an urban population. Of this, a striking instance is seen in the coal districts of Durham and Northumberland, many more in Lancashire and Yorkshire. The danger of all these circumstances in relation to national health is admirably stated by Professor Fawcett:—"It will, therefore, be well distinctly to appreciate what is implied in bringing into operation causes which will produce greater mortality; some definite idea may be formed on the subject, by considering the results involved in the present high death-rate prevailing amongst the children of the poor. Assume that there are 1,000 of these children, that 500 of them die before the age of five, whereas if they were as well cared for as the children of more wealthy parents, only 200 of them would die before this age. The death, therefore, of 300 is to be traced to defects in our social and economic condition. These children are literally slaughtered, and in a manner, moreover, which indicates prolonged suffering. But this is only a part, and perhaps the smaller part of the mischief which is done; the causes which produce this excessive mortality do not alone affect the children who die; all those who survive are also brought under the same blighting influence. Consequently, to all the struggle for existence becomes more severe, the more weakly succumb; even the stronger who survive, in passing through the trying ordeal, often con-

* Miss Nightingale, remarkable letter to the Bengal Social Science Association.—See *Report on Improvements in India*, 1870, p. 250.

tract the germs of future disease, their constitutions being, in too many cases, undermined. Physical deterioration ensues, and a whole people may thus become gradually stunted and enfeebled.”*

It is not possible to reflect on this subject without recognising the truth of the proposition that, making every allowance for the action of counteracting causes, excessive development of a population on a limited area like Great Britain, must, in the end, be disastrous to the nation, unless, first, the population can be kept healthy, and, secondly, the commodities of life are obtainable to a commensurate extent. The arithmetical bearings of this point have been worked out by Mr. Samuel Ruggles, in a Report to the President of the United States.†

The conclusion, then, seems almost forced upon us, that whenever our population increases beyond the power of our area to maintain it, two effects will follow, more especially in times of commotion—increased pauperism, increased disease among the adults. If philanthropic or legislative efforts succeed, there will be added the rearing of wretched children, incapable in body and mind; multiplication of lunatic asylums, reformatories, and workhouse schools, and crushing taxation of the industrious, capable, and healthy.

Conversely, if the preventive checks of Malthus, and especially education (in which I place, first, moral culture, however attained), can be brought into operation, two results might be expected; first, that the population may be kept in some check; and, secondly, that the internal administration of the country may be greatly improved by the political sense of the masses. Through these two causes there may be hope for the nation. It is doubtless true, first, that in the history of the world we have seen nations almost brought to a stand by epidemics, as, for instance, in various parts of Europe during the fourteenth century by the astonishing ravages of black death; secondly, some check is induced by wars; and, thirdly, an excessive mortality of children produces the same results. The operation of these natural checks is eminently uncertain; and to count upon them as substitutes for self-control, prudence in marriage, and good political administration, is deliberately to substitute the instinctive life of brutes or savages for the progressive experience, the reason and morality of the human race, and to accept the destiny which such life brings with it. When savages and brutes meet in conflict with civilised man, that destiny has usually been extinction.

Moreover, whatever opinion there may be at present as to the origin, first of species, and secondarily of race, constitution, and individual temperament, there can be none as to the effect of food, climate, habits of life, and culture, either upon the individual or the progeny. It is sufficient here to remark on the feebleness of the descendants of Europeans in India, notwithstanding the vigour of the first generation, and on the rapidity with which the Anglo-Saxon race has changed in North America. Doubtless the limits of variation of man, or of any race of men, have not yet been determined; but we are rapidly approaching precise knowledge on the subject. Life insurance-offices will, ere long, furnish a fund of information; and the labours of our great statisticians, when they include sickness returns from the public health authorities, will give all attainable scientific information of the causes and nature of health fluctuations in this country, in comparison with the same in other countries. To say truth, the accumulating knowledge of the facts of humanity is becoming more marvellous than the fancies of Utopia. The newspapers tell us weekly—thanks to the sagacity of Major Graham and of Dr. William Farr—the comparative death-rates of great towns not only in England but on the continent of Europe, in India, and at New York. We are enabled to judge what the energy and determination of one man can do in controlling the health-destiny of vast populations, by studying the admirable results of the work of Dr. Hewlett (*Quarterly Reports on Bombay*) in Bombay, and the sanitary progress in Calcutta. India bids fair to set us an example of accomplished sanitary administration, which will be fruitful alike of knowledge and of practical benefit to the people.‡ Nor is this all: Quetelet (*Anthropometrie de l'Homme*, 1870, and *Essai de Physique Sociale*, edit. 2, 1869) and Galton (*Hereditary Genius*, 1869) have opened a mine of precise knowledge regarding the finer causes of “limits of variation” which have been just touched upon. Quetelet, indeed, has proved what, *à priori*, might have been safely inferred, that the limits of the factors of human nature, whether mental or bodily, may be fairly expressed in terms of mathematical formula and curves; so that, indeed, the average proportion out of a given number of persons possessing

any mental quality may be as directly predicated as their heights or their weights. It is true that this is only the expression of a fact which it does not explain. But Francis Galton has with great skill, in his work on *Hereditary Genius* (1869, p. 373), shown some of the consequences of this fact or law. They are startling. Just “as a cook combines or creates a dinner, the fish director can create”, he says, “a particular sort of fish according to a predetermined pattern”; then, he adds, “the reflections raised by what has been stated of fish are equally applicable to the life of man”. “The entire human race, or any one of its varieties, may indefinitely increase its number by a system of early marriages, or it may wholly annihilate itself by the observance of celibacy. It may also introduce new human forms by means of the intermarriage of varieties, and of a change in the conditions of life”. Galton’s speculations—I ought rather to say, his logical and precise discussion—should be carefully weighed by every thinker on public health, because, in one sense, it is directly opposed to the conclusions of Malthus. He has worked out the effects of early and late marriages in respect of progeny, and has shown that, given certain conditions to two races, M or N—one, M, marrying early, and N marrying late—at the end of one century the mature men of M will be four times as numerous as those of N; at the end of two centuries, ten times; and at the end of three centuries, twenty-seven times as numerous. Now, if M were reckless and imprudent, and N careful and prudent, all else being equal (which, however, would not be the case), the prudent race would be driven out of the field. A terrible disaster! “It may seem monstrous that the weak should be crowded out by the strong, but it is still more monstrous that the races best fitted to play their part on the stage of life should be crowded out by the incompetent, the ailing, and the desponding.” In forming a fair estimate of the whole of this question, many other causes would have to be considered, and their effects calculated. But reason tells us that there must be some relative value in lives, though the human eye may fail to count it right. There is a moral in the tale of the fowls in the northern seas. As the three egg-hunters are, one by one, drawn up along the face of the cliff by the same rope, highest is fastened the lad, the father next, and last the grandsire. If the strain be over great, the lowest, least worth, is to cut the rope and fall into the abyss; next, if need be, the father; so that the chafing strands may perchance save that life which may be longest and is youngest. So is it in nature. We have our being under just and necessary laws, moulded by hidden causes we cannot see nor understand. [To be continued.]

CLINICAL ILLUSTRATIONS OF CUTANEOUS DISEASE.

By ERASMUS WILSON, F.R.S.,

Professor of Dermatology in the Royal College of Surgeons.

Phlyctenous Eruption affecting the Hands, Ankles, and Buccal Mucous Membrane; recurrent thrice yearly; repeated for several years.—April 6th, 1871.—A young man aged 21, engaged in a wholesale warehouse in the City of London, is affected with blisters on the hands. The blisters are hemispherical in figure, raised on a thickened base, without redness, with no tendency to burst, and about a quarter of an inch in diameter. On the wrist, they are flattened; several are coherent and confluent; the cuticle is but slightly raised; and they are purplish in the centre, from slight extravasation of blood. The patient mentions that he has a few similar vesicles on each ankle, and the buccal mucous membrane is studded with aphthæ. He states that he has no forewarning of the attack; that he is unaware of any exciting cause; that there is little and only occasional pruritus; and that the eruption recurs three or four times a year, the more constant periods being Christmas, Easter, and Midsummer.

It is evident that the cause of the eruption must be looked for in a lowered tone of the system occurring at those periods. He is thin, somewhat pallid and languid; but nothing else presents itself to mark debility. Nevertheless, the therapeutical indication would seem to be a tonic medication and regimen.

The chief point of interest in this very peculiar affection is the sympathy of lesion of the skin and mucous membrane. The eruption is altogether unlike eczema; neither does it resemble herpes. Its nearest correlative is pemphigus; and its alliance with pemphigus is shown not only by the phlyctenous development of the eruption, but also by the slightly hæmorrhagic tendency evinced by the spots on the wrists.

Prurigo Mitis, from simple Debility.—April 7th, 1871. A young lady, aged 21, complains of spots on the skin which are so intensely pruritic that she is unable to resist scratching them, although, as she states, she knows that they are aggravated by frequent “picking”.

* Professor Fawcett, *Pauperism, its Causes and Remedies*, p. 108. London: 1871. A book which cannot be too widely read.

† See an abstract of his paper in the *Times*, May 17th, 1871. John Lambert, Esq., C.B., has referred me to an interesting work on the condition of the poor, by another Mr. Ruggles; viz., *The History of the Poor and the Laws respecting them*, by Thomas Ruggles, Esq., 1797. The work contains many thoughts of permanent value.

‡ See various reports on health of India for the last five years.

They are scattered chiefly on the face, some few being dispersed upon the fingers; they occur singly or in small numbers at a time; but the whole eruption does not exceed ten or twenty spots. She is first made aware of their presence by itching. She scratches the itching point, and then a small white pimple appears. The scratching occasions the exudation of a minute drop of a limpid colourless fluid; and after a while a reddish-brown dry spot, about a quarter of an inch in diameter, is left behind, resulting from the abrasion caused by the nails. There is no scab, and no crust. This troublesome affection has now lasted for two years. The patient is pallid and slightly chlorotic; her appetite is dainty; she has a feeling of weight at the epigastrium after meals; the bowels are torpid; she suffers from headache; and her sleep is bad. Menstruation is regular; but it is immediately before the period that the prurigo is most troublesome.

This case may be regarded as almost typical of a form of prurigo that is by no means rare. The diagnosis points to a neuropathic origin of the affection; and, therapeutically, we have reason to believe that, if we can improve digestion, assimilation, and sanguification by the usual remedies, cure is not far distant.

Phytosis Versicolor (Pityriasis Versicolor of Willan); Orbiculate, Guttate, and Pruriginous Variety; occurring in a "Tea-liquorer".—April 5th, 1871. A robust man, aged 52, is tormented with a pruriginous eruption which occupies the front of the abdomen, chiefly above the umbilicus, and also encircles the neck. It consists of flat spots of a reddish-brown colour, perfectly orbiculate in figure, measuring two lines in diameter, and without hyperæmia. The spots have a remarkable appearance, being scattered over the surface at pretty equal distances, and suggesting the idea of the stains of a pock, or of drops of coffee dried upon the skin. They have been in existence for nine months without change.

Generally, phytosis versicolor presents itself in the form of puncta, corymbose patches, and map-like blotches, of considerable extent. There is very little pruritus, and the epidermis is rough and desquamating; the latter character having, in fact, originated the term "pityriasis". But in the present case the spots were exactly round; they were smooth, without desquamation; and the pruritus was a predominant symptom. The patient describes the itching as being of the tingling and darting kind, like the stinging of nettles, and of such suddenness and intensity, particularly around the neck, that he winces involuntarily on its invasion. It is most troublesome when he is under restraint, and has been the means of keeping him from church for some time past.

The patient's calling in life is that of a traveller in the tea-trade; but he is strictly temperate. In his business capacity, he is much occupied in tea-tasting—"liquoring", as it is technically termed; and the "liquoring" of tea is an injurious process for the stomach. Tea-liquorers are very liable to dyspepsia; and he states that, after one or two hours of these trials of the flavour of tea, an empty or sinking feeling is experienced at the pit of the stomach, and a desire for food—"some bread and cheese and a glass of beer". The liquorer swallows as little of the infusion as he can help; and there can be no doubt that tea taken in such a manner and on an empty stomach must do considerable harm. I have several times prescribed for eczema having this origin.

[To be continued.]

A CASE OF ACUTE ATROPHY OF THE LIVER COMPLICATING EARLY SECONDARY SYPHILIS.

By HENRY F. A. GOODRIDGE, M.D.,
Physician to the Royal United Hospital, Bath.

GEORGE B., aged 20, a tailor out of work, of about average height and conformation, of fair complexion, and spare nutrition, also of sober habits, was admitted to hospital on October 1st. He said that he always enjoyed good health until July last, when he contracted syphilis. In due course an indurated chancre appeared. For this he was treated with bichloride of mercury, taken in ordinary doses, for a period of five weeks. On September 16th, he began to suffer from sore-throat; a few days later his appetite failed, and on the 26th he became jaundiced. The last three days he had had paroxysmal griping pain in the umbilical region, with some vomiting after food. His bowels had been confined for a week, and his urine for fully as long had been of a very dark hue. His sleep had been undisturbed; he had had no shivering, nor pain in the right shoulder; and he had been able to walk about daily.

On admission, he presented well-marked jaundice, his skin being of a bright orange yellow colour; but along with this, and obscured by it,

there was on his trunk some roseolous rash. He had enlarged red ulcerated tonsils; the tongue was sticky, and had a thin pale coat upon the dorsum. There was slight tenderness on pressure in the right hypochondrium, but the liver did not seem to deviate much from its normal dimensions. The temperature in the axilla was 99 deg. Fahr.; pulse 112, small and weak; respirations 20. There was a large quantity of bile-pigment in the urine. He had no œdema of the feet. A draught containing half an ounce of Rochelle salt and one ounce and a half of compound decoction of aloes was ordered to be taken immediately; and the acid solution of the nitrate of mercury to be applied to the throat. The patient was ordered to have half diet.

Oct. 2nd.—He had passed an indifferent night. He had no pain. The bowels had not yet been opened. The urine was of very deep hue; it was non-coagulable, but readily showed with nitric acid the characteristic reaction; specific gravity 1.012. The draught was repeated.

Oct. 3rd.—He vomited last evening; afterwards he slept pretty well. The bowels had been moved twice; the stools were clay-coloured; temperature 98 deg.

Oct. 4th.—He slept well. There was no return of nausea or vomiting; no pain. His appetite was better, and he felt better; temperature 98 deg.; pulse 80. The liver was diminished in volume. The urine amounted to nearly three pints in the twenty-four hours. There was no obvious decrease of the jaundice. An obscure rash still mottled the skin of the trunk. He was ordered to take the following draught three times a day, and a pill every night.

R Acidi nitro-hydrochl. dil. ℥xv; succ. taraxaci 3ij; aquam ad 3j. M.

R Extr. aloes Barbad. gr. j; extr. nucis vom. gr. ¼; extr. rhei gr. ij; creasoti mj. M. Fiat pilula.

Oct. 5th.—He said that he felt quite well, and was intent upon getting up (in spite of prohibition, he did so for half an hour or more); pulse 80. The bowels were opened to-day. He passed two pints of urine in the twenty-four hours.

Oct. 6th.—At 1 A.M. he awoke and felt faint; a little water, at his request, was given to him to drink, and he soon went to sleep again. At the visit his pulse was 88, somewhat irregular in rhythm. His urine was darker, and the jaundice generally seemed more intense.

Oct. 7th.—Again last night he awoke feeling faint; he then vomited about one pint and a half of turbid, slightly acid, fluid, free from bile-pigment, and depositing what appeared like half-digested food. At the same time, he complained of a sharp pain across the lower part of the back. At length, however, he went to sleep. He took his breakfast as usual. At the visit (1 P.M.) he was found in a state of semi-stupor, and it was ascertained that he had been wandering the preceding two or three hours. He had a manifest look of oppression, half-open eyes, and dilated pupils, but little responsive to light. He frequently turned from side to side in the bed and yawned, put out his tongue when bid, and seemed to understand something of what was said to him, but gave one and the same short answer indifferently to every question. Temperature 97.7 deg.; pulse 88. The heart- and lung-sounds, generally speaking, were normal. The abdomen was flaccid, and free from tenderness on pressure. The bowels were confined. The urine amounted to upwards of two pints and a half in the twenty-four hours; it did not coagulate on boiling and the addition of nitric acid, but became very green with the latter. Two drops of croton oil in sugar were now put on his tongue, but there was extreme difficulty in getting him to swallow. Later in the day he became very violent, vociferated loudly, and had to be restrained from getting out of bed. His pulse had risen to 120 at 6 P.M.

Oct. 8th.—He gradually sank into profound coma, with stertorous breathing; pulse 172; respiration 44. His bowels were opened in the early morning (an enema having been administered), but he had not been made to swallow anything since the croton oil the previous day. He died at noon, or at little more than twenty-four hours' interval from the supervention of the cerebral symptoms.

NECROPSY fifty hours after death.—The most striking morbid appearance was the smallness of the liver, with the gall-bladder attached, which contained a drachm or two of thick yellowish mucus; the organ weighed only 30½ ounces. It felt flabby, the left lobe even soft; this and the marginal portion of the right were of a pale yellow colour, but the central convexity of the latter was of a deep red, a gradual shading off marking the interval; the surface was smooth, but there was considerable opacity of the capsule near the suspensory ligament, and this was detached from the hepatic substance with difficulty. On section, blood issued freely from the cut vessels; the texture was found to present a corresponding variation of colour to that observed externally; the lobular structure was more or less distinct. A scraping from the pale yellow portion under the microscope exhibited a great abundance of oil-globules and molecular matter, but hardly a trace of hepatic cells;

just one or two solitary needles of tyrosine could be detected in the specimen examined. No obstruction whatever could be found on careful inspection of the bile-ducts. The fæces in the colon were quite clayey in appearance. The *spleen* was small. The *stomach* contained a quantity of almost black (hæmorrhagic?) fluid. The *kidneys* were of usual size, very congested. In the *lungs* were a few grey miliary tubercles with two or three soft cheesy ones at the right apex; none at the left. The *heart* presented a fringe of minute soft red vegetations on the mitral valve, and some opaque markings of the lining membrane of the left auricle. The sigmoid valves were healthy, but there were some specks of atheroma at the commencement of the aorta. In the *brain*, besides increased vascularity, there was considerable opacity of the arachnoid at the superior surface of the hemispheres, with some appearance of recent lymph in the sulci bordering the longitudinal fissure.

Besides the general interest of the foregoing case as an illustration of a rare and obscure form of disease, there are two points in it which claim attention, as bearing upon current doctrine.

1. *The Complication*.—Dr. Murchison, at page 232 of his *Lectures on Diseases of the Liver*, in reference to acute yellow atrophy, says: "Constitutional syphilis appears to be a predisposing cause in some cases. Most writers on syphilis have noted the frequent occurrence of jaundice about the commencement of what is known as the secondary stage; and in some (probably a small proportion) of these cases the jaundice is due to acute atrophy." At the same time, it is observable, syphilis has no place assigned to it by Dr. Murchison in his classification of the causes of jaundice. M. Lancereaux, on the other hand, while devoting some pages of his elaborate treatise to "secondary syphilitic icterus," or, "the icterus contemporary with syphilitic exanthema"—which affection, upon the evidence of twenty-one collected cases, he regards as a manifestation of the diathetic condition, of mild character, and favourable termination, and attributable to congestion of the liver or the compression of the biliary ducts by tumefied lymphatic glands—dismisses acute yellow atrophy with the single remark: "It appears to be without any direct ætiological connection with syphilis." (Lancereaux on *Syphilis*, New Sydenham Society's Translation, vol. i, p. 358.)

2. *The Head-symptoms*.—The first quoted writer (*op. cit.*, p. 228) teaches . . . "These symptoms are independent of any lesion of the brain or of its membranes." So also Frerichs and others.

INFLUENCE OF MENTAL SHOCK IN INSANITY.

By ALEXANDER ROBERTSON, M.D.,

Medical Superintendent of the Town's Hospital and City Parochial Asylum, Glasgow.

MRS. H., aged 27, was confined of her first child on the 7th of last November. Ten days afterwards symptoms of mental disorder appeared. She became restless, was occasionally excited, and imagined that she heard people whispering and suggesting divers things to her. After about a fortnight's treatment at home she was sent into this asylum under my care.

On admission, besides the mental aberration, her general health was reduced, but not so much as is usual in this form of puerperal insanity; and she took her food well. The ordinary treatment in such cases, namely, sedatives of various kinds, warm bathing, generous diets, and, as the disease became chronic, counter-irritation to the scalp, was carefully carried out, but all without avail. Her general condition was fully restored; but the delusions became more prominent, and were systematised. She imagined that she was a man: nothing would irritate her more than to address her as Mrs. H. She answered to the name of Peter; and declared it was a shame to keep her dressed as a woman. She even talked of marrying the nurse. Through this absurd notion she was a source of amusement to her fellow-patients. In joke they would cry "Peter", and she immediately came and asked what they wanted. The imaginary voices also continued to torment her.

Upwards of four months having elapsed and no improvement being apparent, I had begun to form an unfavourable opinion of her case. But three weeks since, at my usual visit, the matron who accompanied me said, "I think, sir, you will find a favourable change in Mrs. H. to-day. Yesterday she saw her sister-in-law down stairs" (the latter had been admitted a few days previously with insanity from intemperance, but on most points was very intelligent), "and was much affected. Mrs. H. said to her, 'Oh, Margaret! why are you here?' To this her relative replied, 'Well, I was sent here because it was said that I was out of my mind'. The attendant told me", the matron continued, "that Mrs. H.'s face just got like scarlet, and that she had never seen anything like how the veins stood in her forehead; they were like small fingers." On inquiring of the attendant, this statement was fully cor-

roborated. I was delighted to find that the change in Mrs. H.'s mental state was in no way exaggerated. On alluding to her particular delusion she blushed; and, smiling, said that she had got quit of that notion now. She admitted, however, that she still heard the whisperings, but added that they were not nearly so troublesome this morning; and she evidently realised that they were imaginary. Two days afterwards she assured me, with evident sincerity, that they, too, were all gone.

Her recovery continued. Affection for her husband and child, which had been in abeyance during her illness, was now fully restored. She was cheerful and contented, and engaged willingly along with other patients in the domestic work of the department. To-day (May 13th) she was dismissed cured.

This case is a suggestive one. It shows the powerful influence of mental shock even on the insane—sufficient to uproot at once a fixed morbid idea. May we not, then, with propriety, endeavour to apply the principle in the treatment of certain cases of monomania more than is done at present? In the dark days of lunacy practice it was carried out, though in a very objectionable form. Alienist physicians occasionally plunged their patients suddenly into the "surprise-bath", and believed that it had a beneficial influence. Possibly it had sometimes; but it is to be feared that the result was often injurious. But might we not now and again accomplish the end aimed at by this coarse procedure, in a way harmonising with the more enlightened and humane treatment of the present time? What that way should be, would require to be considered for each case. In illustration, I will narrate the result of an endeavour to carry the principle into practice, even though it was the reverse of satisfactory.

I have a patient at present under my care whom I require to feed with the stomach-pump twice daily. She has made a vow not to take food. Bearing Mrs. H.'s case in mind, I tried the following plan. At 12 o'clock, a few nights since, when all was still and quiet, along with the matron, I proceeded to the gallery in which the patient sleeps in a single bedroom. With noiseless step I advanced alone and knocked thrice at the bedroom door, pausing between the knocks. Then I said slowly, in a deep, sepulchral tone, "I command you to take food." There was a movement inside; but

"The best laid schemes of mice and men gang aft aye."

To my chagrin she muttered something about the devil, evidently supposing that this "voice of the night" emanated from a quarter which is not credited with imparting salutary counsel. Accordingly, she still adheres tenaciously to her vow.

This failure should not discourage similar attempts. In other cases they may be crowned with success.

ON OAKUM AS A DRESSING FOR BURNS.

By HERBERT L. SNOW, M.B. Lond., Shrewsbury.

I WISH to bring under the notice of readers of the JOURNAL the value of common picked oakum as a dressing in the suppurating sores resulting from burns. Among the good effects which I claim for it are these: First, it ordinarily induces the cicatrization of extensive sores with remarkable rapidity; secondly, it induces healing action in such of these as, occurring in debilitated subjects, or under defective hygienic conditions, have almost assumed the character of indolent ulcers, and remain stationary under the application of the ordinary lotions; thirdly, I may allude to the almost entire absence of any offensive smell under the use of oakum, to its cheapness, and to the saving of time and trouble effected by its employment; lastly (and this I hold to be by far the most important point of all), the *resulting cicatrices do not contract*. I have not yet used oakum in a sufficient number of burn-cases to advance the last statement as absolute; but in the limited number in which I have been able to employ this dressing thoroughly (in several of these there were very severe and extensive sores), I have always found the cicatrix of a peculiar dark-reddish colour and soft consistence; none of the usual tense fibrillated appearance has been visible, and no subsequent contraction has ensued.

I now always use the common oakum, which appears to me to answer much better than the recently introduced "tenax", and probably contains more of the tarry principles. This is wetted with cold water, then placed on the surface of the sore, and a bandage loosely applied over it. No pain follows the application; but the oakum has to be wetted (without being removed) with cold water several times a day, or the patient will complain of its feeling dry and sticky: the latter may generally be left to do this *ad libitum*. The dressing need not be changed oftener than on alternate days—sometimes not until every fourth

or fifth day, according to the condition of the wound and the amount of suppuration present.

Under this application some very large and deep sores heal with marvellous rapidity—many which would not be well for months under the ordinary modes of treatment, cicatrising in the course of as many weeks. All make very favourable progress towards healing, but in some the process is much more rapid than in others. The granulations seem to have a much diminished tendency to become exuberant, and seldom require either pressure or the application of escharotics. The oakum should not be applied until suppuration is well established; previously, it does not seem so beneficial as many of the applications in ordinary use. It may also be used with benefit for suppurating ulcers resulting from other causes than burns; but I have not found the former heal with nearly so much rapidity as the latter.

The last of the considerations which I have adduced above must be my main apology for sending this paper, which I have done in the hope of inducing further trials of the material. Admitting that my own experience has not yet been sufficiently extensive to decide the point absolutely, if indeed we acquire a means of preventing the frightful sequelæ of burns, unfortunately so common, we shall have made a material contribution to the alleviation of human suffering.

I may mention, in conclusion, that I have lately adopted Mr. Skey's plan of applying a solution of nitrate of silver (twenty grains to the ounce) to all recent burns, with the best effect; the pain being soon much alleviated, and the subsequent ulceration considerably diminished.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE XVI.—Friday, March 24th.

In a small Indian Deer, with long elongated peduncles to the horns (the Muntjac or Cervulus), the canines in the male project beyond the lip like tusks, curving outwards and backwards. The pulps are not persistent; but the crown of the tooth grows out like that of the molar of the Horse.

In the Musk-Deer (*Moschus*), an inhabitant of the high lands of Central Asia, there are no horns in either sex; they are apparently replaced by the large upper canines, which are much compressed, and have the posterior edge and the apex very sharp. These large canines are confined to the male, and are probably used in fighting. They hang downwards, and are entirely coated with enamel. They are generally considered to be of persistent growth; the root is deeply placed, and is large at the base, but in old animals there is a tendency to closure of the pulp-cavity.

The Tragulina, represented by the Tragulus or Chevrotain (Pigmy Musk-Deer), differ in many respects from the true Deer. They have no horns; the canines in the male are large, and project, passing outside the lip, and have persistent pulps; in the female, these teeth are small, having conical crowns, and are rooted. The præmolars are larger from before backwards than in the Cervidæ.

The Camelina, represented by the Camel and Llama, present rather a return to more typical dentition. The upper jaw has a long conical incisor, much resembling a canine, at the hinder part of the præmaxillary bone. There is a long conical sharp canine; and behind this lies a smaller tooth, similar to it in form, but corresponding to the second præmolar of the typical dentition. In the lower jaw, there are four teeth in front; one, placed a little apart, is compressed and conical, and is very like a canine. After an interval comes another similar tooth = the second præmolar. Besides these, there are five teeth of the molar series in the upper jaw, and four in the lower; their structure resembles that met with in Ruminants generally, but is more simple. The dental formula is $i \frac{1}{3}, c \frac{1}{1}, p \frac{3}{2}, m \frac{3}{3}$. In the milk-dentition, there is an additional incisor in the anterior part of the præmaxilla. The milk-molars are larger than the teeth which succeed them. Of the four teeth in front of the lower jaw, the outer one resembles an incisor.

The dentition in the Llama resembles that of the Camel, except that one of the lower præmolars is wanting.

Hyracoidæ.—The Hyrax, an animal found in many parts of Africa and the adjoining portion of Asia, has some points of affinity with the Ungulata, yet differs in several particulars. Of the species, some re-

semble the rabbit in their habits; and some live on large trees. It is this animal which is the "coney" of the Bible. The Hyrax was placed by Pallas among the Rodentia. Cuvier, however, decided that it was allied to the Rhinoceros. Subsequent zoologists, however, especially Milne-Edwards and Huxley, have not been satisfied as to its affinities, and have formed it into an order by itself—the Hyracoidea. Brandt is inclined to restore it to the Ungulata; and there is much to be said in favour of this view, though it must be regarded as an altogether aberrant form. One of the principal characters allying it to the Rhinoceros is the structure of its teeth. There are two incisors in the upper jaw on each side; the outer one is shed very early; the inner has a persistent pulp. The lower jaw has on each side two incisors, which remain, projecting forwards, and divided in front into three distinct lobes. The middle lower incisors are small; the outer ones are well developed. As in the Rhinoceros, there are no canines. The molars resemble in miniature those of the Rhinoceros; they increase in size from before backwards, and have a similar pattern on the crown. The dental formula of the Hyrax is $i \frac{2}{2}, c \frac{0}{0}, p \frac{1}{1}, m \frac{3}{3}$.

In the great plains of South America, near Buenos Ayres, are found remains of many animals which have been collectively placed in the genus *Toxodon*. The teeth all have persistent roots, and are curved, but in an opposite direction to the teeth of Rodents. The teeth are all simple in character. The dental formula is $i \frac{2}{2}, c \frac{0}{0}, p$ and $m \frac{7}{7}$.

The *Typotherium*, an extinct animal found in the same locality, and evidently allied to the *Toxodon*, at first sight would seem to be a Rodent. It had in the front of the upper jaw two large teeth, between which, and the five teeth of the molar series, was a large space. In the lower jaw, however, there were two additional teeth in front. The upper incisors were apparently covered with enamel all round; and the condyle of the lower jaw had a transverse direction, as in the Ungulates. On the other hand, the animal had five toes; and there was a perforation above the inner condyle of the humerus, not found in any modern Ungulate.

Proboscidea.—This order was once represented by numerous species, presenting transitions in structure between the modified and highly specialised Elephant, its sole modern representative, and the Ungulate Mammals.

The *Dinotherium*, judging from the size of the jaws, must have been as large as the Elephant. The front of the upper jaw was apparently without teeth; the lower jaw hung down, and had two large tusks directed downwards. The molar series was very like that of the Tapir. The first præmolar was rather obscurely divided by a ridge; the second had two lobes; the first true molar had three; and each of the others two. The dental formula was $i \frac{0}{0}, c \frac{0}{0}, p \frac{2}{2}, m \frac{3}{3}$.

In the *Mastodon*, the formula was $i \frac{1}{1}, c \frac{0}{0}, p \frac{3}{3}, m \frac{3}{3}$. There were tusks in both upper and lower jaws; in many species they projected straight out, and in some the lower ones were rudimentary. The molars had large elongated crowns and many roots; the crowns had great transverse ridges with deep clefts between; each ridge being, when unworn, further subdivided into several nipple-like processes, from which the name of the genus is derived.

In the molar teeth of Elephants, these ridges are still further developed, being more numerous, and the spaces between them deeper, and filled up with a large quantity of cementum, which is but sparingly developed in the *Mastodon*. The dental formula of the Elephant is $i \frac{1}{1}, c \frac{0}{0}, m \frac{6}{6}$. The upper incisors are immensely developed, constituting the well known "tusks". These consist mainly of solid ivory, with a persistent pulp-cavity at the base, a thin layer of cement externally, and a small cap of enamel at the apex, which wears off as soon as the tusk begins to be used. They are preceded by milk-incisors about two inches long, with closed pointed roots, which are shed before the animal is two years old. The molars are altogether six in number in each side of the jaw, and succeed each other from behind forwards; the hinder ones not being developed until the front ones are worn out and shed, so that never more than one or portions of two are in place at the same time in each side of the jaw. The size and complexity of these teeth increase from the first to the last, the average number of ridges in the different teeth of the Indian Elephant being 4-8-12-12-16-24; the last lower molar may have as many as 27. In the African Elephant, the teeth are of a coarser make, the ridges being broader and less numerous, though they follow a similar numerical law, being in the respective teeth 3-6-7-7-8-10. Each of these ridges is formed by a lamelliform prolongation of the pulp, converted into dentine, and enclosed by enamel; the whole being united by cementum. These three constituent substances are of unequal hardness; hence, as the tooth wears away, its free surface presents transverse ridges of hard enamel, standing out between the more quickly trituated and therefore depressed lines of cement and dentine, constituting a most effective grinding apparatus.

CLINICAL MEMORANDA.

SKIN-GRAFTING.

IN a paper on skin-grafting by Dr. Page, which appeared in the *BRITISH MEDICAL JOURNAL* for May 27th, a statement is made that, in the portion of skin used for transplantation, the upper and horny cells of the epidermis *always* desquamate, and that to this cause may be attributed the apparent disappearance of the graft. As the process of M. Reverdin is as yet in its infancy, any clinical observations which tend to refute or establish ideas already entertained regarding it are of great practical importance, and on that account the following may be useful.

In a case which I had under treatment in the Kendal Hospital a short time ago of varicose ulcer of the leg of twelve months' duration, I adopted the process of skin-grafting, after having first brought the ulcer into a perfectly healthy condition. For this purpose I took two grafts, of about a quarter of an inch in diameter, from the skin on the inner part of the thigh, and transplanted them on to the ulcer. One of the grafts underwent the changes usually described, but the other neither desquamated nor altered in appearance, and at the expiration of five or six days there arose from its margin the bluish-white line characteristic of cicatrization. At the end of three weeks the ulcer was entirely healed, the graft being most distinctly visible in the new cicatrix, and presenting all the appearances of normal skin.

The further history of the case is of interest. The patient was a man of very dissipated habits, and immediately after his discharge from the hospital he indulged in a drunken debauch, the result of which was that the leg became highly inflamed, tense, and swollen, causing the new cicatricial structure to break down; the graft, however, which underwent no desquamation, pertinaciously adhered, and still continues to adhere to the ulcer, although a period of some three weeks has elapsed since the cicatrix became destroyed, while the other has vanished. This destruction of the cicatrix is of interest, as showing that in skin-grafting we do not appear to obtain a more highly vitalised structure than in the cicatrix formed in the ordinary process of healing.

SAMUEL CLARKE NOBLE.

Kendal, May 29th, 1871.

OBSCURE ABDOMINAL TUMOUR.

THE clinical memoranda in the *JOURNAL* encourage general practitioners to record short medical and therapeutic facts which might otherwise be lost, the constant toil of practice leaving no certain leisure for detailed reports. I send as a contribution a case of suspected malignant tumour in the abdomen.

Mr. S—, aged 38, lived in Australia during eighteen years, chiefly at the diggings. For the last three years of this time he observed his abdomen increasing in size, with a constant wearing pain in his back. Becoming alarmed, he returned to England in 1868. I first saw him on February 14th, 1868. He then complained of enlarged abdomen, pain in the lumbar region, confined bowels, a frequent necessity for passing urine, loss of appetite, and restless nights. He was anxious about himself; he was not emaciated, nor his skin sallow; his pulse was 80. The abdomen was distended by a large nodulated tumour extending from the right iliac region nearly to the liver, and a small portion in the umbilical and left iliac regions, giving an irregular one-sided appearance, the circumference of the body measuring over the umbilicus 36 inches. The uncomfortable symptoms appeared to arise from mechanical pressure. Enemata relieved the bowels; abdominal support lessened the bladder-irritation and back-pain. A surgeon, who was consulted as to the nature of the tumour, feared it might be malignant. In addition to the treatment above mentioned, iodine was given internally and rubbed in as an ointment externally. The tumour still increasing, magnetic galvanism was applied, which decidedly relieved the pain and seemed to lessen the size of the tumour. Our efforts were now directed to improving his general health by iron, a generous diet, and a quiet regular mode of living, hoping thus to ease his downward course. Still Mr. S— kept about, visiting his friends, and really enjoying life; nor did he become emaciated or look anxious, although troubled about the tumour. On the 23rd of July in the same year, while he was laughing at supper, the tumour suddenly gave way and dispersed; he immediately became faint and collapsed. Living three doors from him, I was with him in a few minutes. He was cold and pulseless, and apparently dying: the tumour was gone. I gave restoratives; he became violently sick and slowly revived, a deep rose-coloured rash gradually appearing all over his body. The next morning the redness of his skin was intense, and the heat and irritation intolerable; his pulse was 130;

there was tenderness over the abdomen, but no distension, and no tumour could be detected. After a few days the rash subsided, and all his symptoms abated. In a fortnight he was apparently well, and has since remained quite well. He left England for Australia in 1869, and is now (May 1871) carrying on an active business in the Feejee Islands. His friends heard from him a few weeks since that he was quite well, and had had no return of the tumour. It was probably hydatid. The galvanism was certainly useful in abating pain and arresting growth. In similar cases of obscure tumours in the abdomen or elsewhere, I have found galvanism to relieve pain and appear to check growth.

STEPHEN S. ALFORD, F.R.C.S., Haverstock Hill.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN
THE HOSPITALS OF GREAT BRITAIN.

ST. BARTHOLOMEW'S HOSPITAL.

CASE OF CHOREA, WITH MITRAL REGURGITANT MURMUR, TREATED
BY CONIUM.

(Under the care of Dr. ANDREWS.)

THE patient was a boy twelve years of age, who was admitted on May 4th. There was a history of pains in the fingers a week before admission, but no other evidence of rheumatism was obtained. The left side of the body had been affected four or five weeks, and the right side one week. There was a systolic murmur at the apex of the heart which was audible beneath the angle of the scapula. His general health was good. He was ordered a mixture containing seven and a half minims of tincture of digitalis and ten grains of bicarbonate of potash four times a day. He continued this medicine until May 15th, when his pulse, which had been 60 on the 8th, now fell to 48. The murmur was still heard, but the movements were somewhat diminished. On the 18th he was ordered half-drachm doses of extract of conium three times a day. Four days afterwards he had considerably improved; the movements were diminished, and his general condition was better, but his pulse was still 44, and there was some loss of power on the left side. From this date, May 22nd, the movements steadily diminished, and the murmur became fainter. On June 5th he was up; the movements were slight; he could walk fairly well; the murmur was almost gone and was not heard behind, and his pulse had risen to 56.

UNIVERSITY COLLEGE HOSPITAL.

SKIN DEPARTMENT.

UNUSUAL FORM OF ERUPTION IN A CHILD, ATTRIBUTED TO
SYPHILIS: MERCURIAL TREATMENT: CURE.

(Under the care of Dr. TILBURY FOX.)

LYDIA —, aged 2½, was admitted into the children's wards, under the care of Dr. Tilbury Fox, on February 26th, 1871. The parents were said to be healthy, but the mother had had five miscarriages. There were six children living. The mother was suffering from symptoms of secondary syphilis, though these were not well marked. However, the face was deeply pigmented about the central parts—brownish in aspect. She suffered from neuralgic pains about the shoulders and through the head, and there were some minute points of ulceration about the throat. She had improved under the influence of mercurials and tonics. The little girl was not nursed by the mother at all, but brought up on goat's milk. She was very delicate, so that it was a matter of doubt whether she would be reared. She was, when born, a small child, and had "a cold in her head" some time, but apparently no eruption about the body. She progressed favourably until two years of age, when she became very fat. She then seemed to catch cold in the eyes; then some spots "like small-pox places" came over different parts of the body—first on the wrist of one side, then on the cheek (site of the spot still visible as a stain), one on the elbow (remaining still visible). But, as the spots gradually increased without any febrile or marked constitutional disturbance, the medical man who first saw the case and pronounced it small-pox, altered his opinion and said it was not that disease. There next appeared a very fine rash over the body. The disease had been taken for struma, the original spots having begun to ulcerate; and the child had been put during the last five months upon cod-liver and other antistrumous remedies.

State on Admission.—The child looked well fed, and was apparently well cared for. She lived well. The first thing that attracted attention was some conjunctival congestion, which made the eyes look red; together with an incrustation about the nostrils. On examining the nose, it was seen that the child was suffering from ozæna with free discharge, the openings of the nostrils being very red and contracted, and in parts stopped up by dirty scabs. The child snuffled a great deal. The teeth were not pegged, though they were not well formed. There were a number of minute pustules scattered over the scalp and seated at the hair-follicles; they were hard, small, and distinct one from the other. Scattered over the trunk were a number of "white festering heads", as the mother termed them; a few ecthymatous-looking spots, but with a depressed centre and a raised edge; and there were five or six places, two of the size of threepenny-pieces on the abdomen, one on the elbow of each side, and one in the flanks, covered by dark semi-rupial crusts, which, on being detached, exhibited unhealthy deepish ulcerations, with sharply cut edges, beneath. The mother said that the white festery heads became pustules, and then assumed the characters of the scabbed places. There was one ecthymatous spot on the knee, which had much induration about it. The white festery heads were not unlike variola; they were varioliform, certainly, and were evidently inflammations of the upper portions of the hair-follicles. The whole abdomen was uniformly dotted over with minute, pale, flesh-coloured papulæ—many of the size of pins' heads, some larger—that seemed to be solid lymph-formations. A few were large enough to be called tubercles; on the leg there were a dozen in front. They all felt hard and elevated, and some of them enlarged and ulcerated. The child did not suffer from pruritus. The mother said that, with the exception of this latter rash, which had appeared recently, the disease had remained nearly *in statu quo* for the last six months or more. There did not appear to be any rheumatism or sore-throat. There was no evidence whatever of struma about the child. She had never had enlarged glands or the like.

The child was given a grain of grey powder every night and morning, and a grain of iodide of potassium for a little while. The fine rash soon disappeared; the rupial sores healed under the use of black wash; and the child became convalescent, when cod-liver oil and quinine were given for a while.

REMARKS.—The case was an unusual one. The eruption in the first instance was varioliform, but it lacked the concomitants of an acute specific disease—there was no pyrexia, no itching, no heat; nor was its seat or relation to constitutional conditions like that of any acute febrile disease. Again, the varioliform spots degenerated into pustules, and subsequently into ulcers covered by thick dark-coloured crusts. The disease was indolent, painless, chronic. These transitional stages themselves should have been regarded, no less than the untypical character of the eruption *quoad* non-syphilitic eruptions, as indicative of syphilis, especially as the mother herself afforded evidence of syphilisation, and the child herself was suffering from ozæna. But then, subsequently, the occurrence of a papular or minutely tubercular rash, bringing out into strong relief the multiform character of the eruption (the pimples suppurating and ulcerating), with the entire absence of any evidence of the strumous diathesis, should have rendered the diagnosis all the more easy. The failure of cod-liver oil, etc., to effect any improvement, and the rapid amelioration in the condition of the child under the influence of mercurials, were cited by Dr. Fox as additional evidence of the syphilitic nature of the disease.

WEST LONDON HOSPITAL.

RENAL COMA FROM CONTRACTED GRANULAR KIDNEY: ABSENCE OF ALBUMINURIA: DEATH.

(Under the care of Dr. GODDARD ROGERS.)

THE following case presents several points of interest, not the least interesting of which, Dr. Goddard Rogers remarked, was the disturbance of the cerebral functions for at least thirty-six hours, which he believes pointed to irritation of the tubercular quadrigemina. The entire though rare absence of albuminuria in contracted granular kidney is a fact not sufficiently known. The notes are chiefly those of Mr. S. E. Lee, one of the house-surgeons.

H. L., a married woman, aged 36, walked into the Hospital on the 5th January, accompanied by her husband, and stated that she had been ailing with pain in the head for a fortnight. According to the husband, however, the pain had troubled her, on and off, for upwards of a year. Her sight was good, her speech clear; and the urine, which was passed freely, was unclouded, of normal specific gravity, and free from the slightest trace of albumen. On the 7th, she complained of total loss of sight, the other symptoms remaining as before. Beyond a purge,

no treatment was adopted. On the 8th, she had four severe convulsive seizures, and never recovered her speech. Coma set in on the 9th, and she expired next day.

At the *post mortem* examination thirty hours later, the brain was found to be firm and apparently healthy. Each lateral ventricle contained about a drachm of clear fluid. The lungs were healthy; slight pleuritic adhesions existed on both sides. There was trifling hypertrophy of the left ventricle, otherwise the heart was healthy. The liver and spleen were natural. Both kidneys were excessively granular, and the capsules extensively adherent.

TUNBRIDGE WELLS INFIRMARY.

CAST OF THE FEMALE BLADDER.

(Under the care of Dr. J. R. WARDELL.)

AT the meeting of the East Sussex district of the South Eastern Branch, on May 10th, Dr. Wardell exhibited an extraordinary pathological specimen, consisting of what seemed to be the exuviation of the entire mucous membrane of the urinary bladder, in a woman aged 28, admitted into the infirmary. The mass was absolutely seen to pass out of the bladder by the house-surgeon, Dr. De Havilland Hall. The following are the clinical details of the case furnished by Dr. Wardell.

M. B., aged 28, married, the mother of three children, was admitted on April 14th, 1871. On the 9th she had gone to bed apparently well. In the middle of the night she awoke up and tried to pass urine, but was unable to do so. The next day, at noon, a catheter was introduced, and the urine was drawn off. Retention continued until her admission. The secretion was foetid, and contained a large quantity of mucus. On admission, she complained of great pain over the pubic region, accompanied by straining and a constant desire to micturate, but all attempts to do so were ineffectual. After she had been in the Infirmary about half-an-hour, Dr. Hall was hastily summoned to the ward, as she had declared that "something within her had broken". On introducing the finger into the vagina, the legs of a foetus were felt protruding, and in the course of an hour a foetus of from three to four months was expelled. The placenta came away three hours afterwards. The patient was soon able to pass urine. During the next three or four days she had incontinence. The urine was very offensive, and contained a large quantity of mucus. Twelve days subsequently to admission, she was seized with great pain over the pubic region, which was only partially relieved by grain-doses of opium. On the morning of the 20th the house-surgeon was again hastily called to the patient. She was in excessive pain, and the cause of her suffering was ambiguous. Digital examination felt a substance being expelled; and visual inspection showed a mass of something in the process of being passed through the meatus urinarius. It was a membranous substance; it felt resisting and organised. After the lapse of half-an-hour, this slowly protruding mass was fully expelled. On examination, it almost seemed as if the whole of the mucous coat of the organ had been thrown off. At the moment of its expulsion the urine gushed out with great force and in large quantity. The woman from that time obtained instant relief, and continued to improve daily. She was treated with sedatives, and requested to drink large quantities of barley-water and milk and water. At the date when this case was related (May 10th) the secretion was nearly normal, and the patient was not at all troubled with a desire to micturate.

Dr. Wardell observed that he had referred to several works on pathology, but could find nothing resembling the case now narrated. He said he was confidently certain the mass passed out of the meatus urinarius, because the placenta had been thrown off in due time, and the substance, on minute inspection, had nothing of placental characteristics: it was too large, was not of the placental configuration, and not vascular, there were no tufts, and no signs of funal insertion; because on its inner surface there were gritty deposits, evidently consisting of oxalate of lime and uric acid; because Dr. Hall felt something like a foreign body when he introduced the catheter; and, above all, because the house-surgeon could not be mistaken when he said he saw it coming through the meatus. Again, there had been the common symptoms of vesical inflammation; there had been localised pain, a loss of the normal contractile power of the organ, a foetid secretion, and an abundance of stringy tenacious mucus. Dr. Wardell regarded the product as a croupous plastic exudation, just as we sometimes discover casts thrown off from the trachea, the bronchi, etc. The most remarkable feature in the case was the evident and speedy restoration of the function of the bladder. Having got rid of that which came to act like a foreign body as it were, the organ recovered its natural functions.

THE Subscriptions to the Association for the year 1871 became due in advance on January 1st. All which are not already paid, should be forwarded to the General Secretary, Mr. T. Watkin Williams, 13, New Hall Street, Birmingham; or to the Secretaries of Branches.

BRITISH MEDICAL JOURNAL.

SATURDAY, JUNE 10TH, 1871.

MEDICAL CONSULTATIONS.

THE letter of Dr. Banks, the President of the King and Queen's College of Physicians in Ireland, on the subject of the consultations with Mr. Ledger Erson by several leading physicians, of whom he is one, will claim attention. Of this particular case Dr. Banks disposes in two lines: "It so happened that I did not then know that he did not possess some one of the many qualifications which entitle men to practise or even to be placed on the *Register*." That entirely disposes of the matter. It is certainly not superfluous that such a statement should be made, for the sake of the profession in which Dr. Banks holds a notable personal and official position; for Mr. Erson's name has been brought so prominently before the whole public by the recent trial, that the official representatives of the Branch Medical Council and of the Apothecaries' Society found it necessary to declare that he was not on the *Register*, or possessed of an apothecary's licence; and the only fact in his medical relations which remained patent and unexplained was his declaration that he had consultations with some well known physicians and surgeons holding public appointments. It is perfectly well known that this gave rise to great scandal in the profession and out of it; and nothing could remove that scandal, under the circumstances, but such a communication as Dr. Banks has now made to us. The interests which in the interim and under any continued silence were suffering, and must have suffered, were not so much those of individuals as of the whole profession and the public. This letter suggests that the character of its author should have sheltered him from attacks. We think so too; and, if there were anything in the observations that appeared which gave ground for that retort, we are anxious, by directing attention to it, to give it considerable prominence and full force. It will, however, certainly be remembered that we were forward in giving its due place to that consideration; but we held then, and now, that high position and character did not in such a case release their possessor from the duty of preventing a public injury by a public statement, such as that which is now made; and that, on the other hand, in the absence of such a statement, the influence of office and character might tend to increase the weight of a deducible precedent fraught with public injury. One word further will close this part of the question. No part of the comments in our columns were from the pen of "our Dublin correspondent". The articles which appear in the editorial column devoted to events of the week in Ireland are from various pens and different sources. The sole responsibility of what appears there is editorial; and any surmises as to authorship would have many chances of being, as in this case, mistaken.

The President of the Dublin College wisely, however, does not confine himself to the discussion of this particular case. We had intimated its importance in relation to the question of the principles which should guide physicians generally in accepting consultations. This general question Dr. Banks frankly accosts in some important propositions. "I know, and it is the experience of others, that meeting persons admittedly unqualified—such, for example, as students and assistants of medical men in general practice—cannot and ought not to be avoided." From some points of view, this is a proposition which will claim assent. From others, we should be disposed, notwithstanding the high authority which enunciates it, to add qualifying considerations; and, when it is added that "concerning these no question can arise," we should express still more decided doubts. There are a

great many unregistered quacks who claim a medical status in practice precisely on the ground of a past temporary position as "a student of medicine", or of a chronic assumption of that character. These are a dangerous class, precisely because they are plausible; and very serious questions may and do arise in respect to them. So, as to unqualified assistants, the employment of them in practice is altogether doubtful. The Poor-law medical authorities distinctly refuse to recognise them, or to accept them as deputies; and that refusal has been applauded by the profession, and endorsed emphatically by the public press. The employment of unqualified assistants is notoriously open to very great abuse; and it is not necessary to recall past correspondence in this and every other medical journal to bring to the minds of most physicians and general practitioners instances in which it has been the subject of great complaint;—in which unqualified assistants have been made practically cheap substitutes for qualified partners, established separately in distant villages, and employed under the doubtful sanction of a diploma not earned by themselves, and of guarantees to which they have never subscribed, to carry on really independent practices. It seems, therefore, clear that this proposition of the President of the Dublin College ought hardly to be accepted in the broad unqualified shape in which he lays it down.

The sequent proposition seems also to stand in need of some qualifying clause. There is a fund of truth in the statement, and it deserves always to be remembered, that "physicians may often inadvertently consult with practitioners who afterwards are found to be unqualified and unregistered". We shall not cavil at the word "often" here; but some hesitation arises on considering the full bearing of the further statement: "I know of no means by which this can be avoided, unless consulting physicians forget (which I trust they never will) that they are gentlemen, and not detectives, making the *Medical Register* their *Vade Mecum*." In the aspiration we shall all, of course, cordially join; and of that type we can desire no more satisfactory model than Dr. Banks himself. But, after all, the *Medical Register* is no unworthy *Vade Mecum* of the consulting physician, if he be in danger of being often entrapped into consultations with persons unqualified and unregistered. He wishes to avoid consultation with such persons, and would prefer declining it beforehand to regretting it afterwards; and, supposing that he be invited to consultation with a stranger whose qualifications find no place there, it does not occur to us that the ascertaining that fact, and putting the frank questions necessary to settle the question, involves anything other than what accords with the highest professional character, or than is due to the professional and public interests coincident in such case with those of the individual consultant. We cannot but feel that it would be easy to make such application of the principle implied in the objection to make the *Medical Register* a *Vade Mecum*, as might be absolutely destructive to the accepted rule which we are satisfied Dr. Banks wishes to uphold. If not a *Vade Mecum*, it must certainly be a guide in doubtful cases; and the more accessible it is, and the more carefully it is consulted in such cases, the better for consulting physicians as a class, the better for the profession as a whole, and the better for the public.

Since the above was written, and when going to press, we have received a further letter from Dr. Gordon. It speaks much for the unchecked warmth of the writer's feelings. He is evidently of opinion that language which he would most certainly have resented with some intensity if applied to his own expressed opinions or those of his friends, may with propriety be addressed to the editor of the JOURNAL. We do not care to discuss that theory with Dr. Gordon, or to resent his expressions. It is a sufficient censure on them to print them in deference to his position. Dr. Gordon lays down a canon of consultation on which we are anxious to collect opinions. He asserts that it is "familiar to all gentlemen in extensive practice that, while no physician or surgeon who regards the honour of the profession will knowingly consult (*i. e.*, 'take counsel, deliberate in common', Johnson) with an irregular practitioner, instances are of daily occurrence where patients apply for advice accompanied by a senior medical student, or

an apothecary's assistant, or a druggist, or other such attendant; and the advice and directions are given without even the semblance of a consultation, although the attendant may choose to dignify the visit with such title." We view such a statement with undisguised alarm, and we meet it with unqualified dissent. The treatment for gain of patients by a "senior medical student", or a "druggist", or "other such attendant", is distinctly illegal. To sanction it is not only contrary to law; it is contrary to the honour and interests of the profession, and adverse to the welfare of the public. It is condemned by every authority, written and unwritten, by the rules of etiquette, by every code of medical ethics, and by the Medical Acts. It is alike opposed to the statutes of colleges and the statutes of the realm. Physicians who accept patients so accompanied, under circumstances which can permit such attendant, if he "choose to dignify the visit by the title of a consultation," do not, in our opinion, take an accurate view of their responsibility to the law, the profession, and the public. Dr. Gordon may take a different view; but we think that this is a question of principle, and not of form; and, in stating our objections to his proposition, we adopt the practice of looking to principles and matters of substance, and not form, which he is so good as to recommend to us.

THE MEDICAL COUNCIL.

THE return of Earl de Grey recalls attention to the affairs of the Medical Council. The vacancy created by the resignation of Dr. Rumsey of Cheltenham, as one of the Government nominees, will probably be filled after a brief delay. Passing over much that might be said, we shall only now and here point out that two of these nominees of the Crown are metropolitan men, Dr. Sharpey and Dr. Quain, largely identified with University associations, and the third, Dr. Parkes, largely influenced by similar associations, and that none of them are identified with those associations of practice in the provinces which would enable them to give even one voice to the opinions upon the subjects decided in the Council of the great body of provincial practitioners. Amongst that body, some certainly exist who are sufficiently eminent and sufficiently judicious and catholic in their views to be worthy to replace Dr. Rumsey from amongst this body to which he belonged. We are very far, indeed, from assuming to dictate to the Government who should be its nominee, or from suggesting the names of individuals. A communication, however, which reaches us from a quarter in which we repose confidence, states that there is reason to apprehend that a metropolitan practitioner will be nominated. Now, we have good reason to know that such a nomination will cause grave dissatisfaction certainly to a very large number of leading provincial surgeons and physicians, who believe that provincial practitioners are insufficiently considered in the existing constitution of the Council, and who will regard the substitution of a metropolitan practitioner for a provincial member of the profession, such as Sir Charles Hastings and Dr. Rumsey, with extreme pain. Nor is it reasonable to doubt that this feeling will become general, if the subject come under discussion through the provinces.

The Crown nominees are at the present moment the only persons who can enter the Medical Council entirely unfettered by any afterthought or relation to corporate or University interests, and without any representative or elective relation to such institutions. They stand presumably free from conscious or unconscious bias in discussing the public and professional relations of the Council business; and, amidst much that has given rise to difference of opinion, there has always been a consensus as to the usefulness of including amongst these gentlemen one who comes from the provinces, who is recognised, therefore, by the great mass of the profession as being neither metropolitan nor corporate in his unconscious prejudices, but as being a representative man chosen by the Crown from among themselves. Such appointments as those of Sir Charles Hastings and Dr. Rumsey were peculiarly wise, just, and acceptable. It would be a misfortune if the next appointment

were based upon different principles, and we heartily trust that whoever be chosen will be a provincial member of the profession. It would, of course, be idle to suppose that the advisers of the Crown are likely to make this appointment on shifting grounds, or from motives easily shaken by a few printed lines, and a roughly stated argument. But on this subject there is a strength of feeling which we have peculiar facilities for gauging, and to which it is our duty to afford expression. We seek to avoid occasions of collision between professional wishes and government action, where harmony is not less easy and by far more desirable; and these preliminary words will, therefore, not be without justification, even if they be without use.

DR. MEADOWS has been appointed Consulting Physician-Accoucheur to the St. John's Wood and Portland Town Provident Dispensary.

PROFESSOR HUXLEY will distribute the prizes at the Charing Cross Hospital to-day, Friday, June 9th, at 3 P.M.

THE FOUNDATION stone of the new Infirmary at Yeovil was laid on Wednesday in Whitsun week by Miss Goodford, daughter of the Provost of Eton.

DR. GUY's third lecture at the Royal College of Physicians, "On War in its Sanitary Aspects, with special reference to the period from 1793 to 1815," will be delivered on Tuesday, the 13th, and not on Wednesday, the 14th, as previously stated.

AT a public meeting at the County Hall, Carlisle—the Bishop of the Diocese in the chair—it was resolved to carry out a recommendation of the Committee to considerably enlarge the Cumberland Infirmary; and subscriptions towards that object were announced, amounting to nearly £2000, besides numerous promises.

DR. CHAMBERS will deliver the Harveian Oration at the College of Physicians on Thursday next. As we have already announced, the subject of the oration will be the Progress of Therapeutics; and, by arrangement with the orator, it will appear *in extenso* in the JOURNAL of the Association, of which he is a distinguished member.

THE deaths in London last week were 20 above the average. The total number was 1393. The fatal cases of small-pox in London, which in the two previous weeks had been 267 and 257, further declined last week to 229. The fatal cases, the Registrar-General states, showed a large increase in the north districts.

THE London Committee for the relief of the sufferers at Buenos Ayres, in addition to the pecuniary aid which they will offer according to their means, have, we believe, sent out very large quantities of carbolic acid and other disinfectants, and are consulting eminent British authorities as to the best means of meeting the insanitary conditions of soil and water to which the epidemic owes much of its virulence.

IT is announced that the Marquis of Bute will preside at the anniversary festival of the North London Consumption Hospital. A new feature on the occasion will be the presence of ladies at the dinner. The Committee are making unusual exertions to obtain funds for the erection of a new hospital, as the premises at present occupied for the purpose will probably be pulled down in two years' time.

WE have received, through the kindness of Dr. Forbes Winslow, a very graphic and powerful account, from the pen of Dr. Brierre de Boismont, of the domestic events that signalled the misrule of the Commune, of the excitement attending it, and, as he believes, the contagious mental alienation which characterised the men of the Commune, whom he believes to have been smitten with the *morbus democraticus*. The narrative being of great length and of a generally political and socially narrative character, it must, we fear, give way in our columns to papers of a more exclusively professional character.

THE foundation stone of the West of England Sanatorium, Weston-super-Mare, was laid on Whit Tuesday by the Earl of Carnarvon, according to ancient Masonic custom.

SELECT COMMITTEE OF THE HOUSE OF COMMONS ON BABY-FARMING. ON Monday the Committee met again after the Whitsuntide recess, when Mr. Curgenven, Secretary of the Infant Life Protection Society, gave a full and very valuable account of the systems operative in France, Belgium, and England. On Thursday, Mr. Benson Baker of St. Marylebone, and Mr. Gregory of the Foundling Hospital, gave important evidence before the Select Committee of the House of Commons on the protection of infant life.

ROYAL COLLEGE OF SURGEONS LECTURES.

PROFESSOR BIRKETT, F.R.C.S., brought his course of lectures on the Nature of New Growths to a close this day (Friday). Mr. J. W. Hulke, F.R.S., will commence his course of three lectures on the Histology of the Eye, in continuation of his course of last year. It is stated that these gentlemen do not intend to offer themselves for re-election to the professorships which they now hold.

SMALL-POX IN SOUTHAMPTON.

THE Clerk to the Guardians of the Poor of Southampton asks us to state that the actual number of cases of small-pox in the town is only 187, including those in the workhouse. These figures, he informs us, are the result of a house-to-house visitation just completed on the recommendation of Her Majesty's Privy Council.

ST. MARY'S HOSPITAL.

THE governors of this hospital have liberally relinquished, for the benefit of the medical school attached to it, the proportion of students' fees hitherto paid to the hospital, amounting to about £200 *per annum*. The staff of lecturers propose to devote a portion of it to the payment of an annual salary of £100 to a medical tutor, who is to be soon appointed, for the purpose of assisting the pupils in the practical part of their studies.

THE SCHOOLS OF BERLIN AND VIENNA.

IN the present state of affairs, the medical teaching of Berlin and Vienna is of peculiar interest to those English and American students who desire to supplement their education by availing themselves of the facilities afforded in continental schools. We have been at some pains, therefore, of late, to secure satisfactory notes of the special advantages and disadvantages of the schools of Berlin and Vienna; and the papers of Drs. Payne and Swanzy, and letters from special correspondents on the spot, have given valuable information. The letter which we publish to-day, from a highly qualified special correspondent in Berlin, will be read with great interest.

THE ROYAL SOCIETY.

AT the Royal Society on Thursday evening, Dr. W. Budd, Mr. G. Calender, Dr. Quain, and Mr. J. Wood, were elected Fellows. We congratulate the new Fellows and the profession on the distinct recognition, in their case, of direct and well-founded professional claims. In by far the greater number of instances the selection is made on biological, chemical, or other scientific grounds, apart from medical or surgical claims. The number of candidates admitted to the Royal Society for medical and surgical eminence is by far too few.

DEATH WHILE UNDER THE INFLUENCE OF CHLOROFORM.

ANOTHER death under the influence of chloroform, we regret to say, occurred at the Great Northern Hospital on May 31st. The patient was a boy aged 8, who had been under treatment for some months for a severe burn, occupying the dorsal and lumbar regions, with protracted stage of ulceration, for the cure of which skin-grafting had been several times attempted. The pain caused by dressing the wound was so great, that it was thought expedient to administer chloroform on the

occasion on which the fatal occurrence took place. The chloroform, which was given while the patient lay on his abdomen, had been discontinued for several minutes, when it was observed that breathing had ceased. Every means were adopted to resuscitate life, but without avail. We shall publish in our hospital reports the details of this case, which is also interesting as a unsuccessful case of skin-grafting.

THE AMALGAMATED EXAMINATION SCHEME.

IT is sad to hear that "legal difficulties" have prevented the College of Surgeons' Committee from adopting the scheme of amalgamated examination to which we last week referred. It is not unfair, we hope, to remind the College that legal opinions depend very much indeed upon the manner in which the case is framed; and that on this precise question of the mode of appointing examiners, and the limitations of the "power" of the Council to select them outside of the Council, diametrically opposite opinions were obtained from the law officers, according with the difference of prevailing desire in the Council at the time when such opinions were taken: the second time, it was declared legal to look outside of the Council. The last scheme of the College of Physicians was eminently and essentially liberal—purely in the interest of the profession and of the public. It will be in every way unfortunate for the College if it be "compelled" to withhold its assent. This form of compulsion will neutralise its subsequent right to object to others less palatable. If it cannot do what it would, it will have little right to complain of being presently compelled to do what it ought.

SNAKE-POISONING.

FROM official and reliable returns of fatal cases of snake-poisoning, collected by Dr. Fayrer from the principal provinces of India, it appears that 11,416 deaths from snake-bite were recorded in Bengal, North-West Provinces, Punjab, Oude, Central Provinces, Central India, and British Burmah. No returns were made from the Madras and Bombay Presidencies and other parts of India; and Dr. Fayrer estimates the total annual mortality from this cause at not less than twenty thousand persons.

ROYAL DEATHS FROM SMALL-POX.

BY way of impressing the ravages of small-pox in the pre-Jennerian period on people's minds in a manner more picturesque than that of ordinary statistics, Dr. John Gairdner (*Edin. Med. Journal*) selects the history of a few royal houses. Among the family of Charles I of Great Britain, of his forty-two lineal descendants up to the date 1712, five were killed outright by small-pox; viz., his son Henry, Duke of Gloucester; and his daughter Mary, wife of the Prince of Orange, and mother of William III; and three of the children of James II—viz., Charles, Duke of Cambridge, in 1677; Mary, Queen of England, and wife of William III, in 1694; and the Princess Maria Louisa, in April 1712. This does not include, of course, severe attacks not fatal, such as those from which both Queen Anne and William III suffered. Of the immediate descendants of his contemporary, Louis XIV of France (who himself survived a severe attack of small-pox), five also died of it in the interval between 1711 and 1774; viz., his son Louis, the Dauphin of France, in April of 1711; Louis, Duke of Burgundy, son of the preceding, and also Dauphin, and the Dauphiness, his wife, in 1712; their son, the Duc de Bretagne, and Louis XV, the great-grandson of Louis XIV. Amongst other royal deaths from small-pox in the same period were those of Joseph I, Emperor of Germany, in 1711; Peter II, Emperor of Russia, in 1730; Henry, Prince of Prussia, 1767; Maximilian Joseph, Elector of Bavaria, December 30th, 1777.

ESTIMATED POPULATIONS.

THE remarkable accuracy with which Dr. Farr had estimated the increase of the population of London (the estimate differing from the census result only 4,173 in a population of three millions and a quarter) has been the subject of justly and warmly complimentary comment. The inference is hasty, however, that the possibility of making such

corrections as give this surprising accuracy to his calculations affects the necessity for an actual decennial enumeration. The estimates as to other towns were very wide of the mark—partly because the calculation of the third correction—for the decrease in the rate of increase—and its application in all cases, would be very laborious; and partly because, even if this labour were gone through, the results would still be unreliable. In a population so enormous as that of London, the various sources of error are so numerous and conflicting, and the sum of vitalities is so large, that they counterbalance each other, and leave the great statistical laws scope to move freely in a straight line, unaffected by disturbance. It is not so in other smaller centres of population: there, local, temporary, and unforeseen sources of error produce unbalanced and uncalculated deflections, and the estimates of population do not and cannot present any of the marvellous accuracy which has signalled the Registrar-General's forecast of the rate of growth of the population of London.

QUARANTINE IN ITALY.

As it is expected that a large number of the Italian inhabitants of Buenos Ayres will, in flying from the yellow fever prevailing there, return to their native country, the government of Italy has sent Professor Michelacci to report on the quarantine accommodation at Varignano. It is calculated that the lazaretto at that port can receive two thousand persons; while, in case of necessity, additional numbers can be accommodated in barracks or tents. A person who landed lately at Varignano died with symptoms which at first led to the suspicion that he had yellow fever. At the necropsy, however, it was found that he had been suffering from cancer of the stomach.

THE CLUB-PAYMENTS MOVEMENT.

A LETTER from Mr. Manley of West Bromwich describes the disappearance of the last trace of any material good resulting from the recent agitation, and illustrates by a most striking and painful statement the causes of the failure. The circumstances, as described, wear an aspect which reflects so severely upon the gentlemen named that we trust they may be enabled to offer some explanation, which we shall in that case be happy to publish.

SMALL-POX IN FLORENCE.

THE epidemic of small-pox continues to spread in the province of Florence. In the city itself there were 43 new cases from May 10th to May 20th; of these, 17 occurred in vaccinated and 21 in non-vaccinated persons, and in the remaining 5 the vaccination was doubtful. In the same period there were 12 deaths from this disease; viz., 2 in vaccinated and 9 in non-vaccinated individuals, and 1 in a person whose vaccination was doubtful. From May 7th to 27th, there were in all 30 deaths from small-pox in the city of Florence.

THE STRASBURG MEDICAL SCHOOL.

THE medical school of Strasburg will probably be transferred to Lyons. A deputation of the Strasburg professors and the director of the secondary school of medicine at Lyons have gone to Versailles to hold a conference on the subject with the Minister of Public Instruction.

THE EPIDEMIC AT BUENOS AYRES.

THE following valuable extract, with which we have been favoured, from a letter received from Dr. A. E. Leeson of Vevey, for many years a resident and medical practitioner in Buenos Ayres, will be found to throw more light on the causes and character of the epidemic than any document yet published.

"There can be no doubt it is yellow fever; nor is it an unknown visitor in the River Plate. You remember the epidemic in Monte Video in 1857, when it spread, after having raged for five or six years in Rio and other Brazilian ports. Towards the close of that summer (March 1857), we had a few cases in Buenos Ayres. The following summer, we had it severely. It broke out in March, first in the Calle Balcurce, and afterwards in the lower part of the Calle Parque. Leslie's Hospital was full of it, and there I had an abundant opportunity

of studying it. Lezamas (quinta) House was taken as a lazaretto, and at one time contained eighty cases. The deaths, however, never exceeded forty or fifty daily; and the whole mortality on this occasion was under a thousand. For the next two years we saw nothing of yellow fever; and it likewise disappeared from Rio about this time. When I passed through this city in November 1868, Dr. Fairbairn told me he had not seen a case for years. He had not long to wait, however; for it reappeared in Rio in January 1869 and the following summer. In January, February, and March, 1870, the disease was very prevalent in Rio. Towards the end of the latter month, a Liverpool steamer touched there, making a few days' stay; and then came to Buenos Ayres. All were reported well on board; and, after two days' quarantine, the passengers were allowed to land. Two of these, however, were ill, but made great effort to keep on their feet. One of these, the Rev. Mr. Lett, was attended by me through a well marked attack of yellow fever, barely escaping with his life. The other, a Frenchman, put up at the Hotel Roma, Calle Cungallo, and there died, after five days' illness, attended by my friend Dr. Quincke, who knows yellow fever too well to be mistaken. Next to the hotel was a lodging-house kept by one Berdier, inhabited by a number of Italian workmen, whose wives washed for the hotel; one of these, who washed the dead man's linen and bedclothes, fell ill, and died on the fourth day. After this, many others in the same house were attacked. When sixteen dead bodies had been taken out of this and another lodging-house near, kept by the same Berdier, the authorities thought it prudent to close the concern. But the disease had spread to the neighbouring houses, killing many of the inhabitants. During April and May, it spread slowly from house to house, but not spreading out of the neighbourhood till the last week or so. Towards the end of the latter month, the frosts nipped the epidemic; and it finally ceased early in June, the last patient being an Irish girl whom I saw *in extremis* on June 3rd. From this history of the appearance of yellow fever in Buenos Ayres, you will see that on both occasions it forms only a part of a more general epidemic, which commenced in Brazil, and spread southwards. Before leaving the subject of the nature of the scourge which is now devastating Buenos Ayres, let me observe that there is no disagreement amongst medical men who know yellow fever; all are unanimous. Alston, who had it and studied it at St. Thomas in the epidemic there, Ayer, Fink, Quincke, all say the same thing. Neither typhoid nor typhus is so fatal, nor kills so rapidly. It is only the journalists who talk of typhus; they think the word less alarming to the public. Now, as to the predisposing causes which have rendered Buenos Ayres a favourable field for yellow fever—for its generation from within, or its propagation from without—just reflect on its condition as to hygiene. The city is built on a bed of very porous sandy earth, thirty to sixty feet deep, which rests on a layer of compact (tosca) indurated clay. On the latter rests also a variable depth of water, which circulates freely through the sandy earth. All the privies and water-closets of the town empty themselves through cylindrical shafts or cesspools into the water, where their soluble matter spreads laterally in all directions. As long as only soluble matters find their way down these cesspools, the chief harm done is to contaminate the water, which is, unfortunately, that drunk by a large part of our population. How often do we not see the wells and cesspools only a few yards distant one from the other! When rubbish and *vasura*,* however, are thrown in, the water is choked, and the well becomes a cesspool. This is the condition of three-fourths of the privies in Buenos Ayres; and the consequence is, that the ground on which the city stands is saturated with night-soil to within a few feet of the surface. Hence the contamination of air, of water in rain-water tanks, etc. I examined some of the earth thrown up when excavating the cellars of the London and Rio Bank, and found it charged with animal matter. When wet and heated slightly, it smelt very badly. Such was the case, too, in the house of my poor coachman, in which the disease (and fever) never made its appearance till the landlord made a tank for rain-water in the front court. The smell of the earth turned up nearly turned me sick. The Secretary to the Council of Hygiene was with me; I drew his attention to the matter, and an order was issued forbidding deep excavations during the epidemic. As for the *vasura*, there is no doubt it has a share in the mischief, but, I think, infinitely less than the other matter. Vegetable substances in decay are far less potent than human ordure in procuring human death. As to the *saladeros*,† I think that their evil effects have been overrated. Bauacas is a very healthy place. The Rio Chuelo has a very considerable current, and is a very deep stream. The body of water is sufficient to

* *Vasura* answers to our "dust-bin" clearances, excepting that there, unlike here, the remains of each day's food not consumed is cast into the *vasura*-box.

† *Saladeros*.—The place where the animals are killed, and their skins prepared for export.

absorb an immense quantity of noxious gases. When you think how every part of the animal killed is turned to account, you will see that very little finds its way into the Rio Chuelo."

Evidently very thorough measures of sanitation are here called for.

NÔTRE-DAME AND THE HÔTEL-DIEU.

IT is to the courage and devotion of the *internes* of the Hôtel-Dieu, says the *Gazette Médicale de Paris* of last Saturday, that is due the preservation of the cathedral of Nôtre-Dame. One of these gentlemen, M. Hanot, has addressed to the *Gazette* a graphic account of the circumstances. He was, he says, asleep in the waiting-hall, when he was awakened about three o'clock on the morning of the 24th of May by a noise in the street. On looking out of the window, he saw a number of casks being rolled through an opening in a neighbouring barricade to the space between the hospital and the cathedral (Place du Parvis). M. Hanot awoke one of his colleagues, who was also sleeping in the hall; and, on going to the gate, they found a lieutenant of the National Guard with about a score of dirty youths from 14 to 18 years old, armed with chassepots, demanding a candle, gimlets, locksmith's tools, etc.; and it was learned from them that they were about to set fire to Nôtre-Dame. M. Hanot and his friend on this remonstrated with the officer, representing that to set fire to the cathedral would certainly sacrifice the lives of nine hundred sick and wounded in the hospital. The officer, however, gave only abrupt answers, and reiterated his orders. The director of the Hôtel-Dieu was now sent for; he had a colloquy of half an hour with the lieutenant, the result of which was an assurance that the cathedral would not be set on fire until after consultation with the Committee of Public Safety, and that, if necessary, the hospital administration should receive notice. The officer and his followers having retired, about a hundred nuns, who had been driven by fire out of their convent, applied at the hospital for shelter. At about eleven A.M., a workman observed smoke proceeding from Nôtre-Dame. He gave the alarm at the Hôtel-Dieu; six of the *internes* immediately hastened to the director and urged him to send men and the hospital engine to extinguish the fire. This not being successful, they went themselves to the cathedral, and were joined by some neighbours. The *internes* represented to the people that there were in the hospital at the time a hundred and fifty wounded defenders of the Commune, and that these would be destroyed if its orders were carried out. Having obtained the keys, the *internes*, accompanied by a crowd of men, women, and children, entered the building from the Rue du Cloître Nôtre-Dame. The smoke, however, was so thick and suffocating, that they were on the point of retiring, when a fireman appeared, and, in spite of the prohibition of the Communists, gave his aid. A burning brasier was found at the choir, and was soon extinguished, as was also another placed by the high altar. Air was obtained by breaking some of the windows. The chairs, benches, etc., had been piled up around the pulpit as high as the great organ, and also round the statues of Christ and the Virgin; paper had been laid at the base of the piles. The piled-up articles were carried out by the crowd, and the galleries and towers were all visited, until it was ascertained that there was no further immediate danger. A guard was formed for the purpose of preserving the cathedral; and was not interfered with through the day. At eleven at night, the Isle of the City was in the hands of the army, and the great hospital of Paris, as well as the metropolitan cathedral, were saved.

NATURAL SCIENCE AND MEDICAL EXAMINATIONS IN VIENNA.

THE Medical College of Professors in Vienna has drawn up a series of conclusions with respect to the recent disagreement between Professor Karsten and the students, and intends to submit them to the Government. It is suggested, that botany be taught in a five months' course, as was formerly done by Endlicher in Vienna, and Kosteletzky in Prague. The next recommendation is, that knowledge of natural science, as distinct from medical science in its strict sense, be tested by a special examination—*tentamen physicum*. Further, it is suggested that the amount of knowledge of natural science to be required of medical can-

didates, be defined to such an extent as the professors in the Faculty of Medicine may recognise as sufficient. A set of questions confined within the approved limits is to be drawn up by a committee; and the candidates are to draw by lot those which they are to answer. The *tentamen physicum* is to be undergone after the end of the fourth session. The opinions of the examiners are, it is proposed, to be expressed by numbers, which are to be cast up by the Dean, who is to divide the sum in each case by the number of subjects of examination, and declare the result. One professor only is to examine in botany; namely, he who teaches the science according to the plan agreed on for students of medicine. Lastly, the College of Professors states that, while most deeply deploring the events of May 3rd, it cannot, from the sad experience of the past, regard it as possible for Professor Karsten to perform the duties of an examiner of the students in medicine, without danger of an increasing disturbance of academic discipline. The professors feel themselves bound to express this their conviction to the Government, and to guard themselves against the responsibility of any further unpleasant consequences.

MACROPIPER METHYSTICUM.

THE Kava or Ava is well known as a favourite intoxicating drink of the South Sea Islanders. The extraordinary and disgusting mode of preparing this beverage, by chewing the root, ejecting the saliva into a bowl and fermenting it, has been the means of giving it a greater amount of publicity than it would have otherwise obtained. Many stories have been told about its uses and effects. It appears, says *Nature*, that at one time, before the intercourse with foreigners, the only intoxicating drink known to the natives was the water in which the roots of the kava plant (*Macropiper methysticum*) had been macerated; and this was comparatively little used, except as a medicine, as it was supposed to prevent corpulence. Since the introduction of foreign spirits into the islands, the use of kava has much diminished, though intoxication is none the less common; and with many of the natives kava is still much appreciated, and even many of the lower classes of white people are confirmed kava-drinkers. It is said that, if drunk in excessive quantities, it produces numerous cutaneous diseases, but, if taken in moderation, has no ill effect upon the system. A drink prepared in a similar filthy manner is the South American Piwarri, which is produced by first chewing a sufficient quantity of cake made of cassava meal (*Manihot utilissima*), and then putting the masticated material into a bowl with water, where it is left to ferment for some days, and finally boiled.

LIME AND LEMON-JUICE.

ON this subject the *Pharmaceutical Journal* has some interesting remarks. Recalling the fact that one of the main objects of the Merchant Shipping Act of 1867, commonly called the Duke of Richmond's Act, was to ensure a supply of genuine lime and lemon-juice to the crews of merchant ships, it points out that past experiences went to prove that a large proportion of so-called lime-juice, put on board ships bound to distant parts, consisted of solutions of citric, sulphuric, or other acids, entirely inert, and sometimes harmful. Scurvy continued to prevail; and hence it was enacted that all lime and lemon-juice shipped for the use of sailors shall be examined by a competent officer, mixed with a certain amount of spirit, and bottled under the direction of customs' officers. There can be no reasonable doubt that this system has succeeded remarkably well, as it has secured a proper supply of good juice to the mercantile marine, and as scurvy has in consequence diminished by from 60 to 70 per cent. But there are two unsettled and very important questions in connexion with this subject which pharmacutists should be especially able to aid in deciding: 1. What is the exact analytical standard of lime and lemon-juice? 2. Does genuine lime or lemon-juice require the addition of alcohol for its proper conservation? As to 1, we would remark that the Marine Department of the Board of Trade have delegated the official examination of lime and lemon-juice, in connexion with the working of the Mer-

chant Shipping Act of 1867, to the Laboratory Department of the Inland Revenue; and that no very delicate analysis is required to determine the genuineness of the juice. But, as the antiscorbutic value of lime and lemon-juice does not appear to depend upon a single ingredient, but upon the combination, it is eminently useful and necessary to know exactly the proportions of the constituents and the particular way in which they are combined. The late Master of the Mint separated, with great care, the colloid and crystalline principles of the juice, and submitted them for practical experiment to the officers of the Seamen's Hospital, with a view to aid in determining whether the therapeutic value of the juice existed in the former or the latter principle. Our contemporary urges that the second point should immediately engage the serious attention of chemists, inasmuch as, whenever the Merchant Shipping Code is discussed in Committee of the House of Commons, an energetic attempt will be made to do away altogether with the "fortifying" section of the Act of 1867, and to send the juice aboard ship "unadulterated" with spirit of any sort or kind. The positive therapeutical effects of lime and lemon-juice can be best determined by medical men; but pharmacutists may, it is thought, render very valuable aid in assisting to determine accurately the points above mentioned; and a rider may be added to the investigation, indicating the comparative differences between the juices of the lime and of the lemon, so as to aid the physician in determining, if possible, which of the two may be recommended as the more valuable prophylactic against scurvy.

GERMAN KILLED AND WOUNDED.

THE following is the detailed account of the losses of the German army in the last war.

1. Officers.				
	Dead.	Wounded.	Missing.	Total.
North German Confederation	918	2,972	30	3,920
Bavaria ...	156	564	—	720
Württemberg ...	25	64	—	89
Baden ...	22	132	—	154
Hesse ...	44	63	—	107
	1,165	3,725	30	4,990
2. Non-commissioned Officers and Men.				
	Dead.	Wounded.	Missing.	Total.
North German Confederation	14,839	71,792	5,902	92,533
Bavaria ...	1,524	10,217	—	11,741
Württemberg...	664	1,688	—	2,362
Baden ...	424	2,578	263	3,254
Hesse...	681	1,467	—	2,148
	18,131	87,742	6,165	112,038

SCOTLAND.

WE hear that the number of candidates at the final examination for the M.B. degree in Edinburgh is exceptionally large.

THE CASE OF CRAIG v. JEX BLAKE.

THE *Scotsman* states that the counsel for the defender have excepted and appealed on two points in Lord Mure's ruling and summing up—viz., as to his disallowing (1) the defender's plea of privilege in respect of the time and place at which the words were spoken; (2) evidence of the nature and extent of the riot of November 18th, and of the pursuer's connection therewith. The Lord Ordinary's certificate entitles the pursuer to apply for expenses, but the question of granting them will be hereafter considered and decided by the First Division of the Court of Session.

PRESENTATION OF TESTIMONIAL TO DR. THOMAS KEITH.

ON Thursday, June 1st, there met at No. 2, North Charlotte Street, Edinburgh, the residence of Dr. Thomas Keith, a committee, including Dr. Christison, Dr. Matthews Duncan, Dr. John Brown, Dr. MacLagan, Dr. Begbie, Dr. Sanders, Dr. Combe, Dr. Morehead, Dr. Strethill Wright, Mr. Annandale, and Dr. Sidey, to present to Mrs. Keith, on

behalf of seventy-nine subscribers, a portrait of her husband, by Mr. Reid, and a service of silver plate, as a token of their admiration of her husband. Dr. Christison, in making the presentation, said there were several grounds which had led to this expression of admiration—namely, Dr. Keith's great success in treating one of the most terrible diseases which may affect the life of woman, his disinterestedness, his fine character, and his devotion to duty, and their appreciation of the great sacrifices he had made in the pursuit of his object. Dr. Keith and another surgeon in the south (referring to Mr. Spencer Wells) had succeeded in establishing ovariectomy as one of the legitimate operations in surgery. Professor Christison referred to the change of opinion which his friend Mr. Syme, of whom he spoke "as the wisest and most philosophical surgeon of his time," had expressed in regard to this operation. He had said to him: "You know that hitherto I have regarded this operation like murder, but I consider now that it has been brought by Dr. Keith within the range of legitimate surgery." Dr. Keith expressed his gratification at this expression of professional opinion, and that the presentation was made by the father of the profession; remarking that because success had been achieved in a remarkable manner in ovariectomy, it was not to be supposed that too much had been made of its dangers in former days. Now was the time, however, to seek carefully for those perils which were still as much hidden as formerly.

IRELAND.

"THE EXTRAORDINARY INQUEST ON A LADY."

MR. W. LEDGER ERSON having addressed a letter to the papers, announcing that "he holds a medical diploma for midwifery, granted from the Coombe Hospital (which is incorporated by Royal Charter) on the 12th September, 1868, under the hands and seals of Drs. Jamieson, Churchill, Wilmot, Banks, Porter, Ringland, and Sawyer, and that his name appears in the return of qualified medical practitioners in midwifery published annually by the hospital," it has been resolved, at a meeting of the Irish Branch of the General Council of Medical Education and Registration, to ask each of those gentlemen to have the kindness, if not inconvenient to him, to meet the Branch Council on Tuesday, June 6th, at four o'clock, to consider what further steps, if any, should be taken in the matter, as the Branch Medical Council are desirous to adopt such measures as may seem requisite for the protection of the public and the maintenance of the position of the profession. The Registrar of the Coombe Lying-in Hospital has also been requested to have the kindness to forward to the Branch Medical Council a copy of the charter of the hospital and of the diploma issued by the hospital authorities.

STANDARD COMPOSITION OF MILK.

DR. J. EMERSON REYNOLDS lectured at the Royal Dublin Society on May 13th on the "Chemistry of Milk". According to *Nature*, it was proved by a large number of analyses of milk taken from cows fed in various ways in different parts of the country, that milk is naturally subject to very wide variations in the proportions of its constituents, and hence that it is extremely difficult, if not impossible, to state with precision that a given sample of milk has been adulterated with a certain amount of water. He suggested that milk should in future be judged according as it might reach or fall below a certain standard quality, fair alike to the vendor and the purchaser; and that milk falling below the standard should not necessarily be stigmatised as adulterated, but simply have a lower commercial value attached to it. The following is the standard proposed:—Water, 87.0; butter, 3.5; casein, 4.0; sugar, 5.0; salts, .5. It has been hitherto impossible to speedily measure the proportion of the valuable casein of milk without recourse to elaborate chemical analysis. By means of a very simple contrivance, which was exhibited at the lecture, the proportion of casein could be speedily ascertained. We may observe that, according to the Swedish experiments detailed in the *Milk Journal* of May 1st, the solids of milk do not fall below 11½ per cent., under any changes of season and in various breeds of cattle, provided that they are well fed.

SPECIAL CORRESPONDENCE.

FOUR DAYS IN THE AMBULANCES AND HOSPITALS OF PARIS UNDER THE COMMUNE.

III.

Bullet-wounds of the Shoulder.—I have already alluded to the frequency of bullet-wounds of the shoulder during the second siege, and referred to the details of a case dating from the first siege. Amongst the most interesting of those recently brought into the Ambulance Anglaise was that of a National Guard named Brunet, aged 34, who was wounded at Neuilly on April 12th. The bullet had entered from behind at the shoulder and made its exit in the upper third of the arm externally, smashing the upper part of the humerus to fragments. It was found necessary to resect the bone. Dr. Cormack, without any relation to the entry or exit of the ball—as the two wounds, from their position, could not be utilised—made a single longitudinal incision at the outer side of the joint through the deltoid in the course of its fibres, exposing well the bone. Two or three small arteries had to be tied; but there was no bleeding to prevent a good view into the wound, though from the muscularity of the man it was very deep. Having dislocated the head of the humerus, Dr. Cormack dissected out the smashed pieces of bone, and sawed off the end of the shaft. The bone removed showed the humerus, for about three inches of its upper part, to have been smashed into a dozen fragments. The patient was three-quarters of an hour under operation and chloroform. He had suffered intense pain before the operation; but, on awakening from the anæsthesia in his bed about half-an-hour after it, he felt no pain. From immediately after the operation, he has been able to move his fingers and squeeze fairly with his hand; there is perfect sensation. He eats, drinks, and sleeps well. The wound is healthy and closing, with abundant discharge of laudable pus. There is a large abscess at the anterior aspect of the chest, below the point of entrance of the ball.

A. S., aged 36, belonging to the National Guard, was admitted with an extensive wound in the shoulder, received at Issy on May 9th. The case was of some interest from the fact that the shoulder-joint and the vessels at the base of the neck had both very narrowly escaped injury. The ball entered at the external and anterior aspect of the shoulder and passed out at the sternal end of the clavicle. The skin and muscle along the shoulder and clavicle were torn up, and the periosteum covering the clavicle appeared to have been partially stripped off. The shoulder-joint, however, marvellously escaped injury.

Another example of shoulder-injury was that of J. L., aged 28, who was wounded on May 9th at Issy. Before the Franco-Prussian war he was a marine, but had afterwards been transformed into a franc-tireur for the time. When he fell into the hands of the Commune he found himself in artillery uniform of the National Guard. This rapid change from one branch of the service to another was not by any means an uncommon feature of the late troubles in France. While he was defending a gun alone at Issy, a bullet struck him on the anterior part of the shoulder, nicking off the tip of the coracoid process and passing out posteriorly. The wound was, he said, the work of a woman firing from the houses on the side of the Versailles troops—an unusual occurrence; but it was not, he submitted, *une affaire d'amour*. This man was a drunkard, but the symptoms of alcoholism, at one time very urgent, had been wonderfully subdued by doses of bromide of potassium. He suffered to a remarkable degree from local cramps of the abdominal muscles, which were relieved by sudden temporary cold applications.

C. P., aged 19, a National Guard, was admitted on May 9th with a bullet-wound of the shoulder received at Issy. The bullet struck him while he was rising from the ground; it entered at the supraspinous fossa and made its exit close to the angle of the scapula, without producing any injury to the bone. The wound was healing rapidly.

A. C., a volunteer in the National Guard, and not more than seventeen years of age, presented a very ragged and purely flesh-and-skin wound along the supraspinous fossa. The character of the wound was consequent on the fact that the bullet had already lost much of its velocity when it struck his shoulder. He was doing well.

Bullet-Wound of the Axilla.—The absence of hæmorrhage observed in some wounds, owing to the tearing of the vessels, is very remarkable. In a patient at the Beaujon Hospital I saw a case in which a Chassepôt-bullet had entered the axilla, severed the axillary artery, and injured some of the branches of the brachial plexus. It passed out behind the scapula. No hæmorrhage occurred; and the collateral circulation had now become established. There was paralysis of the arm.

Bullet-Wound of the Elbow-Joint.—The advantages of primary resec-

tion of the elbow-joint in gunshot wounds were well illustrated in the case of A. G., aged 35, a National Guard, who was wounded on April 12th. The ball entered at the elbow, smashing the bones into numerous fragments, and then passed out at the middle third of the fore-arm in front. The man (a drunkard) was quite intoxicated when admitted. It was determined by Dr. Cormack to resect the joint; but the friends would on no account hear of it. Diffuse cellulitis supervened, and the skin became brawny and erysipelatous. The only chance, and that a doubtful one, of saving the man's life, was now by amputation.

Bullet-Wounds of the Chest.—In the Ambulance de M. Richard Wallace were two illustrative cases of bullet-wounds of the thorax. In one of them the bullet had struck the upper part of the chest and passed through the apex of the right lung; in the other the bullet had impinged against the rib in the left axilla and passed out at the axilla on the right side, affording a good example of the manner in which bullets sometimes travel round the thorax.

Bullet-Wound of the Thigh.—J. V., a patient of Dr. Cormack, aged 35, an Englishman, had served his time as a soldier in the British army. During the Franco-Prussian war he had joined Chanzy's army as a volunteer, and returned to Paris on the declaration of peace. After the civil war broke out he went to Porte des Ternes to watch the fighting, and there received a bullet (which had ricoched) through the inner part of the thigh, passing out close to the femoral artery, but without injuring that vessel. The wound was now rapidly closing.

Bullet-Wound of the Knee.—Amongst the wounds of the knee, was that of a drunken opium-eater, S. B., aged 46, a sergeant-major of the Commune, who was accidentally shot by his revolver falling on the ground out of his belt. The bullet entered at the external aspect of the joint and appeared to have wended its way to a point two inches above the inner aspect of the joint. A probe could be passed to this extent, but no further. The bullet could not be found, and had either dropped out at the wound of entrance (which, from its circuitous course, is unlikely) or had buried itself in the muscles of the thigh. The good effects of bromide of potassium in causing sleep and dispersing the symptoms of threatening delirium tremens were very marked in this case.

Bullet-Wound of the Tibia without Fracture.—In the Beaujon Hospital I saw a case which presented considerable interest. The effect of the Chassepôt and of all the German bullets when striking the long bones has been generally found to be extensive fracture and splintering; but in the case of a National Guard in this hospital the bullet had passed through the tibia without producing any appearance of fracture.

Shell-Wounds.—Amongst others there were a few cases of slight injury, with severe abrasion of the skin, which however was accompanied, as is usually the case, with considerable contusion. F. B., aged 23, a National Guard, was sent from the village of Neuilly on May 12th with such an injury to the right arm. The skin was abraded to a slight extent only, but the arm was much swollen and contused. In two or three days the arm was well. On the 16th, C. G., a boy fourteen years old, engaged in carrying ammunition and repairing batteries for a few *sous* a day, was also sent to the ambulance with a contusion over the left lumbar region, caused by a piece of shell. The injury produced little more than temporary discomfort.

Shell-Wound of the Abdomen.—The most severe abdominal shell-wound received into the Ambulance Anglaise since the beginning of the civil war was that of an *ambulancière*, who, while attending to the wounded at Issy, was struck by a piece of shell which lodged in her abdomen. Acute peritonitis set in immediately, and she died in thirty-six hours after suffering most acute agony. The remains were honoured by a military funeral; and at each corner of the hearse was the *chiffon rouge* of the Commune. An interesting incident occurred in connection with the ceremony. Her friends wished a funeral service to be read over the body. To this the captain of the guard, like a consistent Communist, demurred at first, but he ultimately granted a delay of a few minutes. A Roman Catholic clergyman was not to be found; but a well known and much respected French Protestant minister attended, and availed himself of the opportunity to point out to the National Guards present—and that most plainly and eloquently—that the civil war which they were now waging was a sorry application of that *fraternité* of which they were so fond of shouting. The address, coming as it did from the lips of one gifted with so much eloquence, produced a deep impression on the soldiers present.

Shell-Contusion of the Abdomen, with Melæna.—A peculiar case, of what appeared at first sight to be simple contusion, occurred in the husband of Madame Champion, wounded by the bursting of a shell in their house in the Avenue de la Grande Armée. The fragment of shell struck him over the hepatic region. Vomiting and great prostration set in, which raised the suspicion of serious mischief. An unfavourable prognosis was to some extent confirmed by the appearance of de-colourised blood in his stools for three days. The symptoms, however,

speedily passed off, and he was now perfectly well. What the real injury was it is difficult to say; but the symptoms were such as might fairly be attributed to slight laceration of the liver or intestine. The treatment Dr. Cormack adopted in this case was the constant application of poultices of linseed-meal and olive-oil, of size sufficient to encircle the entire abdomen. A large opiate was also administered for the first five nights. No other medicines except opium and castor-oil were taken by this patient.

Severe Lacerated Wound of the Hip.—While I was visiting for the first time Dr. Cormack's patients in the Ambulance Anglaise, A. B., aged 34, an artilleryman, was brought in from the battery outside the Porte Maillot with a severe shell-wound of the hip, received half-an-hour before. He was one of the best pointsmen at the battery—of whom there was a dearth amongst the Communists—and received his five francs a day, the pay of the skilled artilleryman. He was a thorough-looking blackguard, to all appearance born and bred in Belleville. He presented the symptoms ordinarily observed in the recently and severely wounded—collapse, with coldness of the surface and shivering, notwithstanding the sultriness of the day. Before being put into the ambulance-waggon, he had been dressed at the ambulance station at the Porte Maillot, the fragment of shell extracted, and a pad and bandage applied. On arrival, it was found that he had received an extensive lacerated wound on the left coccygeal region, which formed a cavity extending some distance under the skin, and full of pent-up blood, which poured out on the removal of bandages. The surrounding tissues were greatly contused. He was treated in the manner usually adopted by Dr. Cormack; warm meat-broth and stimulants being given internally and hot bottles applied externally before the wound was touched. This was throughout the first siege the method carried out by Dr. Cormack, giving also an opiate at night. In the present case reaction speedily set in, and the patient was soon enabled to undergo, without much distress, a thorough examination of the wound. From the sacular character of the wound, and the bruised condition of the surrounding tissues, it was considered advisable, to prevent a bag of pus from forming, to lay open the entire wound. This was accordingly done, and the wound two days afterwards afforded every evidence of healing rapidly.

Paralysis of the Leg from a Shell-Wound.—A case somewhat similar to that previously related, in which the arm was paralysed, was admitted into the Beaujon Hospital. It was that of a National Guard who was struck in the back part of the thigh by a considerable fragment of shell which passed from the outer side completely through the muscles about the middle third, leaving a gaping wound throughout. The artery had apparently escaped injury; but the extremity had to a great extent lost motion and sensation.

Lacerated Wound of the Thigh.—Mme. Champion's sister, aged about 25, who was wounded by the same shell as her sister and sister's husband, received a severe lacerated wound of the thigh. She also received a lacerated wound of the hand, with fracture of the metacarpal bones of the hand, which were uniting well. This young woman was received into the Ambulance Anglaise with M. and Madame Champion on the 8th of April.

Amputation of the Leg by a Shell.—A native of Luxembourg, and a volunteer in the National Guard, was found, on May 14th, by Mr. Baillie Cormack at Neuilly with his left leg shattered by a shell about the middle third, and dangling by a slight piece of skin. He removed the limb, bandaged the stump firmly up, and brought the man to the ambulance. The limb was so torn that wonderfully little hæmorrhage had taken place—enough, however, to produce a blanched appearance of the lips. On the following day the man was put under the influence of chloroform. Dr. Cormack then removed the smashed portions of bone adhering to the stump, and about two inches of the uninjured shafts of the tibia and fibula. He then trimmed the skin and muscles of the calf of the leg, which were still sufficient to afford an admirable flap. The operation was a delicate and tedious one, and was rendered more so as we were short of hands; the femoral artery having to be compressed and chloroform to be given by the same person—a difficult task, as the patient at times struggled very much, and was sick and fainted on several occasions. There was a good deal of venous hæmorrhage from the bruised muscles forming the stump, which ceased in an hour or two. The chloroform sickness continued for several hours, and left him in a state of profound collapse, from which, however, he rallied during the afternoon.

Shell-Wound of Leg: Amputation.—Mme. Champion, aged about 30, received a severe injury to the leg, necessitating amputation, from a shell which exploded in her *boulangerie* on the 8th April, in the Avenue de la Grande Armée. She was otherwise severely injured, and covered with bruises and lacerations, numbering sixteen in all. The husband and sister were also seriously hurt. The limb, which

was utterly smashed, was removed below the knee-joint, and she had since been progressing favourably. She was, however, five weeks after the operation, inordinately feverish, and there was great pain with some effusion, apparently synovial, into the knee-joint. The wound was healing satisfactorily, however; and there had been no rigors or other symptoms pointing to pyæmia.

Compound Fracture of the Tibia and Fibula, caused by a Shell.—This occurred in an apple-woman, who was struck, two or three days before, close to the Cirque Impératrice, by an unexploded shell, which came tumbling along the Champs Elysées with its force almost expended. The skin was lacerated immediately over the tibia at the seat of fracture, but to a slight extent. A small piece of dead bone was now becoming detached: the woman was doing well.

Shell-wound of the Tarsus.—An interesting case of wound of the foot was brought into the ambulance on May 12th, from the Batterie Avancée at the Porte Maillot. The patient, P. Brost, aged 39, was a captain in the Artillerie de la Garde Nationale, and had in his button-hole the decoration of Victoria, obtained for services with the French army in the Crimea. He at that time had received a shell-wound of the tarsus of the right foot, and was now the subject of a similar wound of the left foot, almost precisely in the same situation. The injury was caused by an *ailette*, the leaden button fixed on the shell to run in the groove of the gun. When the shell explodes, this very frequently becomes detached from the fragments of the shell, and produces very severe wounds, from its flatness and the raggedness of its edges, consequent on the friction in the groove. In the present instance, the *ailette*, which was sharp and ragged at its edges, had passed about halfway through the tarsal bones; the ankle-joint was laid open; and the end of the fibula was felt in the wound. The pain was for some time considerable, but in a couple of days this had almost completely subsided. The wound continued to look healthy; and there was a fair chance that, with the sound constitution of the man, the wound would speedily heal up with a stiff joint.

Lacerated Wound of the Eye.—E. M., a volunteer in the National Guard, and only seventeen years of age, presented a wound of the conjunctiva, which was slightly lacerated. The injury had been caused by an *obus* striking a sandbag off a barricade at Neuilly, and driving pieces of stone into his eye. Several small bits of stone were removed from the wound, which was now rapidly healing under the influence of zinc lotion.

Sprain of Ankle.—They were not all wounded in battle that came to the ambulance; for on the 15th a National Guard was brought in with a severe sprain of the ankle, consequent, he said, on his horse having fallen on him, or (and this excuses me in alluding to the case), what is much more likely to have happened, if one may judge from the horsemanship of the Communists, his having fallen from his horse.

Such are short details of a few of the cases which came under my observation. They give some idea of the sort of wounds which military surgery has to treat. That any special knowledge or experience is necessary to make a military surgeon, my small experience at Sedan and Paris leads me to doubt. All that is requisite is an intelligent consideration of general principles and of the conditions in which soldiers are placed in war.

Before closing, I should like to give a passing notice of a Society whose operations I had the privilege of watching, and which, I believe, has been the means of saving the lives of a large number of our countrymen and countrywomen during the first and second sieges of Paris. I allude to the British Charitable Fund of Paris, special reports of which in the two sieges (the latter, of course, incomplete) I have just received. This fund, kept up by the charitable British residents of Paris, and assisted specially during the war by the Home Government, was dispensed during the first siege by a committee composed of Dr. Shrimpton, the Hon. Mr. Herbert, Mr. Wallace, the Rev. Dr. Smyth, and Dr. Rose Cormack, ably assisted by Mr. Gesling as clerk. In conjunction with it, Dr. Smyth dispensed a separate Fund—the Cave-Smyth Fund. Miss Ellen and Miss Annette Sparks have nobly co-operated with Dr. Smyth in his daily labours. Through the instrumentality of this Fund, British subjects, exclusive of children under four years of age, were sent to England before or immediately after the commencement of the first siege of Paris, and up to the 30th of April two hundred and seventy more. During both sieges, the committee have laboured to keep the poor British population left in Paris from starvation, by systematic house-visiting and by distribution of food; and have ministered generally to their comfort, so far as the means of the fund would admit. It would be invidious on my part to say that the fund has been ably and conscientiously administered; but a personal investigation of the work of the committee leads me to venture the remark that the people in this country are by no means fully aware of the extent and real value of their labours. A

one period the committee were feeding more than 1600 destitute British subjects—many destitute only for the time being.

I returned to London on May 17th, charged with the delivery of dispatches to Her Majesty's Government.

Such is an abstract of my notes of a few days in Paris during an extraordinary and exciting period of the history of France. It was not my intention to put my experiences on record; but, having been requested by several friends to do so, I hope they have not been without some little interest to the members of our Association.

London, May 17th, 1871.

JOHN MURRAY, M.D.

On the 31st May, Dr. Cormack sent me a short letter in which Brunet's case is referred to, and which I subjoin to complete the history of this case, and to supply, to some extent at least, the imperfections of my hurried sketch of what I saw under the Commune. He says:

"I am quite unable to afford time to answer in detail your queries at present. As to Brunet, he has gone on to a wish since you were here. To-day he has walked round the garden without help; and for the last five days he has been some hours daily out of bed. The introduction of drainage-tubes has nearly enabled me to get rid of the abscesses in the front of the chest which you examined along with me. This case may now be considered as very nearly certain to be a complete success. Madame Champion, too, is going on well. The threatening tumefaction of the knee became painless after you left, and has subsided under blistering and the use of a pomade of mercury and belladonna—syrup of the iodide of iron and cod-liver oil being taken internally. The affection was rheumatic, as was proved by the right elbow becoming similarly affected after you left. The stump is now quite healed, and the pulse has fallen from 100 to 80. She eats, drinks, and sleeps as well as it is possible to do. This is a very remarkable recovery, for never was a leg amputated seemingly under more unfavourable conditions. The Luxembourg volunteer died on the sixth day after the amputation. For twenty-four hours before death the traumatic delirium was of a very violent character. "Captain" Brost has been very ill since you were here. The other day I opened a large abscess in the foot, and removed the shattered articulating surface of the tibia. He will recover without an amputation.

"On the 21st, 22nd, and 23rd, our garden, court, corridors, and floor, were crowded with wounded brought in fresh from the fight. On Monday and Tuesday the battle of the Faubourg Saint-Honoré raged all round us. We took in only the worst cases; the others were dressed and sent to private houses. On Tuesday, 22nd, we had sixty-three wounded in our ambulance, but the number is now reduced to fifty-four. All our convalescents have been sent away. Most of the wounds are by musket-bullets. Six of my patients are officers of the line; one of them has a terribly fractured thigh, from which large pieces of bone have been removed; another has a fractured ulna—fractured by a Chassepôt ball. A curious and impressive circumstance occurred in connection with this patient. I had just extracted the ball from his arm when he was struck with an *éclat d'obus* on the chest. It came in at the open window (without much force), and I picked it up from the floor quite hot. I keep this *éclat* and two musket-balls which came into the same room on Tuesday as *souvenirs* of that terrible day. The room to which I refer is that in which you lunched with me; it is now a ward with four wounded officers. The officer with the fracture of the femur lies in the room in which we operated; and Colonel Thiéry occupies the accountant's office as his bedroom: he is severely, but not dangerously, wounded in the thigh. It is impossible to conceive a more interesting and terrible series of cases than those I received on Monday, Tuesday, and Wednesday—chiefly on Tuesday. Four of those received on Tuesday are already dead; two of these were penetrating wounds of the chest, and two penetrating wounds of the abdomen. Our *étoupe goudronnée* is nearly done, and there is a difficulty in getting more at present. With such a vast suppuration going on, this is much to be regretted."

PARIS AFTER THE SIEGE.

THE following notes, made within a week after the siege, have been placed at our disposal by Dr. A.W. Edis. They describe the then existing sanitary state of the streets of Paris, and the result of his visits to the ambulances, of which we have not seen any account elsewhere. This report will do much to dispel the fears of pestilential odours and disease.

¶ The barricades and the *débris* of houses ruined by fire and shell had been rapidly removed, and any bodies found under them carted off. At the Tour St. Jacques, where numbers killed at the adjoining barricades were hastily buried, most of the bodies had been exhumed at night

and sent off to the cemeteries. The remainder were being covered with a greater depth of soil, and the ground levelled and restored to its former state. In the Jardin du Luxembourg, Champs de Mars, and Parc Monceaux, where numerous executions took place, the ground bore evident tokens of the service to which it had been put, but, beyond this, there was nothing to suggest what lay beneath. At Père-la-Chaise, several thousand bodies of those who died during the Prussian siege, from their wounds or privation, were buried in huge trenches; but the saddest sight of all was in the south-eastern corner, near the boundary wall, where hundreds of those shot in cold blood had been placed in heaps and covered over with earth. Chloride of lime, and also tar, had been freely used as disinfectants. At only one spot, near the Pont de la Concorde, where some forty-eight had been buried, was there any sign of interment.

In the Champs Elysées, behind the Palais de l'Industrie, a large ambulance, under the care of Dr. Chenu, was in full activity. Large wooden sheds, capable of holding twenty beds each, had been erected, disconnected and apart from each other. There were two hundred and sixty-five wounded in them at the time of our visit, most of them soldiers of the line, wounded during the recent struggle.

In the Palais de l'Industrie, in what were formerly the stalls for the horses—the names of which, as "Kiss me", "Nancy", "Belle à peur", etc., still remain—about two hundred and fifty Communists lay wounded. On the first entry of the troops into Paris, numbers had been taken out and shot at once, and probably many of those remaining will share the same fate.

In Dr. Cormack's ambulance there were about fifty wounded—many of them injured during the attack on the Mairie behind. One man, who had ensconced himself at a window commanding a barricade, boasted of having "descended" thirteen. He was at last injured by the bursting of a shell, and obliged to desist from his exciting employment.

One of the most repulsive sights which we witnessed was that of the lying in state of the late Archbishop of Paris, Mgr. Darboy, shot at the prison of La Roquette. One bullet entered the right cheek just under the eye, passing upwards into the brain and fracturing the skull; another perforated the chest, passing out at the right shoulder, causing a considerable amount of extravasation. He had already been dead nine days, and it was proposed to expose him for another week.

MEDICAL TEACHING IN BERLIN.

[FROM A SPECIAL CORRESPONDENT.]

AFTER a month of hard work, the Berlin medical school is now enjoying a week's play. The Whitsuntide holidays, which began on May 29th, are somewhat inconvenient to foreigners staying here, who hardly know how to occupy so much enforced leisure, but they are evidently highly appreciated by their German brethren; and, indeed, these work so well, and do everything with so much real earnestness, that they deserve an occasional week. Their attentive and intelligent demeanour shows that a full sense of the responsibility of medical study exists among them. But in spite of all this, it seems difficult to understand how they can ever become practical physicians.

Ward-work here is almost unknown, and its place is very insufficiently supplied by crowds of lectures on every possible subject. Dr. Payne has excellently described the deficiencies in this respect; and, although Dr. Swanzy would wish us to believe that any young practitioner coming here specially appreciates formally academic work, I have not yet met with any confirmation of his views. Such an one, on the contrary, is usually smarting under an excess of lecturing, and longs for the happy hunting grounds where he can see clinical practice on a large scale, and work up those special branches on which home teaching has proved deficient; and to him some amount of disappointment is almost inevitable on first coming to Berlin.

Professor Frerichs lectures five times a week, from 11 to 12, and gives an admirable *résumé* of the cases of one or two patients brought before him, but who are necessarily very indistinctly seen by the eighty or ninety students occupying the room. He makes no clinical visit of any kind; and, although the members of the practising class, as Dr. Swanzy tells us, are called down one by one, their presence is merely nominal, as they do little more than stand by whilst the professor conducts his examination of the case. True, they are expected to follow the further progress of the patient; but this, after all, is a poor substitute for real bedside teaching; and it jars seriously upon our feelings of humanity to see poor creatures in a sick or even dying state exposed publicly in the lecture-theatre and treated with not much more ceremony than they will receive a few days later in the dead-house.

I should strongly advise any one coming here to attend an excellent class by Dr. Quincke, *chef de clinique* to Frerichs, as a good opportunity is thus afforded him of seeing something of the cases in the wards.

Professor Traube lectures four times a week, from 9 to 11, and forms an exception to the general rule by devoting the other two days to a most careful clinical visit. Every student has the chance of seeing and hearing for himself, and no occasion is lost for displaying admirable microscopic demonstrations of sputa and urine. Out of the 150 beds which compose his service many interesting cases present themselves; and he has devoted, among other things, special consideration to pneumonia, phthisis, erysipelas, typhus, aphasia, delirium tremens, diabetes, and that connection between kidney- and heart-disease on which he has very ably written.

Cerebro-spinal meningitis has lately been epidemic here; the type differing, however, from that met with in Dublin some years ago, in never being associated with petechial eruptions.

Several cases of intermittent fever have occurred; and typhoid is as common as we might suppose from the wretched state of drainage in Berlin. Cologne has long enjoyed an evil supremacy for the manufacture of noxious smells; but a walk through the Berlin streets after night-fall must convince us that a powerful rival is not far distant. How so intellectual a people as the Germans can endure this state of things, is past all comprehension.

In spite of Traube's more special care of their wants, the students flock in much larger numbers to Frerichs' teaching. The only other general medical *clinique* is that of Dr. Meyer, who has no beds, but holds forth on the selected cases from a dispensary in the Ziegel Strasse; and this being the sum total, we are forced to decide that this branch of medical study has not met with its due development here. But every school has its speciality, and pathology certainly reigns supreme in Berlin.

Nothing more complete and admirable can be imagined than the arrangements of Professor Virchow in his pathological institute. This is a separate building, placed in the Charité Garden, and conducted by himself and three assistants, one of whom, Dr. Oscar Liebreich, of chloral celebrity, presides over the chemical laboratory. Every morning from 7 to 9 the professor lectures in two alternate classes, one consisting of pathological demonstrations, and in which large numbers of recent specimens are passed round and commented upon in the most lucid manner. The other is purely microscopic, each student making his own preparations, which are finally inspected and criticised by Virchow himself. Notwithstanding the early hour, these classes are very fully attended, and their members are further permitted to pursue their studies privately, with full command of the vast supplies of material which the hospital affords; and when to this I add that the professor lectures from 11 to 12 on some special branch of general pathology, and that Dr. Wagener, one of his assistants, gives a course of normal histology, I have said enough to show how excellent are the opportunities for studying this all-important branch.

Some little time ago, by the kindness of Dr. Frank Buller, medical officer in charge, I was enabled to inspect the last remaining Baraken Lazareth, situated in the Tempelhofer Felde, about three or four miles from Berlin. These institutions were common here at the close of the war, and consisted of miniature camps, composed of wooden huts, and occupied by the wounded from the various battle-fields. Most of them, having served their time, have been pulled down, but this one still remains, with a few of the more lingering and chronic cases. It presents somewhat of the appearances of a cheerful Aldershot; the huts wanting the funereal aspect, and the surrounding plain and the sandy grittiness of that well known military resort. Each wooden erection contained about twenty-six men, was well lighted and aired, and the men were lively and in good condition, smoking their cigars and playing at various games with considerable gusto. But this little village will also soon disappear, and the wounded warriors with their comfortable and sufficient pensions will be scattered over the length and breadth of Fatherland.

In strange contrast to this was a visit which I recently paid to Spandau, a picturesque rambling town of about 20,000 inhabitants, and containing a large fortress in which 6000 French prisoners are still imprisoned. These poor fellows seemed to bear their troubles with all the national lightness of heart; and, in the course of conversation, told us that they expected to return home in the course of next week. They had not heard of the recent disastrous events in France, and their distress was great on learning the terrible destruction which has fallen on their beloved Paris. Many of their number have died here; and this is not surprising, when we consider their monotonous life and crowded condition of the buildings in which they are confined.

ASSOCIATION INTELLIGENCE.

NORTHERN BRANCH.

THE annual meeting of the above Branch will be held in the Assembly Room, Bath Terrace, Tynemouth, on Thursday, June 15th, at 1.30 P.M.; J. B. BRAMWELL, M.D., President, in the Chair.

Dinner at the Bath Hotel at 4 P.M.

Gentlemen intending to read papers or describe pathological specimens, are requested to communicate with the Secretary without delay.

G. H. PHILIPSON, M.D., *Honorary Secretary*.

Newcastle-upon-Tyne, May 27th, 1871.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE annual general meeting of the above Branch will be held at the Great Western Hotel, Birmingham, on Friday, June 16th, at 3 P.M.; when an address will be delivered by the President, Mr. OLIVER PEMBERTON.

Members have the privilege of introducing their friends, being qualified members of the medical profession.

The members and their friends will dine together afterwards, at five o'clock punctually.

Gentlemen intending to be present at the dinner, will be good enough to communicate as early as possible with the Honorary Secretary.

Dinner tickets, inclusive of waiters and dessert, 7s. 6d.

Members whose subscriptions are not yet paid, are earnestly requested to pay them at or before the annual meeting.

T. H. BARTLEET, *Honorary Secretary*.

8, Old Square, Birmingham, May 1871.

LANCASHIRE AND CHESHIRE BRANCH.

THE annual meeting of the above Branch will be held at the Medical Institution, Liverpool, on Wednesday, June 28th, at 12 o'clock. *President*, Dr. SPENCER, Preston; *President-elect*, Dr. DESMOND, Liverpool.

The dinner will take place at 4.30 P.M.

Members intending to read papers, are requested to communicate with the Honorary Secretary without delay.

REGINALD HARRISON, *Honorary Secretary*.

51, Rodney Street, Liverpool, May 24th, 1871.

SOUTH MIDLAND BRANCH.

THE annual general meeting of the above Branch will be held at the General Infirmary, Northampton, on Tuesday, June 27th, at 1 P.M.: Dr. WM. CLARK, President, in the Chair.

Gentlemen intending to read papers (not to exceed fifteen minutes in reading), are requested to send the titles forthwith to Dr. Bryan, Honorary Secretary.

Dinner will be provided at the Angel Hotel, at 4 P.M.; charge, 6s., including dessert and waiters; and gentlemen who intend to be present, are requested to let me know on or before June 23rd.

Members whose subscriptions are not yet paid, are earnestly requested to pay them at or before the annual meeting.

J. M. BRYAN, M.D., *Honorary Secretary*.

Northampton, May, 1871.

SOUTH EASTERN BRANCH.

THE twenty-seventh annual meeting of the above Branch will be held at the Steine Hotel, Worthing, on Friday, June 30th, at 2 o'clock; Dr. TYACKE, Senior Physician to the Chichester Infirmary, in the Chair.

Dinner will be provided at 4.30; charge, exclusive of wine, 7s.

Members can introduce friends. Those who may intend to join the dinner, will oblige by informing me by the 28th instant.

G. FREDK. HODGSON, *Honorary Secretary*.

52, Montpellier Road, Brighton, June 1870.

NORTH WALES BRANCH.

THE twenty-second annual meeting of the above Branch will be held at the Castle Hotel, Ruthin, on Tuesday, July 4th, at 12 o'clock; J. R. JENKINS, M.D., President.

The dinner will take place about 4 P.M., at the usual charge.

Gentlemen having papers or cases to communicate, and who intend dining, will much oblige by sending *early* intimation to the Secretary.

D. KENT JONES, *Honorary Secretary*.

Baumaris, June 3rd, 1871.

EAST ANGLIAN AND CAMBRIDGE AND HUNTINGDON BRANCHES.

THE annual meeting of the above Branches will be held at the Norfolk and Norwich Hospital, Norwich, on Friday, June 30th, at 2.30 P.M.; P. EADE, M.D., President.

Gentlemen wishing to read papers, are requested to send the titles to one of the Honorary Secretaries; and those members who intend to be present at the dinner will be good enough to communicate the same as early as possible.

Dinner tickets, 12s. 6d. each.

J. B. PITT, M.D., Norwich.
B. CHEVALLIER, M.D., Ipswich.
J. B. BRADBURY, M.D., Cambridge. } *Honorary Secretaries.*

WEST SOMERSET BRANCH.

THE annual meeting of the above Branch will be held at Bridgewater, on Tuesday, July 4th; J. CORNWALL, Esq., Ashcott, retiring President; W. H. AXFORD, M.B., Bridgewater, President-elect.

W. M. KELLY, M.D., *Honorary Secretary.*

Taunton, June 7th, 1871.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE first annual meeting of the above Branch will be held on July 5th, at the Swansea Hospital, at 1.30 P.M.: *President*, GEORGE PADLEY, L.R.C.P.Lond.

Dinner will be provided at the Mackworth Hotel at 5 P.M. Tickets, 6s. 6d. each.

Members desirous of reading papers or notes of cases, are requested to communicate the titles at as early a date as possible to one of the undersigned.

A modification of Rule No. 2 of the Branch will be proposed at the meeting.

The Council will meet at 12.30 P.M.

Members of the Branch may introduce members of the profession to the annual meeting and dinner.

All members intending to join the latter, will oblige by sending to one of the Honorary Secretaries a communication to that effect on or before the 30th inst., so that arrangements may be made and tickets reserved.

A. DAVIES.
A. SHEEN, M.D. } *Honorary Secretaries.*

June 1st, 1871.

THE HASTINGS PRIZE MEDAL FOR 1870.

SIR,—I shall be glad if you will give me space in this week's JOURNAL to announce that the Hastings Prize for 1870 has been awarded to Dr. J. Milner Fothergill, Senior Resident Medical Officer of the Leeds Public Dispensary, for an essay "On Digitalis—its mode of action, and its use."

I send you a copy of the award.

The unsuccessful competitors can have their essays returned on application to me. I am, etc., T. WATKIN WILLIAMS,

General Secretary.

13, Newhall Street, Birmingham, June 7th, 1871.

The following is the copy of the award.

"We, the undersigned, having read the essays received in competition for the Hastings Medal of 1870, award the prize to the author of the essay bearing the motto—'Digitalis Purpurea.'"

(Signed) "EDWARD CHARLTON, M.D.
"A. P. STEWART, M.D.
"A. WATERS, M.D."

BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of the session was held at the York House, Bath, on Thursday evening, May 25th, when CHARLES BLEECK, Esq., President, took the Chair. There were also present twenty-seven members and three visitors.

New Members.—Dr. Parsons of Clifton, and Dr. Coleman of Stokes Croft, were elected members of the Branch and of the Association.

Election of Representative Member on Parliamentary Committee.—On the proposal of Mr. J. S. Bartrum, seconded by Mr. R. N. Stone, Dr. J. G. Davey was unanimously elected to represent this Branch on the Parliamentary Committee of the Association.

Papers.—The following papers were read. I. Case of Aneurism.

By C. Leonard, Esq.—2. Two Surgical Cases of Interest. By R. W. Tibbits, M.B.—3. Case of Labour with Occluded Vagina, and a Case of Labour with Growth from Superior Wall of Vagina. By C. H. Dowson, Esq.—4. Case of Rupture of Heart. By T. G. Stockwell, Esq.

GLOUCESTERSHIRE BRANCH: ORDINARY MEETING.

A MEETING of this Branch was held at the Cheltenham General Hospital on May 16th. Present: E. CRIPPS, Esq., in the Chair, and fifteen members.

The PRESIDENT delivered an address, of which the following is an abstract. After thanking the members for the honour which they had conferred on him by electing him their President, he doubted whether they would care to hear a conventional address consisting of a *rechauffé* of the most important medical and chirurgical novelties that had cropped up during the past year. He lamented that much that was new was not true, and much that was true was not new; inasmuch as the race after novelty led to a hurried diagnosis and empiric treatment. Referring to the two prevailing epidemics—scarlet fever and variola—as largely increasing the death-rate of the country, through the ignorance and neglect of well known sanitary laws, he instanced the case of Marlborough College, in which there were three residential buildings, respectively giving 480, 473, and 570 cubic feet of air per pupil. The number of cases of fever bore an exact relation to deficiency of space; viz., 20, 22, and 8 per cent. Looking at the present epidemic of small-pox, he feared it was in no small degree due to the senseless and wicked crusade against vaccination. The President's grandfather (father of the late Sir William Lawrence) was a predecessor in his (the President's) own practice; he was a friend of Jenner, and took a deep interest in his discoveries. The President had in his possession a register of every individual who had been vaccinated or revaccinated in his practice since the year 1800 to the present time. The register was ruled in six columns. 1. Date; 2. Name and age; 3. Appearances on eighth day; 4. On tenth day; 5. Secure or not; 6. Remarks. Taking it to be generally admitted, as a rule, that a perfect primary vaccination protected for life, Mr. Cripps considered it prudent to test for exceptions to the rule at about the age of puberty. He looked on secondary vaccination, firstly as a test, secondly as a safeguard. He had tried at various times different methods of vaccination, but for the last twenty years had used Weir's vaccinator and lymph preserved on flat glasses. With Weir's vaccinator the cuticle was abraded to the exact extent desired; and with the glasses he had preserved the lymph for twelve months, and sent it to Australia (before the days of steam), where it arrived in good condition. In vaccination his failures amounted to about one in two hundred. The President spoke strongly against obtaining lymph from a revaccinated subject. Adverting to medical reform, he regretted that he was unable to feel much interest in the matter. Quackery, he considered inherent in human nature; and he did not think that it was more rampant in Medicine than in Law, Divinity, or Statecraft. And if charlatanry was all pervading, how could Medicine hope to escape? Referring to the work done by the Branch during the past year, he congratulated its members on its flourishing condition.—A discussion on the subjects treated on in the President's address followed; Dr. Rumsey, Dr. Lingen, Dr. Batten, and others taking part.

Dr. WILSON read a paper on Counterirritation, of which the following is an abstract. The author drew particular attention to a paper by Dr. Dickinson, published in an early volume of the *St. George's Hospital Reports*. Dr. Dickinson had there expressed his conviction that irritants applied to the skin of the head in disturbance of the brain, to the back in affections of the spinal cord, and to the chest in diseases of the lung, were useless, from the fact that no direct vascular connection could in either case be shown to exist. Dr. Wilson, after examining in detail the various modes by which the influence of an irritant could be conveyed in such cases, and dwelling on the unsatisfactory explanation afforded by such terms as "derivation," "diverted attention," "sympathy," and the like, went on to show that the results might be reasonably explained by the light of modern discovery. Alluding to the experiments of Claude Bernard and Brown-Séquard, in proof that real reflex action takes place in the fibres and ganglia of the sympathetic, as well as in these of the sensori-motor system, he proceeded to show by numerous examples that in health and disease this action of the sympathetic may give rise to phenomena inexplicable on any other hypothesis. He considered that it went far to explain the various sympathetic pains and diseases, such as brow-ache from ice in the stomach, an intermittent pulse from gastric dyspepsia, ulceration of the duodenum from a superficial burn, the instantaneous relief afforded by heat or cold to the scalp in the various kinds of headaches—as well as the beneficial influence of external heat in croup and other throat-affections. Arguing from these

and kindred phenomena, he concluded that irritants applied to the skin might in like manner, through the sympathetic, act upon and control the vascular supplies of the visceral organs beneath. He thought that, with increased knowledge of the laws which regulate this action and the selective preferences which are at present so inexplicable, the application of heat and cold, of blisters and irritants generally, would become more scientific and more precise; and that the present plan of irritating the surface in nearest proximity to the seat of pain would in all probability give way before a system of counterirritation founded on accurate experiment and invariable sequence of effects.—After Dr. Wilson's paper, another discussion followed.

Dinner.—The members afterwards dined together at the Plough Hotel.

The next Meeting of the Branch will be held about the middle of November.

CORRESPONDENCE.

MUSCULAR HYPERTROPHY.

SIR,—Your correspondent, "The Reviewer", quotes from Dr. Chambers a passage in which it is maintained that, if active work of a voluntary muscle causes hypertrophy, the most notable example of such hypertrophy should be a one-legged or lame man; for, "seeing he uses one leg instead of two, it ought surely to be enlarged." It appears to me that there is here a fallacy in the assumption that one leg does the work of two, as one kidney does double work, and, in doing so, doubles its size and weight, when its fellow is congenitally absent or destroyed by disease. A one-legged man of necessity has the assistance of some artificial support in walking; this support—be it an artificial limb, or crutch, or stick—bears the weight of the body alternately with the active leg, which has only the same proportional amount of work as if its fellow were a living limb instead of a stick. There is no physiological reason, therefore, why the muscles in the one leg should afford a conspicuous example of hypertrophy.

Again, the Reviewer argues that clinical evidence is opposed to the doctrine that the involuntary muscle is strengthened by hypertrophy, because in no cases does impeded circulation "more frequently occur than in patients with thick lumbering hearts; and there are few bladders whence the urine is expelled with less force than those thickened by hypertrophy." The explanation of this impeded circulation, and this difficult micturition, is to be found, not in the hypertrophy of the walls of the heart and of the bladder, but in the arterial and urethral obstruction which precedes and causes the hypertrophy. The question is not whether hypertrophy of involuntary muscle tends to conserve the part or the individual for an unlimited period, but does a man with a rigid or a narrowed aorta live longer when the walls of his left ventricle grow thick and strong, than when this hypertrophy is absent? Does a man with a strictured urethra fare better when the coats of the bladder are hypertrophied than when they remain of the normal thickness? Clinical evidence gives an affirmative answer to both these questions, and declares that conservative hypertrophy prevents destructive dilatation of hollow muscles. It is often found after death that the hypertrophied muscular tissue of the heart has undergone fatty or granular degeneration, and the reason is not difficult to discover. With a permanent, and it may be an increasing, impediment to the circulation, there comes a time when the propulsive force of the heart is insufficient to overcome the obstacle, the circulation through the coronary as through other vessels begins to fail, the nutrition of the heart's walls is impaired, its muscular fibre degenerates, and the tissue, which had been firm and fleshy, rapidly becomes soft and oily, with a corresponding loss of vital power and a speedily fatal result.

Surely we have "experimental demonstration of the actual force of hypertrophied muscle" in the physical signs which accompany hypertrophy of the heart, especially in the strong heaving impulse which forcibly raises the head of the auscultator. Again, in those cases of hypertrophy of the left ventricle associated with chronic Bright's disease, when the valves and the coats of the larger arteries being healthy, the excessive contraction of the muscular arterioles impedes the passage of the blood, the force of the hypertrophied heart is indicated, not only by the fulness and hardness of the radial pulse as felt by the finger, but also by the more exact evidence of increased arterial tension which the sphygmograph affords. (See upon this point Dr. Sanderson's *Hand-book of the Sphygmograph*, pp. 80, 81.)

Your correspondent, the "Medico-Chirurgical Reviewer," is not justified in asserting that Brodie, amongst others, shared with him his belief in the viability of an acardiac foetus. For whereas the Reviewer, relying, as he now confesses, upon a second-hand authority,

asserted that such a foetus had lived several days after birth, Brodie distinctly stated that it was born dead; and, again, with reference to the mode in which the circulation in such a monstrosity is carried on during its intrauterine life, more than thirty-five years ago (March 19th, 1836), Sir B. Brodie wrote to Sir Astley Cooper as follows (*Guy's Hospital Reports*, vol. i, p. 238): "As long ago as 1809, I published an account of the dissection of a foetus in which there was no heart, and in which, from such knowledge as I then had on the subject, I was led to believe that the circulation of the blood had been carried on by the agency of the vessels only. Dr. Young afterwards offered it as his opinion that the circulation in a foetus of this kind is maintained by the heart of the twin-foetus with which such a monster is uniformly associated. I forget the arguments which Dr. Young used; but I know that they satisfied me at the time, and that I expressed myself to that effect in my lectures at the College of Surgeons. I am not aware that any one else has investigated the subject; and I believe that it has been reserved for you, by the interesting dissection which you mentioned to me yesterday, to prove the accuracy of the conclusion at which Dr. Young had arrived in other ways."

Is it too much to hope that henceforth Brodie's acardiac foetus may never again be referred to as having lived several days after its birth, and as thereby affording conclusive evidence that the circulation in a human infant may be carried on without a heart? If the republication of a myth so unphysiological and so incredible be prevented, then, sir, your space and my time will not have been uselessly occupied with this discussion.

I am, etc.,

Savile Row, June 5, 1871.

GEORGE JOHNSON.

MEDICAL CONSULTATIONS.

SIR,—I confess to surprise, not unmingled with something like indignation, at seeing myself the subject of comment in the last two numbers of the JOURNAL. I think, and so do my friends, that my character might have sheltered me from such attacks.

The observations of your Irish correspondent I had made up my mind to pass over in silence; but the second article seems to have the editorial stamp, and therefore demands an answer. On one occasion, some three months before the death of the lady upon whose remains an inquest has lately been held in this city, I was requested to see her. She was at an hotel, and her friend Mr. Erson was in attendance upon her. It so happened that I did not then know that he did not possess some one of the many qualifications which entitle men to practise, or even to be placed on the *Register*. I directed the treatment which I considered suitable; and I certainly never for a moment considered it my duty to question the right of the gentleman to be in attendance on his friend. I know, and it is the experience of others, that meeting persons admittedly unqualified—such, for example, as students and assistants of medical men in general practice—cannot and ought not to be avoided. Concerning these no question can arise; but physicians may often, inadvertently, consult (in the true meaning of the word) with practitioners who afterwards are found to be unqualified and unregistered; and I know of no means by which this can be avoided unless consulting-physicians forget (which I trust they never will) that they ought to be gentlemen and not detectives, making the *Medical Register* their *vade mecum*.

I am not aware of any written law to regulate medical consultations which can apply to all cases; but there is an unwritten law which governs gentlemen in their intercourse with their professional brethren. Having stated that I have, under certain circumstances, met unqualified persons—a course from which I do not propose to deviate—I may add that I have very often, at considerable sacrifice, declined to meet in consultation medical men in the full possession of what your correspondent considers all that is essential, namely, registration, and an acknowledged diploma, but which in my humble opinion cannot always be held to be sufficient.

I am, etc.,

J. T. BANKS.

Merrion Square, Dublin, June 6th, 1871.

SIR,—In the last two numbers of the BRITISH MEDICAL JOURNAL, under the heading of "Medical Etiquette" and "Irregular Consultations", you have taken much trouble to erect a standing point from which to slander some of the most eminent physicians and surgeons of this city. The position and reputation of Dr. Banks (to whom you particularly draw attention) ought to have protected him from observations of which he and his Fellows in the profession have much reason to complain. I am satisfied that the College of Physicians (which has repeatedly elevated him into the highest places and honours in their power to confer) feel that the honour of the College and of the profession is perfectly safe in his hands, and that they do not require from him any

"explanation of the facts or declaration of the principles which guide him in accepting consultations".

If your anxiety had been to enlighten the public, or to place before the profession the true nature of consultations, you would have stated, what must be familiar to all gentlemen in extensive practice, that while no physician or surgeon who regards the honour of the profession will knowingly consult (*i.e.*, "take counsel, deliberate in common"—*Johnson*) with an irregular practitioner, instances are of daily occurrence where patients apply for advice, accompanied by a senior medical student, or an apothecary's assistant, or a druggist, or other such attendant, and the advice and directions are given without even the semblance of a consultation, although the attendant may choose to dignify the visit with such title. In my opinion, the physicians and surgeons of Dublin fully carry out the maxim which, with others, is said to have guided the practice of the Commissioners of the Washington Treaty—"not to cavil about forms or phraseology, but only to insist firmly on that which involved principle, or was matter of substance"—and I would venture to recommend that the Editor of the BRITISH MEDICAL JOURNAL would in future adopt the same practice.

I am, etc.,

SAMUEL GORDON,
Vice-President of the College of Physicians.

MR. CORRANCE ON THE IRISH POOR-LAW SYSTEM.

SIR,—Your remarks upon the questions I have recently had the honour to address to members of the medical profession and others connected with the administration of the Irish Medical Charities Act, induce me to offer an explanation of the object which they were framed to promote.

In adverting to the first question, you remark that its intention is vague. Now, permit me to say this: that it has been a matter of no surprise to me to find that in Ireland, where the outdoor system of relief has never, except for a short period and under some special circumstances, obtained, the pertinence of this question has not been clearly felt. But that it should be so in England is not only extraordinary, but of great significance, as evidence how slight is our grasp of the subject itself.

Even if it were desirable to forestall the full development of this question which will shortly take place, time will not now permit me to enter into the full bearing of such an inquiry; but I will venture to say this much, that upon the conclusion to which it may conduct will ultimately depend the whole practical value of the reforms we wish to introduce; and that every other succeeding question will be found subordinate to this.

It is of no mean importance to secure, by system, the benefits of medical aid to the poorer class; of no slight consequence that the independence of medical officers, and their just remuneration for important services, should take place; and it is of increasing interest that a more scientific treatment of zymotic complaints should supersede neglect. But above all these matters of detail arise the questions: Are the principles upon which we are administering the Poor Laws sound or not? Are they those which governed the minds of the great reformers of forty years back? Were those principles sound, or were they not? Have we benefited by our departure from them in any true sense? And finally, if it should seem that, under a total want of scientific knowledge and treatment, and a rude application of machinery, the system has broken down, it must become of infinite importance to investigate causes, obscure as yet; for by so doing alone can it be possible for us to regain the status we have lost, or to apply the true remedy to the case. Guided by this clue, I think it will not be difficult to read the enigma set, the full explanation of which I shall reserve for a future time and place.

I am, Sir, yours very faithfully,

Carlton Club, June 8th.

S. L. CORRANCE, M.P.

CLUB ELECTIONS.

SIR,—A recent episode in the history of club elections will serve to show why, after so great sacrifices, so little good has resulted. The *dramatis personæ* are Messrs. Duncalfe and Evans, the possessors of one of the most lucrative practices in South Staffordshire, and myself, the medical attendant on the members of the Trinity Church Sick Society, West Bromwich. The majority of sick societies pay three shillings per head *per annum*. As the result of the recent agitation, this society increased the remuneration to four shillings *per annum*, and, nothing having transpired to the contrary, no intention was manifested of a desire to change. At the election, however, last Monday, an offer was made by the gentlemen in question—as testified by a record of that fact on the minutes of the society—to accept office at three shillings, being one shilling less. In my absence, my friends insisted upon the

offer being previously made to me, their old servant. I need not say I accepted it, and was unanimously re-elected. Thus ends the last trace of any material good as the result of our recent agitation. I need not say that the gentlemen in question were among those who agreed to the action taken at that time.

I am, etc.,

West Bromwich, July 5th, 1871.

JOHN MANLEY.

P.S. The society has been held by my predecessor and myself for upwards of twenty years.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN.

DEPUTATION TO THE POOR-LAW BOARD.

ON Thursday afternoon, a deputation waited upon Mr. Stansfeld to point out to him the difficulties arising from the steps taken by the Medical Department of the Privy Council to supersede Poor-law vaccination by the appointment of district vaccinators. The deputation was introduced by Mr. W. H. Smith, M.P. There were present—Mr. Corrance, M.P.; Dr. Dalrymple, M.P.; Dr. Joseph Rogers; Mr. Benson Baker; Dr. Thomas; Dr. Edward Jones; Mr. Massey Harding; Dr. Smith; and many other gentlemen interested in Poor-law questions. Mr. Smith, M.P., Dr. Rogers, Dr. Dalrymple, M.P., Mr. Wickham Barnes, Mr. Benson Baker, Dr. Thomas, and other gentlemen, addressed the President. They urged that the Poor-law medical officers, who really had the most knowledge of the poor and influence with them, were being superseded by the vaccinators appointed by the Privy Council Office. The effect of this change was, it was stated, to greatly increase the expense of vaccination, and at the same time to decrease very largely the number of persons vaccinated. The cost of the stations alone amounted to the former cost of the vaccination as a whole, and the people had no confidence in the newly appointed vaccinators when they knew the change, and would not go to them. Statistics were given to show that vaccination had greatly decreased where the new system was carried out—Birmingham being quoted as an instance. It was also urged that the Poor-law medical officers were responsible for the health of the poor, and that it was a bad principle to take from them the power of preventing small-pox by their being unable to vaccinate persons in houses where in their visits they found an attack of the epidemic. It was urged that this change had been made injudiciously at a time when the epidemic was fully upon the population, and that it was a most dangerous experiment.

Mr. Smith strongly urged that what was most desired was a consolidation of authority over Poor-law administration; but this new action of the Privy Council had gone to create a new body with still more divided responsibility; the Poor-law medical officers being under the Poor-law Board, the medical officers of health under another authority, and now in addition the vaccinators. Mr. Stansfeld, in reply, confessed that he could not answer the arguments urged. He pleaded that his department only acted ministerially in the matter, having to work by the Act of Parliament; and said that the guardians, in his opinion, were not obliged to supersede the medical officers by appointing vaccinators. In answer to Mr. Corrance, he said he did not know who was responsible if there was any laxity in carrying out the work; and, in answer to further questions, he said he would advise inquiries to be made at the Privy Council Department. The deputation then withdrew.

MEDICAL RELIEF: CENTRAL CHAMBER OF AGRICULTURE.

AT a meeting of the Central Chamber of Agriculture, Sir Massey Lopes, President, in the Chair, there were present Lord Fitzwalter, The Hon. G. W. Miles, M.P., Sir John Croft, Dr. Rogers, Mr. C. S. Read, M.P., Mr. Pell, M.P., Mr. Corrance, M.P., Mr. Knight, M.P., Dr. Dalrymple, M.P., etc. After the usual routine business had been disposed of, the question of the evening was introduced by Dr. Rogers, viz., Poor-law medical relief, in which it was conclusively shown that sickness was the most important factor in producing pauperism. An increase of pauperism meant an increase of local rates; and underpaid medical service did not insure the efficient treatment of the sick poor. Only four per cent. of adult males were destitute from want of work, while thirteen per cent. of the out-door-paupers, and thirty per cent. of the indoor, were on the medical officers' books, this being wholly independent of the families dependent on those who could not maintain them through sickness. Mr. Varden, of Worcester, moved—"That

the present system of medical Poor-law relief is inadequate to the wants of the poorer classes, is unsatisfactory in its results, and requires amendment. To this end it is expedient that the provisions of the Irish Medical Charities Act and a dispensary system be generally adopted throughout England, with such modifications as may render it applicable to the English system of Poor-law administration." This was unanimously carried, and a vote of thanks to Dr. Rogers followed.

THE WORCESTER GUARDIANS AGAIN.

WE noticed a few weeks ago an examination into a case of alleged neglect by a medical officer of a poor woman who had not obtained an order for his attendance. It was then clearly shown that Dr. Woodward was not responsible for the case, and consequently was exonerated from all blame. A Mr. Stallard, a guardian, was not satisfied with the decision of his brother guardians, and forwarded a letter to the Poor-law Board intimating that Dr. Woodward had shirked his duty, and endeavoured to get rid of his pauper patients by recommending them to go to the Worcester Dispensary. The following letter confirms the decision of the guardians, and shows that Dr. Woodward was not wrong in acting as he did.

Poor-law Board, Whitehall, S.W., 17th May, 1871.

Sir,—I am directed by the Poor-law Board to acknowledge the receipt of your letter of the 17th ultimo, respecting the representations contained in Mr. Stallard's communication of the 31st March last as to your proceedings, as a district medical officer of the Worcester Union, in the case of a poor woman named Elizabeth Harcourt deceased; and I am to transmit, for your information, the accompanying copy of a letter which the Board on the 6th instant addressed to Mr. Stallard on the subject.

I am, Sir, your obedient servant,

FRAS. FLETCHER, *Assistant Secretary.*

To W. Woodward, Esq., Medical Officer, Worcester.

(COPY.)

Poor-law Board, Whitehall, S.W., 6th May, 1871.

Sir,—The Poor-law Board have been in communication with Dr. Woodward respecting the representations contained in your letter of the 31st ultimo, in reference to his proceedings as one of the medical officers of the Worcester Union.

I am directed to inform you that, in strictness, a Poor-law medical officer is only bound to visit a poor person requiring medical aid when he receives an order for his attendance granted by competent authority. Under other circumstances, the relation between the medical officer and any person whom he may be requested to visit, even though the applicant be a poor person, is of a private character, unless, indeed, he alters that relation by undertaking to attend, in his capacity of Poor-law medical officer, upon the case without an order.

As regards the particular case to which you have called the attention of the Board, I am directed to state that it appears to them that Dr. Woodward may have incurred responsibility, as a professional man, in undertaking to give advice to Elizabeth Harcourt as to the course she should take for obtaining medical aid. The Board are, however, of opinion that your letter does not disclose any proceedings on the part of Dr. Woodward as medical officer which renders their interference necessary.

I am, Sir, your obedient servant,

(Signed) J. T. HIBBERT, *Secretary.*

VACANCIES.

- BICESTER UNION, Oxfordshire—Medical Officer for the Bicester District and the Workhouse.
BRACKLEY UNION, Northamptonshire—Medical Officer for District No. 1 and the Workhouse.
CITY OF LONDON UNION—Temporary Medical Officer for the Union Workhouse Infirmary at Homerton.
DAILLY, Ayrshire—Parochial Medical Officer.
ETON UNION, Bucks—Medical Officer and Public Vaccinator for the Stoke District.
HENLEY UNION, Oxfordshire—Medical Officer for the Nettlebed District.
LUNESDALE UNION, Lancashire—Medical Officer and Public Vaccinator for No. 1 or Hornby District and the Workhouse.
NARBERTH UNION, Pembrokeshire—Medical Officer for District No. 3.
SOUTH MOLTON UNION, Devonshire—Medical Officer for District No. 9.
STRAITH, Isle of Skye—Parochial Medical Officer.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

IRISH POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE first Annual Meeting of this Association was held on Monday, June 5th, in the Rotundo, Dublin. The chair was taken by Dr. HANRAHAN, of the Queen's County. The Chairman remarked that

it was the feeling of the profession in his part of the country, if not all over Ireland, that their affairs should be managed more efficiently than they were at present, and that they each should have a voice in the matter. The Poor-law medical officers represented one-half of the profession, and he, as one of them, did not see why they should be precluded from managing their own affairs, with which, of course, they were most conversant. It was now clear, both to the members of the profession and to the public of both countries, that the efficiency of the Poor-law medical system proved most important in the diminution of pauperism and taxation to the community. He therefore gave his adhesion to this association, and was of opinion that if the Poor-law medical officers did not look after their own interests, no one else would do so for them. He then called upon Dr. Maunsell, the energetic honorary secretary, to read the Report, which was as follows.

In bringing before your notice the first report of the Poor-law Medical Officers' Association of Ireland, I think it but right, as considerable diversity of opinion is alleged to exist as to the necessity for the formation of such an association, to give you a concise account of its origin, and of the objects that it has in view. I shall first allude to the cause of its formation. If you admit that numbers form an important element in the formation of an association, I mention the fact, that we number one thousand men, or one half of the medical profession of Ireland; by virtue of our office, we attend annually one-sixth of the population; if we deduct the cities and large towns, we have the sole care, from a sanitary point of view, of the whole of the rural districts of Ireland. Under such circumstances, when we find that the other officials connected with the Poor-law, and the members of every other profession, or branch of a profession, unite for the advancement of their own interests, and do so with advantage, I think that it is most narrow-minded, in fact, it is absurd, to say that we should not have an association for our own legitimate purposes. We see the advantages that have accrued to the English Poor-law medical officers from the formation of their association, and that it is not opposed by, or considered to be antagonistic to, the British Medical Association, which supports it in every way, as it freely and most cordially has extended its assistance to us; and the Editor of its JOURNAL has placed at our disposal a page weekly, for the reports of our meetings and the ventilation of our grievances; and I take this opportunity of thanking the press, both medical and general, for the many kindnesses that we have received at their hands. Our origin dates back, as several of you have, no doubt, a distinct recollection, to the passing of the Medical Charities' Act in 1851. At that time, Ireland was mapped out into dispensary districts, and our present system of Poor-law medical relief was then established. Since that time, I hope to be able to prove to you that we have done our duty, and that we have diminished sickness, pauperism, and taxation by the application of our skilled labour; and there are few amongst us who cannot point to vacancies that have occurred in our ranks, and to the names of men who have lost their lives in the performance of these duties. Notwithstanding all this, you will find it very difficult to prove that any amelioration or improvement of our condition has taken place within the last exactly twenty years, with the exception of a Permissive Superannuation Act. Why is this? may naturally be asked. My answer is—We never worked for ourselves, we trusted to others. I remember how the Superannuation Act was obtained. Deputations went to London from this, that, or the other society, and said that the Poor-law medical officers of Ireland ought to obtain superannuation. The powers that were at the time said that they supposed that they ought, but did not distinctly see why; they would, however, consider it. The deputation, of course, argued with them, but did not exactly understand the question "as to the why"; and the case fell through, I forget how often. Now—and I trust that in the statement I am about to make you will eliminate all idea of egotism on my part—as our association has been abused for having had the presumption to start with objects in view identical with those of other associations, but which, I say, unfortunately for all of us, those other associations did not exactly understand, I think it but due both to this association and myself to mention the facts of the case, and to explain how our Superannuation Act came to pass. It occurred to me at the time to take up the question of medical charities. In pursuing it, I found that our case was a good one. I published it in the *Medical Press*. A copy was sent to every member of Parliament, at the expense of the Irish Medical Association. The admirable speech of Dr. Brady was based on that pamphlet. Here is the pamphlet, and here is an extract from "Hansard's Parliamentary Reports" of Dr. Brady's speech. The Bill passed—the arguments were unanswerable—the case was proved; but, as Mr. Gregory said at the time, it was not because we were medical men—not because of the hardship of our case—but because that it had been proved that we had diminished taxation by decreasing sickness, which is admitted to be the great cause of pauperism by the best authorities,

to the extent of from 50 to 60 per cent., that it was deemed to be expedient that our service should be maintained in an efficient state. I merely adduce this as an argument that, if we wish to have our grievances redressed—that is, if we have any grievances (and few of us will admit that we have not)—we must look after those grievances ourselves. It is all very fine to say that we have British Medical Associations, and Irish Medical Associations, but we have especial interests and grievances that only occur to ourselves; these it is the object of this Association to make public, and to redress, if possible; and that is our primary object. These interests belong to us, over and above our responsibilities as members of the medical profession, pure and simple; and for this reason we have formed ourselves into a Poor-law Medical Officers' Association. We shall be most happy to co-operate with any other medical association, their interests being identical with ours as far as they go; but upon those interests are superimposed those of our own class; and it is for this reason that we hold our first meeting here to-day. It is hardly necessary to thank the other associations for their good wishes; we are so intimately connected, that we may be said to be almost indivisible; and our interests being almost identical, there is no doubt, I think, that we shall ultimately work harmoniously. But, at the same time, I am still of the belief that, for the purpose of redressing our own particular grievances, it is necessary for us to have, as the Poor-law medical officers have in England, an association of our own, more especially when you consider our number and importance, and the very important feature that we form in the management of the poor-rates and the taxation of the country. It has been for a long time supposed that economy in the working of the Union Establishment was the main thing in reducing the poor-rates. It is, I grant you, a most important item. It is very important to have an efficient master, clerk, and so on; but it is more important to prevent the manufacture of the pauper; and if you admit that the sickness or death of the head of a family does this, it is of the utmost importance to prevent its occurrence. To obtain this result in the most efficient manner, was the object of the Medical Charities Act; and as many of you have not studied the results as a business, or have devoted your attention at all, perhaps, to this subject, if you will allow me, I will tell you what we have done—what we have done for the health, and what we have done towards the diminution of the taxation of this country, which cannot in any other way be satisfactorily accounted for. But under our exertions—under the Medical Charities Act, and its operation in this country—this has been so satisfactorily proved, that it is now about to be introduced into England, a compliment which they seldom pay us, and would probably not now occur, but that the advantages of our system are at present received as an established fact.

After quoting the statistics of Mr. W. H. Smith's returns, and stating the declared programme and constitution of the Society, already published in our columns, Dr. Maunsell proceeded:—Now, as to our objects—as disease is not parochial or local, and, owing to the intercommunication which takes place now-a-days, it is not even national, but international (see the present epidemic of small-pox), it is but just that our whole salaries should be paid by the State, instead of half, as at present. Why should we in Dublin have to pay for a small-pox epidemic in London, as we have at present; most of the cases of that disease which have occurred here up to the present having been directly traceable to England? This would take from £60,000 to £70,000 a year off the rates. This ought not to be objectionable to boards of guardians or ratepayers, and if clearly brought before them would, no doubt, have their support. With regard to ourselves, the advantages would be these—we would become, as it were, members of the civil service, with salaries increasing with length of service, promotion in our ranks, and fixed superannuation. The indiscriminate issue of dispensary tickets, and the absence of the definition of a "poor person," which occurs in the Medical Charities Act, is also a grievance, not only to ourselves, but to every medical man, as was clearly shown in the *BRITISH MEDICAL JOURNAL* last week. The imposition of gratuitous medical duties upon us, as for instance, the certifying for dangerous lunatics, etc., is a subject which Sir Dominic Corrigan has taken in hand; and he will, no doubt, handle it effectually, as we have already had occasion to ask him to come to our assistance, and he did so freely, and with the best results. We should be guilty of ingratitude if we did not take this our earliest opportunity of thanking him for the advice and assistance that from time to time he has so kindly afforded to this Association. There are many other objects connected with this Association, and many other grievances that I have not alluded to will crop up from time to time; many others already exist—these it will be our duty to endeavour to rectify as they are brought under our notice.

I think, however, that now I may have made out sufficient cause why we exist at all. I have shown that we are not antagonistic to any other association, and finally, that no one knows where our shoes pinch so well

as we do our lives. All this culminates in the self-evident proposition—that if we want our business well done, we must do it ourselves.

Alderman RYAN, M.D., proposed the adoption of the report. Referring to Mr. Corrance's queries, of which a copy had been forwarded to him, he remarked that, in the conversation which he had with Mr. Corrance, that gentleman appeared fully alive to the shortcomings of the system, and had intimately considered it; and that, in the introduction of a similar system into England, the indiscriminate and undue issue of tickets as in Ireland would be avoided. Mr. Corrance's queries were of great importance, and, with the restrictions contained in the report of the Association, he was of opinion that the feeling of the meeting was unanimous on the advantage of having an efficient Poor-law medical system. We have our grievances here—it is for their redress that we have our Association; the advantages that the public have derived from our system have been proved, both from a sanitary and economical point of view; it devolves upon us now to look after ourselves.—Dr. BLAKELY seconded the resolution, which was carried unanimously.

Dr. LALOR proposed a vote of thanks to Sir Dominic Corrigan, for the warm interest which he had evinced towards the Association in his parliamentary career. He complained that, while resident medical superintendents of district asylums in England were entitled to two-thirds of their salaries and allowances at the end of fifteen years, the resident superintendents in Ireland could not get that amount of superannuation until after forty years' service.—Dr. MAUNSELL, in seconding the resolution, referred to the kindness and attention with which Sir Dominic always listened to the representations of that body. The resolution was carried unanimously.

On the motion of Dr. MOORE, seconded by Dr. MURDOCK, the following resolution was passed—"That it would be for the public good as well as in accordance with the recommendation of the Royal Commission, and but just to the Irish Poor-law medical service, that the officers of that service should be appointed sanitary officers, as by law (1866), in times of the prevalence of epidemic disease, and that such officers should be remunerated accordingly."

On the motion of Dr. CURRAN, seconded by Dr. NEARY, it was resolved—"That the present rate of annual subscription to the Association should be doubled."

Dr. GRIMSHAW proposed—"That we are of opinion that the whole of the salaries of the Poor-law medical officers should be paid by the State, as disease is not a local but a national calamity."—He referred to the cases of small-pox and cholera, which had been conveyed here from England in support of his views.

Dr. TATE seconded the resolution, which was passed unanimously.

Dr. Lalor was then moved to the second chair; and on the motion of Alderman RYAN, M.D., seconded by Dr. SPEEDY, a vote of thanks was passed to the prior chairman.

A vote of thanks was also passed on the motion of Dr. MOORE, seconded by Dr. HANRAHAN, to Dr. Maunsell, Honorary Secretary, and Dr. Speedy, Honorary Treasurer, for their indefatigable attention to the Association.

A vote of thanks was proposed by Dr. Eames, of Mercer's Hospital, to the Press, both general and professional, for the invaluable assistance that they had rendered by their full and accurate reports. After some routine business, the meeting then broke up. We understand that the next quarterly meeting of the Irish Poor-law Medical Officers' Association will take place at the Limerick Junction.

VACANCIES.

CELBRIDGE UNION, co. Kildare—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Lucan Dispensary District.
OMAGH UNION, co. Tyrone—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Omagh Dispensary District.
TULLA UNION, co. Clare—Medical Officer for the Quin Dispensary District.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

ANATOMY AND PHYSIOLOGY.—Professor Humphry gives notice that in the ensuing long vacation (July and August) there will be classes for instruction in Practical Anatomy on Tuesdays, Thursdays, and Saturdays, at half-past twelve, commencing July 4th. There will also be classes for instruction in Practical Histology on Wednesdays and Fridays at half-past twelve, commencing July 5th. This, together with a course of instruction in the Physiological Laboratory under the direction of Dr. Michael Foster, will constitute a course of Practical Physiology. Gentlemen who have entered to the anatomical lectures will be at liberty to attend these classes without additional fee.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, June 2nd.

POOR-LAW MEDICAL SERVICE.—Mr. Muntz said that the Poor-law medical service, as now conducted, was little better than a farce. The office was taken at absurdly low salaries, either to keep new medical men out or by new men to get a footing in the parish, and in neither case were the poor cared for.—Mr. Selater-Booth defended the practice, and said medical men took the appointment as they took hospital practice.—Mr. Read said that in rural districts medical officers were appointed to single parishes, and the salary of £5 was held to be sufficient.

POOR-LAW DISPENSARIES.—In answer to Dr. Lush, Mr. Stansfeld said that the time had hardly arrived for finally settling this question. It was much to be doubted whether he should be able to introduce a Bill on the subject during the course of the present session.

MEDICAL NEWS.

THE UNITED HOSPITALS ATHLETIC CLUB.

COLD, dusty, and disagreeable, as the day was, the annual meeting of this Club was never so well attended, never graced by the attendance of so many ladies as on Thursday of last week. Originated in 1867, the Club has had an up-hill fight; but, pushed forward by the energetic office-bearers, it has year by year become stronger and stronger, and gained rapidly in popularity. The number of visitors last week was probably little under three thousand, and was largely made up, of course, by the presence of students from the different hospitals, who presented in no individual case that we saw those characteristics of many of the medical students of thirty years ago, with whom we have been made familiar by Albert Smith. The Earl of Jersey and Mr. R. V. Somers-Smith kindly acted as judges; Mr. J. G. Chambers as starter; and Mr. W. M. Chinnery as handicapper. Through the exertions of these gentlemen, and the arrangements of the honorary secretary, Mr. Richardson Cross, and Mr. J. H. Ewart, the treasurer, both of whom deserve special thanks, there was little lagging between the different events, which came off with punctuality.

The honours of the day were divided between Guy's, King's, and University, and it is strange that the good long distance men come from the last, whilst the first succeeded in securing most of the non-running events. King's, as it has always done, provided the best sprinters. The best performance of the day was Mr. Power's (Guy's) put, which is not often surpassed at athletic meetings. The same gentleman also secured the hammer throw with seventy-six feet and a half. This throw was not very alarming for an athlete with such a commanding reach, which, however, stood him in good stead in the hurdle race, as he won "hands down". Were he to practise, we fancy he would take a lot of beating by the best short steeple-chasers of the day. Guy's brought out another first-rate man in Bayer, who threw the cricket-ball one hundred and eleven yards; and Jones, the winner of the high jump, who appeared to carry with him the special interest of Guy's men, cleared almost his own height in a very jaunty style. Ivor Lewis and Tyson are the other good men from the same stable. But the former seemed out of form, and the latter, though a very game, good all-round runner, was scarcely class enough to win first prizes. Had he made his effort a bit sooner, however, we think he would have secured the half-mile from Goodeve.

Guy's secured the greatest number of seconds, and thus is champion for the year. This success is chiefly due to Power, who has won the very events that Josh. Nunn used to look upon as his own in the days when Guy's was champion before.

The King's men, for the size of the school, had a very large number of entries, and they secured the same number of first prizes as Guy's. H. R. O. Cross won the two hundred and fifty yards and a quarter, which have been so frequently secured by Mr. F. Richardson Cross from the same college; he ran in prettier form than any competitor, and had he not rolled over at his hurdles would probably have secured the four hundred and forty yard hurdles, but this fell to one of the same school, Stevens, who is very strong and safe, though not very fast between his jumps; Cross, however, secured second honours. E. M. Madden secured the long jump with nineteen feet three inches, and won the hundred yards challenge cup cleverly; Watson, who would have kept the cup had he won it for the third time, only got third. This race has always, except when Conolly won it, been carried off by King's, which has, besides, had a man second on three occasions. Batterbury secured the second prize in the high jump, and De Lautour got second in the mile.

University seems to have now received the long distance cloak which has fallen from St. George's shoulders, as Goodeve, who may be considered as quite a colt, cantered away with the two mile race as easily as Norman was wont to do, and in the half-mile made the running so cleverly as to "do" Tyson of Guy's, who seemed rapidly nearing him, only by a foot. Kelly made a good spurt in the mile race three hundred yards from home, and came down the straight so gallantly with the wind in his teeth, that he would probably have done better time than four minutes fifty-four seconds, if some one had stretched him a bit the first half-mile.

Bartholomew's had a good man in Haig, who ran a good second in the hundred and twenty hurdles, jumping long and low, and running fast between his leaps. Head, who has won the half-mile on two occasions, seemed this year unable to stay, and probably had not time to train.

At the termination of the sports, Mrs. Sidney Jones presented the prizes to the successful competitors, who were addressed in a few suitable words by Dr. Barnes. The band of the Coldstream Guards, under the leadership of Mr. Dan Godfrey, performed a selection of pieces during the afternoon. It is, we understand, proposed to arrange interhospital rowing matches—a scheme which, however, may not be carried out this session.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 1st, 1871.

Corrie, Alfred Thomas, Plymouth
Hodges, Frank Henry, Birmingham
Langdale, Henry Marmaduke, East Hoatley, Sussex
Magrath, John, Forest Row, East Grinstead
Maisey, Frederick Thomas, Cheltenham
Passmore, Frederic George, Brighton

The following gentlemen also on the same day passed their first professional examination.

Austin, Corneby, University College
Bland, George, St. Bartholomew's Hospital
Jackson, Francis Edward, St. Bartholomew's Hospital

ROYAL COLLEGE OF SURGEONS.—The following members of the College, having undergone the necessary examinations for the Fellowship on the 25th, 26th, and 27th ultimo, were reported to have acquitted themselves to the satisfaction of the Court of Examiners; and, at a meeting of the Council on the 8th instant, were admitted Fellows of the College.

Ashby, Alfred, Staines, Middlesex; diploma of membership dated July 21, 1869
Bartleet, Thomas Hiron, Old Square, Birmingham; February 3, 1860
Bloxam, John Astley, St. Bartholomew's Hospital; November 15, 1864
Churchill, Frederick, Great George Street, Westminster; July 23, 1867
Cooke, Thomas, Herne Hill; January 26, 1871
Goodall, William Preston, Newhall Street, Birmingham; June 15, 1855
Lucas, Richard Clement, Hungerford, Berks; January 21, 1868
Roberts, Charles, York; April 18, 1859
Square, William, Portland Square, Plymouth; April 24, 1866
Tait, Robert Lawson, Waterloo Street, Birmingham; January 25, 1870
Welch, Francis H., H.M. 22nd Regiment, Charles Fort, Kinsale; May 8, 1860

Seven candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their hospital studies for one year.

MEDICAL VACANCIES.

The following vacancies are announced:—

BIRMINGHAM NEW HOSPITAL FOR WOMEN—Four Acting Medical Officers.
BIRMINGHAM and MIDLAND FREE HOSPITAL for SICK CHILDREN—Two extra Acting Physicians; Ophthalmic Surgeon.
CITY OF DUBLIN HOSPITAL—Physician.
DENTAL HOSPITAL OF LONDON, Soho Square—Assistant Dental Surgeon.
DEVON COUNTY LUNATIC ASYLUM—Assistant Medical Officer.
DISPENSARY FOR SKIN DISEASES, Bishop Street, Dublin—Physician.
EDINBURGH VETERINARY COLLEGE—Professor of Zootomy or Comparative Anatomy; Professor of Cattle Pathology.
HUDDERSFIELD and UPPER AGBRIGG INFIRMARY—Physician.
LEEDS PUBLIC DISPENSARY—Resident Medical Officer.
LEICESTER INFIRMARY AND FEVER HOUSE—House-Surgeon and Apothecary.
LONDON SCHOOL OF DENTAL SURGERY, Soho Square—Lecturer on Mechanical Dentistry.
MACCLESFIELD DISPENSARY—House-Surgeon.
METROPOLITAN FREE HOSPITAL—Assistant Physician.
ROYAL COLLEGE OF SURGEONS, IRELAND—Demonstrator of Anatomy.
SOMERSET COUNTY LUNATIC ASYLUM, Wells—Assistant Medical Officer.
WEST LONDON HOSPITAL—Junior Surgeon; Physician for Diseases of Women; Ophthalmic Surgeon.
WORCESTER GENERAL INFIRMARY—Dispenser.

[For Poor-law Vacancies see Poor-law Department.]

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic Hospital, 2 P.M.

SATURDAY St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society. 8 P.M., Ballot. 8.30 P.M., Mr. Paget, "On the Removal of Tumours from Bones"; Mr. Spencer Wells, "A Fourth Series of One Hundred Cases of Ovariectomy."

WEDNESDAY.—Epidemiological Society, 8 P.M. Election of Office-Bearers; adjourned discussion on Inspector-General Lawson's paper.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with *halfpenny* stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

THE letters of Mr. Steele and Dr. Tilbury Fox on Spurious or Imperfect Vaccination, Dr. Nicolson on the Mortality of Convict Prisons, Mr. Greenway and others, will appear next week. They are omitted from pressure on space.

WE are compelled, by the length of other reports, to postpone the publication of the Reports of the Meeting of the Irish Medical Association and Medical Benevolent Society.

A METROPOLITAN FELLOW.—The Secretary of the College of Surgeons has sent the usual notices of the annual election into the Council, to all the Fellows whose addresses are known at the College. Any who have not received them should write at once to the Secretary.

ABNORMAL ERUPTIONS IN SMALL-POX.

SIR,—In reply to Dr. Henderson's remarks upon my second case, which I believe to have been one of purpuric small-pox, I may observe, what should have been stated in my report of the case, that the child had had both measles and scarlatina previously; and it seems to me at least quite as likely that a child might have a malignant form of small-pox after vaccination, as that it should have either measles or scarlatina of a malignant type, having already suffered from each of these diseases previously. In fact, judging from my experience during the present epidemic, it appears to me that even a fairly good vaccination, performed a considerable time before, is far less efficient as a protective against small-pox, than an attack of measles, scarlatina, or small-pox is against a second attack of these diseases respectively; and that nothing short of systematic periodic revaccination, at intervals of a few years, and especially whenever an epidemic is prevalent, can be considered as conferring immunity from small-pox. If capability of being successfully revaccinated implies also capability of taking small-pox, the period of complete immunity secured by vaccination is certainly, in most cases, not great. In evidence of this, I might refer to the interesting statistics published in the BRITISH MEDICAL JOURNAL for January 21st, by my friend Mr. F. H. Gervis, of Havestock Hill, Surgeon to the Orphan Working School. Out of 376 children, from 8 to 15 years old, who were revaccinated in that Institution, and all of whom presented well-marked cicatrices, in 321 cases the revaccination took effect. As regards purpuric small-pox, Dr. Mitchell, one of the parochial medical officers of this neighbourhood, informs me that he has had two such cases lately, occurring in children of 14 and 8 respectively, both of whom had been vaccinated; and in the former case, Dr. Mitchell particularly examined the arm, and found two fairly good cicatrices. Both of these children died on the fourth or fifth day. In my own case, the general symptoms, the scattered papules appearing on the forehead and face, the great prevalence of small-pox in the neighbourhood, and the circumstance of the child's having already had both scarlatina and measles, together with the fact that similar cases have occurred to various other medical men who have seen much of small-pox during the present epidemic, lead me to entertain no doubt that the case was really one of small-pox of a malignant type.

I am, etc., FREDERICK POLLARD, M.B.

St. Pancras and Northern Dispensary, June 7th, 1871.

THE *Veterinarian* of this month intimates that Dr. Anstie and Mr. Carter are the two members of the *Lancet* staff identified with the framing of "the *Lancet* Medical Acts Amendment Bill."

ANTI-VACCINATORS.

A ROUGH remark in our last issue has, says the *Spectator*, brought down on our heads a storm of objections. We said that vaccination was decreed by two or three scoundrels and a good many fools, whereupon we are asked whether we class Mr. Newman among the scoundrels, or the late Dr. Bedford among the fools; what we mean by publishing such falsehoods; why we are deluding the people; and all manner of amenities. The letters we could stand up against, but the deluge of tracts is too much; and so we give in, the more readily because the expression was inartistic. We beg, therefore, to declare that people who denounce vaccination in order to sell nostrums are not scoundrels, but only persons who risk human lives for gain; and that people who denounce vaccination from philanthropic motives are not fools, but only persons devoid of the faculty of weighing evidence.

NOTHING LIKE LEATHER.

THE President of the Liverpool Chemists' Association observes, in his annual address:—"Our attention has no doubt often been called to the consideration of the causes of the unhealthiness of Liverpool, or, rather—as I believe it would be more correct to say—of *parts* of Liverpool. To *chemistry* our town authorities are now looking for a remedy, and we shall wait with much interest for the report of the able *chemists*, Doctors Parkes and Sanderson, to whom the inquiry has been intrusted."

MR. EVANS (Hull).—There may be objections to the rules, but we see nothing in them derogatory to professional honour.

THE INCENDIARIES OF PARIS.

A COMMISSION of the Academy of Sciences of Paris has undertaken the study of the different processes used by the Communists for burning the Tuileries, Palais Royal, etc. Hay soaked with petroleum appears to have been a kind of fuel much used, as well as canisters full of petroleum. Sometimes, petroleum being poured into the cellars from outside, a flaming match was thrown into the impregnated atmosphere. There is no truth, it is announced, in the stories of firemen pumping petroleum into the flames.

VAPOROUS ANÆSTHETICS.

SIR,—You are doing good in giving opportunity for a fair consideration of the probable causes of death from chloroform. Mr. Lister, in the volume of *Holmes's Surgery* just published, renews and repeats his objections to complex inhalers, especially such, I suppose, as that of one of the makers known as Clover's apparatus, during the use of which several deaths have occurred; in one word, apparatuses will not make chloroform safe, where a fair experience of chloroform is wanting. As only one side of this question is permitted in the other journals, the BRITISH MEDICAL JOURNAL is our only resource in getting a judicious hearing for both sides.

I am, etc., CHARLES KIDD, M.D.
Sackville Street, June 6th.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, June 3rd; The New York Medical Record, May 25th; The Boston Medical and Surgical Journal, May 25th; The Madras Mail, March 27th; The Shield, June 3rd; The Philadelphia Medical Times, May 17th; The Philadelphia Medical Independent, May 20th; The Scotsman, May 31st and June 1st; The Isle of Wight Times and Hampshire Gazette, June 1st; The Western Mercury and Somersetshire Herald, June 3rd; The Birmingham Daily Post, June 1st and 2nd; The Auckland Times and Herald, June 2nd; etc.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

The Rev. Dr. Haughton, Dublin; Dr. J. Rose Cormack, Paris; Dr. C. Handfield Jones, London; Dr. T. L. Bruntton, London; Dr. Clifford Allbutt, Leeds; Our Dublin Correspondent; The Secretary of the Royal Medical and Chirurgical Society; Miss Mary Anderson, Edinburgh; Mr. Harry Leach, Greenwich; The Secretary of the Clinical Society; Mr. D. Kent Jones, Beaumaris; The Secretary of the Royal College of Physicians, London; Dr. Bateman, Norwich; Dr. Lyon Playfair, London; Dr. Mapother, Dublin; Our Berlin Correspondent; Mr. E. W. Way, Edinburgh; Mr. Keys, London; Dr. Grimshaw, Dublin; Mr. James Lane, London; Dr. J. S. Holden, Larne; Dr. Bacon, Fulbourn; The Secretary of the Pathological Society; Mr. J. Dixon, London; Mr. Scattergood, Leeds; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Mr. Hemming, London; Mr. H. Wilson, Lutterworth; Mr. Hodgson, Brighton; Mr. Dolman, Derby; Dr. Woodward, Worcester; Dr. Joseph Rogers, London; Dr. G. E. Day, Torquay; Mr. James Bird, London; Dr. Bryan, Northampton; Mr. T. Watkin Williams, Birmingham; Mr. Clayton, Birmingham; Dr. Falconer, Bath; Dr. H. Rosborough Swanzy, Dublin; Mr. F. Churchill, London; Our Edinburgh Correspondent; Mr. S. C. Noble, Kendal; Dr. George Johnson, London; Mr. Robert Baker, Leamington; Mr. Richardson Cross, London; Dr. A. W. Edis, London; Dr. C. Kidd, London; Mr. J. N. Radcliffe, London; Dr. F. Pollard, London; Dr. Nicolson, Portland; Mr. Spencer Watson, London; Mr. A. J. H. Crespi, Birmingham; Dr. Acland, Oxford; Dr. Forbes Winslow, London; Dr. Murchison, London; Dr. Kelly, Taunton; Dr. A. Meadows, London; Dr. Banks, Dublin; Dr. Tilbury Fox, London; Mr. J. Manley, West Bromwich; Dr. Wallace, Liverpool; Mr. Augustus Churchill, London; Dr. Goddard Rogers, London; Mr. Fleischmann, Cheltenham; Dr. Ramsay, York; Dr. Waters, Chester; Dr. Gordon, Dublin; Mr. Benson Baker, London; Mr. Parker, London; Mr. Steele, Liverpool; The Medical Officers of University College Hospital; Mr. St. George Mivart, London; Dr. Eben Watson, Glasgow; Mr. Southam, Manchester; The Medical Officers of Charing Cross Hospital; Mr. Greenway, Plymouth; The President of the Royal College of Physicians; Mr. Walter Rigden, London; Mr. R. W. Parker, Berlin; Mr. Gaskoin, London; Dr. Lyons, Dublin; Dr. Petrie, Liverpool; etc.

THREE LECTURES

ON

THE PRINCIPLE OF LEAST ACTION IN NATURE,
ILLUSTRATED BY ANIMAL MECHANICS.*Delivered at the Royal Institution of Great Britain.*

BY THE

REV. SAMUEL HAUGHTON, M.D. Dubl., D.C.L. Oxon., F.R.S.,
Fellow of Trinity College, Dublin.

LECTURE III.—Tuesday, June 6th, 1871.

Application of the principle of Least Action to the Heart and other involuntary Muscles.—The Mechanism of the Heart explained, and the amount of work done by it.—“Experimentum crucis” of the entire Theory, derived from the measurements of the Fibres of the Heart of Man and the Ox.—General conclusions as to the future progress of Animal Mechanics and Comparative Anatomy, when subject to the Rule of Geometry, the Queen and Mistress of all the Sciences.

I HAVE reserved for my closing lecture to day the most wonderful and remarkable of all the examples I am able to give you of the application of the principle of least action to animal mechanics. It relates to a question which deeply interests every person in this room; it relates to the action of our hearts. It is my intention to endeavour to lay before you the work which is done by our hearts, and the manner in which those hearts do their work. The story of the heart is a most wonderful and mysterious story, and you must make allowance for the difficulty of the subject, and the defects of the lecturer, if I fail to convey perfectly to your minds all that is in my own mind respecting it. It is not easy to condense into one short hour the results of a labour of ten years. The progress of discovery is slow, and it is difficult to explain to those who have not been travelling in the same paths of research as myself, all the meaning and the bearings of the facts which I have to state; you will therefore, I hope, excuse me if occasionally you fail to see the connecting link that joins one part of my reasoning with another, and take for granted that if I had a longer time at my disposal, or more art in the mode of laying my materials before you, I could make you perfectly understand all that I know with regard to this subject.

We have first to consider the question of the amount of work which is done by our hearts. The heart is a small muscle weighing only a few ounces, and it beats perpetually day and night, summer and winter. Frequently an old man's heart approaching a hundred years of age will be found on examination as perfect a mechanism and as complete as it was when he was a young man of twenty. In order to measure the force and power of the human heart, the most obvious method that would suggest itself is one that is impossible to adopt, because it would require the death of the person on whom the experiment was made. We have experimented on the hearts of horses, oxen, sheep, dogs, and other animals. The first of these series of experiments were made by the celebrated Dr. Hales at the close of the last century: they consisted in measuring, by direct experiment with tubes, the amount of the hydrostatical pressure inside the cavities of the hearts of these animals. These experiments showed that the hydrostatical pressure inside the hearts of animals varies; in the horse and ox and larger animals amounting to a pressure of nine feet perpendicular of fluid blood, and in the smaller animals to somewhat less. From these experiments we can calculate without much difficulty the total amount of work which is done by the heart of a horse, the heart of an ox, the heart of a sheep, or the heart of a dog; but you will see it would be impossible to perform such an experiment upon our own hearts, because the experiment is necessarily accompanied with the death of the animal that is operated upon. We can calculate from these experiments also what I call the coefficient of capillary resistance. The heart pumps the blood through the large arteries of the body into the capillary vessels which permeate every tissue in our frames, and the great resistance to the action of the heart occurs in forcing the blood through these capillary vessels. I have placed before you here, as the result of direct experiment, the coefficient of capillary resistance of the sheep, $\frac{1}{18.6}$; the dog, $\frac{1}{19.6}$; the horse, $\frac{1}{39.3}$; the ox, $\frac{1}{39.3}$. You observe in the sheep and dog the coefficients are double what they are in the horse and ox. These

animals group themselves naturally together into the smaller animals with a double coefficient of resistance, and the larger animals with a single coefficient. Now with which of these groups of animals are we to associate ourselves in making a calculation as to the amount of work which is performed daily by our hearts? As I explained before, we cannot perform direct experiments upon the human subject; but an accident placed in my power the means of making a very close approximation to this remarkable result. When the artery of a horse or of a cow is cut, we can measure with ease the height to which the blood will spout into the air; and when the experiment is made, we are surprised at first to find that the artery does not spout to the height of nine feet. We can prove that there is an hydrostatical pressure inside the heart of the horse amounting to a nine feet column of blood, but when the artery is cut the blood will only spout to a height of two and a half feet, Nature making instinctively a spontaneous effort to shut off the pressure to save the animal from death by bleeding. If, therefore, we could by any process arrive at the precise height to which the blood would spout from our arteries if wounded, and compare them with the corresponding experiment in the sheep, the horse, and the ox, we should find which of these groups of animals man is most closely allied to with regard to the circulation of his blood.

On the 18th of March, in the year 1863, I witnessed an operation in the theatre of the Meath Hospital in Dublin, performed upon a poor man, in whom, from various circumstances, I felt an interest. I was merely a spectator at the operation, therefore I had leisure to witness a remarkable phenomenon, and to draw inferences from it, which I could not have done if I had been actively engaged. In the course of the operation, a large artery was cut in a very unusual place, and, therefore, some delay occurred in tying it. The blood spouted in jets from the wounded artery for a minute, or two minutes, before it could be tied. When the operation was over, I examined with care the height of the table on which the man lay. The floor, which had been recently cleaned, was covered with spurts of blood which had fallen from the wounded man, and, by the application of a little geometry to the problem, I was easily able to ascertain, by taking the height of the table and the farthest positions of the spots of blood on the floor, the velocity with which the blood issued from the wounded artery. The curve described by the blood is a parabola, and, given two points on the parabola, every geometer knows that we can construct the parabola and calculate the angle of elevation and the velocity with which the fluid is projected. As soon as I had made this calculation, I found that if I had cut the artery of a man, and allowed the blood to spout directly into the air, it would spout to the height of 2.58 feet. Taking the mean of all Dr. Hales's experiments upon horses, I find that 2.53 feet is the height to which the heart of a horse will spout. We now have a most important and valuable result. We cannot compare directly the hydrostatical pressure inside the human heart with the hydrostatical pressure inside the heart of an ox, or of a cow, or of a horse: but we can, by this determination of the velocity of spouting blood, show a close relationship between the circulation in our own frames and the circulation in these animals, and, therefore, we may apply with confidence the coefficient of resistance which we find in the horse and the ox to our own cases. When this coefficient of resistance is used in the case of man, and the calculation is completed, we find the hydrostatical pressure inside the human heart to amount to 9.923 feet of blood; and, by using the number of times the heart beats—seventy times each minute—and the quantity of blood projected from the heart at each contraction, we can calculate, by very simple and elementary processes, the work done in a given time by the human heart. Now this work I shall represent for you in a form extremely easy to remember—a form which will show you the extraordinary amount of work that is done. I shall suppose that I cut out an ounce of muscle from the heart, and that I ask myself this question, What number of pounds can that contracting muscle lift in the course of a minute? I find that the contracting muscle, a single ounce in weight, of the human heart, will lift 20.576 pounds through the height of one foot in a minute. This I believe to be a very close approximation to the power of the heart; but, inasmuch as it was not obtained by direct, but by indirect reasoning, I thought it desirable to proceed to verify it by another process; and, in the verification of this coefficient of muscular force of the heart by a second process, I made use of a very interesting phenomenon. This phenomenon was observed by the celebrated Dr. Wollaston, who wrote a paper upon it, which is published in the *Philosophical Transactions* for 1809. Dr. Wollaston was the first person who noticed that, when our muscles are contracted, they give out a deep musical note. If any of you wish to repeat the experiment for yourselves, and satisfy yourselves about it, I will inform you of the simplest modes of doing so. If you go into a room by yourself in perfect silence, place your elbows firmly on the table, and close your ears

lightly with the forefingers, clenching the muscles of the forearm, you will hear immediately a deep musical hum, which never can be confounded with any other sound you heard before. Dr. Wollaston compares it most accurately to the rumbling sound produced by the noise of cabs driving over the pavement in the silence of the night. Or if you awaken at night and clench your teeth so as to call the masseter muscles into action, you will hear with the ear that lies next the pillow, which acts as a sounding board, this deep hum, which you can destroy by ceasing to clench your teeth, and renew at pleasure. You can, therefore, very soon satisfy yourself that the act of contracting the muscles is accompanied by some phenomenon that takes place in rapid succession, comparable with the motions that produce a musical note. My attention was first directed to this curious subject in a remarkable way; and it so happened that a young physician of Marseilles in a similar way was attracted to the study of this curious phenomenon. Dr. Collongues of Marseilles had charge of the cholera hospital in that town; and he observed, in studying some of the cases which had died, a remarkable fact. Dr. Collongues in Marseilles, and myself in Dublin, pursued our studies each without knowing that the other was engaged in them. A patient in cholera has his temperature much lower than the natural heat of the blood, which is 98 deg.; and it is well known to physicians that in diseases like fever, if the blood-heat rise some seven or eight degrees above that, the patient will die. It is equally well known that in diseases like cholera, if the blood-heat fall more than seven or eight degrees below 98, the patient will die. Therefore it is a strange fact that, when you examine the body of a person who has died of cholera, when you put your hand upon the body, it is warm; the temperature, which was 90 deg. before death, rises after death to 103 or 104 deg., just as if the person were still living and in the height of a violent fever. This is accompanied also with spontaneous movements occasionally of the limbs, which cause great alarm to persons who are not acquainted with this curious fact. Happening accidentally to place my ear against the arm of a patient who had died of cholera, to my astonishment I heard the well known musical hum. I sprang to my feet, and at once placed my ear to the man's heart, thinking that he was alive, and that I might be able to save him; but he was dead. The heart had ceased to beat, but the muscles still continued to live. The heart has been called by ancient physiologists the first to live and the last to die—*primum vivens, ultimum moriens*; but that is not true in cases of cholera. After the heart has ceased to live, after the brain has ceased to act, when the man is dead, his muscles live; their temperature rises, and the last traces of life remain in the body like the lingering music of the chords of a harp which the master's hand has ceased to play. I resolved to try and ascertain the precise note of this musical hum. I constructed a number of organ-pipes, and succeeded, by processes that would be too long to describe to you here, in imprisoning the musical hum in one of these pipes, where I could afterwards measure it at my leisure and determine its character. I had an organ-pipe made accurately to vibrate the note two octaves below C in the bass, which corresponds with thirty-two double vibrations in a second. The note two octaves below D in the bass corresponds with thirty-six double vibrations in the second. Now a very little trial showed me that the musical note of a muscle lay between these two notes. By fixing a second organ-pipe as exactly as I could to the musical hum of my own muscles, and then comparing the notes of the two organ-pipes by their beats, I was enabled to ascertain with, I believe, a considerable degree of precision, the exact note of the musical tone produced by the contraction of the muscles. This I made to be thirty-five and one-third vibrations per second. Shortly after I published this result, Dr. Collongues, who had moved from Marseilles to Paris, sent me a book which he had published a short time before my own, in which he had succeeded in proving, by measurements made with tuning-forks, that the vibration corresponding to the hum of the muscular contraction is thirty-six. This very remarkable result, obtained by two totally different methods of experimenting—by myself in Dublin with organ-pipes, and by Dr. Collongues in Marseilles with tuning-forks—immediately attracted attention. Dr. Collongues naturally was very uneasy about the question of priority; and I took the opportunity of calling upon him in Paris to explain to him that I admitted his priority, and that I was more pleased to find that we had succeeded independently of each other in obtaining the same note, than if I had myself established a claim to have made the first discovery. At the close of our interview, which was very friendly, he embraced me. He had a long black beard, and I have a distinct recollection that it smelt very strongly of obacco.

My object in determining the musical note of a muscular contraction was to calculate by a second process a coefficient which would represent the amount of work that an ounce weight of muscle would be able to perform. The manner in which I conducted the experiments

was as follows. I held my arms horizontally, asking a friend to see that they neither rose above nor fell below the horizontal line. I held them in that position until I was completely tired; then I placed different weights on my arm in the same position, and I tried the experiment with many others. You will be astonished, if you try the experiment, how short a time you can hold out your arms perfectly horizontally. In this way, if I knew the rate at which muscular contraction takes place in the arms so held out, it was easy for a mathematician to calculate the amount of work done by each ounce of muscle engaged in holding up those arms. I had found that the musical note of the muscle vibrated thirty-five or thirty-six times in the second; and, having first got that fact, from the experiments made with holding weights in my extended arms, I was able to determine a second coefficient to be compared with the other which I had previously deduced from the hydrostatical pressure; viz., 20.576 lbs. This second coefficient came out exactly 20 lbs.; that is, the weight that can be lifted by an ounce of muscle of the heart through one foot in a single minute. This result I believe any experimenter on such subjects will admit to come in a reasonable degree close to that which I obtained from the hydrostatical pressure of the heart. I am, therefore, entitled to consider that somewhere about 20 lbs. can be lifted by every ounce of my heart in a single minute. But this conveys to your minds no adequate conception of the enormous amount of work which that represents. If I said 40 lbs. or 50 lbs. it would convey no impression to your minds; I therefore devised a plan for the purpose of showing you in this lecture how much you ought to wonder at the great work performed by the heart. I obtained from Mr. Robert Main in Oxford, and Mr. Maclaren, the celebrated trainer, the length of the Oxford and Cambridge boat-race course, and the cross-sections and plans of the Oxford eight-oared boat. The average time in which the race is rowed (it has been rowed twenty-one times in twenty-one years over the same course) is 23 minutes 3½ seconds, and the length of the course is 4.31 miles. From these data, and from the plans and sections of the boats kindly supplied by Mr. Maclaren, I was enabled, by using Professor Rankine's well-known formulæ for the resistance of ships, to determine the amount of work done by the muscles of the young men who pull in this hardly contested race. I find that during the twenty-three minutes the race lasts, every ounce of muscle in the arms and legs of the rowers works at the rate of 20.124 lbs. lifted through one foot each minute. This comes out to be very much like the amount of the work that my heart is doing at this moment; indeed, I am not sure that it is not doing more work than that now while I am lecturing. In the case of the young men who pull in this race for twenty-three minutes, every ounce of muscle in their arms and legs gives out a force that in a minute would lift 20 lbs. through a foot. If any of you have seen the exhausted condition of those young men when taken out of their boats after twenty-three minutes, you will, I think, agree with me that human nature could not endure such labour for forty minutes; yet the heart of an old man close upon a hundred years of age has worked for that hundred years of his life as hard as the muscles of the young men that pull in the Oxford and Cambridge eight-oared races.

[To be continued.]

A CHILD SERIOUSLY MUTILATED BY A YOUNG DOG.

ON the 22nd May, a fine healthy child, aged twelve months, was left in a cradle by his mother while she went out for an errand. On her return, she found the child being sadly worried by a young terrier dog, six months old, that had been left with him in the house. Upon examination, I found the genital organs much mutilated. The poor little fellow was pale, fretful, and exhausted from loss of blood. Fully one-third of the scrotum was bitten off; no trace of a testicle was left; the prepuce was stripped off, and the glans all but separated from the body of the penis; the urethra was also pierced in two or three places. The treatment consisted simply in the application of a piece of lint soaked in a compound of lead-solution with sweet oil, frequently renewed; under this, the wounds soon healed nicely. For the first few days, he experienced considerable difficulty in micturition, but at present the urine is passed easily and freely through the natural passage. He now begins to crawl about, and is as lively as ever. Should my unlucky little patient ever attain the age of puberty, it will be interesting then to watch the progress of the case.

It may be asked what became of the brutish whelp. Strange to relate, the father of the child felt most unwilling to do away with his favourite young dog; however, one day I pretended to be anxious to examine the dog's teeth, and upon his jaws being separated, I at once gave him the benefit of a few drops of Scheele's acid, which instantly had a very desirable and most soothing effect.

JOHN WILLIAM.

Pen-y-groes, Carnarvon, 8th June, 1871.

LECTURE ON NATIONAL HEALTH.

DELIVERED AT

The Royal College of Physicians of England.

BY

HENRY W. ACLAND, M.D., D.C.L., F.R.S.,

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II.—HOW THE FOUNDATIONS ARE SAPPED.*

SUCH being the general conception of the foundations of national health, it would at first seem to be an easy task to describe the causes which may sap them. It would be easy if we were dealing with a social *tabula rasa*. In an old country, however, growing with unprecedented rapidity on a limited area, the questions involved touch every point of political economy. Theories concerning population, religion, liberty, existing privileges, and natural rights, are to be met, accepted, or denied, at every point. Ignorance and prejudice have to be dealt with among honest persons; self-interest with the unpatriotic. The haste to be rich among the unwise, the intolerance among the cultivated of opinions counted narrow, and inadequate appreciation of the extent to which our world lies under law (binding even the seeming free agency of man), all check the progress of popular knowledge as to the foundation of national health. Take the single illustration of the effect of mills on streams. How long, after the effect of damp subsoil in injuring the health of the people has been proved, is it just to a population that one man should keep up mill-dams to such a height as to swell his profits by some small percentage, and destroy his neighbour's health, when other arrangements might, with little loss to him, at once abate the evil? It is an instance of a thousand. The mill-owner, it is true, would have claim to compensation for his prior rights, earlier occupancy, and interests hitherto permitted, nay, protected, by law. But the human race and every civilised community are essentially progressive; and no society ought to shrink from dealing with rights which have produced consequences essentially different from anything that could have been contemplated when they were allowed to grow up. One main duty of the present age of the world, and in this country urgent, is to strive to prepare for coming generations.

The foundations of the national health may be sapped in so many ways, that the catalogue is as long as it is dismal. Bad air, bad food, bad clothing, deficient fuel, too long hours at work, intemperance, all excesses, excessive exercise, excessive study, fanaticism, gluttony, idleness, late hours, intermarriage among unfit persons, depressing passions (as gambling, whether in hell or on the Stock Market), overcrowding and bad lodgings, bad dwellings or dwellings on unfit sites, all engender disease and deteriorate the race. They produce struma, rickets, gout, hypochondriasis, and many other diseases, with consequent loss of power, imperfect work, moroseness, and misery to others besides those affected, in an ever expanding circle.

Again, bad water produces not only actual *fatal* disease in individuals, but, short of that, as was stated at length and with much acuteness long since by Hippocrates (in his treatise on *Air, Water, and Places*), engenders continuous feeble health, when acting either with or without the other causes above-named. These various mischief-bringing elements in the "pangenetic" structure of society may act either on a single person or on the masses. Some act on the poor, some on the rich, some equally on both. Time forbids me to analyse or extend the list, and show the precise way in which each member of the ghastly catalogue acts on the human constitution. I will only add one instance formerly quoted by me elsewhere. A girl, having been seduced, entered a workhouse. A female child was born. She was brought up in the union, and was there at school till nearly of age. She went out, straightway became first a prostitute, then syphilitic; returned to the workhouse, and brought forth a syphilitic infant, to be reared, like her mother, with difficulty. There she lives in misery, and may perhaps repeat the dismal tragedy of her grandparent and of her parent, at the cost of the nation.

But are we sure that the needless waste of the higher kind of life is not in other ways as reckless and as pitiful? I do not speak of death

by war or by avoidable accidents, of mad races against time by sea, or of wholly unnecessary speed by rail, though these imply mischievous wear and tear to individuals and to classes of men; but I allude to useless wear and tear of health imposed on public men, and the waste thereby of power valuable to the nation.

For instance, the House of Commons contains within it the picked executive of a free people, who have deliberately selected them from the whole nation for the decision of the greatest problems of the national life. Yet custom will allow that Ministers thus carefully selected for their special aptitude to do the finest work, are often occupied more than half the night on formal and unimportant discussions. Thus the real work of their office is done under unnecessary pressure, such as none but the most robust can bear, and their health fails perhaps at the moment of their highest administrative perfection.

Again—the buildings which public men occupy are often far less calculated for maintaining health than they might be; and, trifling as may seem the remark, it is to be doubted if they can always obtain with readiness food suited to the necessity of exhausted nerve-power. There can be no doubt that actual illnesses are often brought on from these two avoidable causes.

We cannot, however, now consider all the ways in which the habits or pressure of civilised life needlessly tend to waste the force, and crush the physical elasticity of the people. Instances of various kinds will occur to every mind. Let these, from the extremes of the social scale, suffice for illustration. Rather let us here seek, if means of prevention may be found such as will pervade the whole framework of the national life.

III.—HOW THE FOUNDATIONS ARE STRENGTHENED.

If the foundations of national health be of the kind we have stated, and the causes which may sap them so general, so diverse, and so engrained in the nature of things, then the principles which have to guide mankind in maintaining the physical stability of nations cannot be less fundamental and extensive. Now, we must not conceal from ourselves the fact that, if we except some eastern and some barbarian races, the whole history of mankind tells of two conditions—progress and decay. National hibernation is, in a low state of national life, perhaps possible; but the awakening is generally by the rude shock of a destroyer, who lives on the ashes of a race which he came professing to revive. In four short years, a whole tribe of North American Indians has died out under the advance of civilisation. There is nothing in history more solemn than this flowing and ebbing of nations. It were blindness not to see that civilised people, in the surging to and fro of modern material life, are bursting the barriers of all former experience. So entirely are the telegraph and facile transport modifying opinions, equalising the knowledge of distant states, and welding it into one world-wide public opinion, that the problems presented to the modern statesman are almost as new as when Roman law was being consolidated.

History would seem to teach that, as long as love of conquest follows possession of power, and as long as the human frame consists of an intricate combination of tender organic tissue, so long physical changes may be expected from violent political movement; and waves of disease, whether cholera, syphilis, small-pox, black death, fever, or the diseases that follow famine, may sweep over the denser masses of mankind. One can neither contemplate without admiration the order of great modern cities, nor look without anxiety on their danger. How instructive—materially, morally, intellectually—is now the great drama of Western Europe, in which almost every virtue and every crime has been flashed before our eyes, as though to show how unstable still is the fabric of society.

There are four classes of persons who have the physical conditions of the nation more or less in their power: first, the lawgivers; second, the physicians; third, the ministers of religion and teachers; fourth, the people.

The lawgivers in a free country are almost limited to legalising public opinion, but may promote a wide or a narrow conception of the State, according to the type of their own convictions. The physicians are the guardians of public health, bound as much to prevent as to cure disease. The ministers of religion and teachers are the instructors of the people, either knowing or not knowing what conduces to national health. The masses of the people modify their own conditions by good or bad habits, physical, moral, and intellectual.

It is certainly not too much to say that, before the present century, public opinion—as depending upon people, ministers of religion and teachers, physicians and lawgivers—was, as far as regards the public health, entirely below the necessities of mankind. This is at once proved by the alterations which we now know may be made to take place in the death-rate of armies and of towns by proper sanitary regulations, or the neglect of them. The question suggests itself—How the

* Concluded from page 608 of last number.

public opinion on this matter is to be raised to the best attainable standard? The modern answer is, By Education.

But education itself must have a definite aim, and be based on an intelligent conception of the end to be attained, and the means of attaining it, whether they be physical, moral, intellectual. One cannot contemplate without astonishment the spectacle of the three hundred millions of Chinese—a third of the human race—who have cohered, almost unaltered for some thousands of years, with the stability of the crystal, without the growth of a living organisation. Compulsory education of a low kind seems to have effected this.* Education by a stereotyped method, necessarily produces similar results in successive generations. In this western world we have seen feudal rule gradually giving way to self-regulation by the people; obedience to self-government; empiricism to positive science; and hypothesis to knowledge of facts. Some would say, superstition is being replaced by reason, emotion and instinct by intellect, moral self-discipline by scientific knowledge. Be this as it may, the conviction is gaining every day more strength, that, however true it may be that, as has been advanced above, the mind has influence over the body, it is as true that national health cannot be fully secured without strict attention to the material conditions in which the people are placed. This consideration has of late years occupied the attention of our statesman. Regulations affecting trades, workshops, mines, shipping, dwelling-houses, have within twenty-five years reached such dimensions as to have a literature of their own. We have not, therefore, so much to discuss the necessity of this attention, as the principles on which, in immensely widening circumstances, it should be directed into practical results. Those principles mainly rest on the following considerations:—

That no individual should for his own profit poison his neighbour;

That the State must, in certain things essential for health, assist the masses in what they cannot assist themselves;

That the cost of permanent sanitary improvements should be borne in some reasonable proportion by posterity;

That compulsion of the ignorant in sanitary matters, when their ignorance injures society, is justifiable;

That compulsion will, we hope, be unnecessary when scientific education is adequately extended;

That good conduct, based either on knowledge or on obedience, is as essential to health, as is any physical arrangement which is not an actual necessary of life;

That in the present state of the world, mischief-bringing ignorance in sanitary questions is especially inexcusable in the law-making classes;

That local government by the people, well informed by a central authority, is essential to the physical education of the nation.

For the practical working out of these principles, legislators have to devise education worthy the name. Education depends on very complex questions, affecting the whole nature of man and the very structure of society. It is now thoroughly understood that the emotions, the will, and the mere action of the reason, affect not only individual organs, but the whole frame and the general health. Not only may individuals, if ill-educated, become virtually of unsound mind, but so may whole masses of people.

There is a "glory in the determined will" which produces vigorous bodily as well as vigorous mental action. You see it in the contour of the man. A perfectly trained nation, morally, intellectually, and physically, will act in its sphere as an individual so trained. It will respect and be respected.

We have seen in the dancing mania of the fourteenth century the extent to which, in a superstitious age, masses may be moved to *emotional* madness. Is it certain that, unconsciously to themselves, there may not sweep over nations equally contagious *intellectual* errors depending upon faulty morality? It is mainly a question for the psychologist and statesman, but it is also a question for the thinker on public health—what manner of life in the several classes of men and women, what labour, what recreation, what personal habit of body, conduces most to that tone of the nervous system, which puts the nerve-power of each man at the best for the discharge of his duty as a citizen. The worn-out man, the speculator, the vicious man, and, still more, masses of such men, become, from physical causes, intellectually and morally unfit to form a sound public opinion.

Now, a people is educationally affected by indirect, nearly as much as by direct means. Take a single and minor instance—the indirect educational effect of music on the children of a rural district. Music, like other things, is of two kinds—bad and good. It may be a source of foulness, disorder, degradation, impiety—even the Christmas carol—

* There is no stranger chapter in statecraft than the history and practice of the competitive examinations in China. Sir Bartle Frere was so kind as to direct me to a photographic account of this in *Social Life of the Chinese*, by Justus Doolittle, vol. ii. New York; 1865.

may lead to the public-house, to folly, and to drunkenness; or it may, in Wordsworth's words, though rude in its kind, be

"A true revival of the light
Which nature and these rustic powers
In simple childhood, spread through ours."

We know how, through ballads and songs such as the "Wacht am Rhein", vigour is thrown into the hearts of a nation. So, also, pure and good music is a sure and powerful instrument for refinement when superadded to other intellectual attainment. In one aspect it is purely sensuous, and may, as with some refined Tyrolean singer, be pursued as a dexterous art or accomplishment. But even as *art* it may not be undervalued. It excites feelings of the warmest sympathy and admiration to hear the attained results of Leslie's Choir, or such societies as now exist in many of our towns, where persons of every class and occupation show an advanced mastery and appreciation of the choice works of Handel, Mozart, Beethoven, Mendelssohn, and acquire a pure culture unalloyed by eating or drinking, or other frivolous ways; culture, moreover, not of a light kind, but one which ensures the development of certain mental qualities of accuracy, attention, precision, and refinement, which may be equalled but not surpassed by the exercise of other of our faculties.

The right care of the body is, therefore, such a management of the instrument by whose agency mental actions are alone possible here, as that the body shall obey the inner spirit in its higher impulses. To this all philosophy tends, whether expressed by the conceptions of the "Republic" of Plato, the "Utopia" of More, or the "Atlantis" of Bacon. For this, the Apostle of the Gentiles taught the duty of "keeping the body in subjection"; this was the aim of the mistaken self-tortures of the astonishing Ascetics of Alexandria; of the yearnings of Comte, the manly teaching of the great English Physiological Text-Book; of the labour of all labourers for public health, of Chadwick, of Southwood Smith, Shaftesbury, Farr, Rumsey, both the Trevelyan, Mathew. These all seek, in bettering the conditions of the body, to give free play to the divine element that is in the mind of men. We must not let ourselves be diverted from our great practical aim by the fascination of philosophic inquiry into the causes of things. What is the past history of man as compared with the well-doing of the present, for the sake, not of ourselves alone, but of those that are yet to come? What avail to us the virtues of feudal days, if we neglect to cultivate their virtues in our own? Were the Crusades, indeed, a worthier end for man than the redeeming from destruction the bodies and the souls of the struggling millions of Ireland or London? Was there ever a nobler task for the energy of noble or prince than the harmonising relief by law with willing relief from the charitable heart? than discussions on the terrible question now before the nation, whether it is best for the moral and physical health of the people that the law of Elizabeth should continue, though it annually cost nearly seven millions annually to maintain it; or whether it is best, with Chalmers, to throw on the voluntary alms of the rich the care of the poor? Do we concede the moral obligation of maintenance assumed by Elizabeth, and refuse to carry it into effect by law? or shall we divide the healthy from the sick, and grant to the sick what we withhold from the sound? If so, do we reasonably protect the sound from becoming sick, when we leave them unaided in matters in which they cannot aid themselves?

Or, again: Germany, and now England, have practically decided that their millions ought to be compulsorily educated—*i.e.*, that their *minds* shall be disciplined. Have they yet concluded that, on the same broad principle, the body shall be cared for in all essentials for health, so as to give to the school a reasonable chance of doing its work? Take the case of the three essentials of life—Food, Air, Water (clothing, habitations, fuel, and work, being minor necessities, depending chiefly on the exigencies of climate, may be omitted). Is there yet a country which systematically punishes a man for wilfully or negligently poisoning another's food, air, and water, as well as for stealing his brushwood, turnips, or wild fowl? But all old countries are being forced again to consider what are the elementary conditions of life, and are revising from various points the methods of adjusting them to the necessities of complicated civilisation; drawing lessons from all past experience, from the village communities of India to the land tenures of Scandinavia (see *Village Communities in the East and the West*, by Henry Sumner

* Almost all the practical thinkers in this country seem to look at the relation of relief, whether legal or voluntary, to labour, as a most urgent question. Notwithstanding the wise labours of Lord Derby, Sir Charles Trevelyan, Mr. G. M. Hicks, with a host of coadjutors, we must despair of any permanent work in this direction, until the Ministry of Health and Relief has been established, as the pivot for combined operation. Sir Charles Trevelyan truly writes:—"I am convinced more strongly than ever that there is no single specific for London pauperism, and that if our metropolitan population is ever to be restored to an industrious, provident, independent character, it must be by a whole cycle of measures directed against all the influences which have reduced it to its present state." This remark equally applies to national health.

Maine, 1871), and applying them to the new and yet undeveloped conditions in which we find ourselves placed.

So, when we come to consider what is to be reasonably required of the Legislature under the circumstances which have been now stated, it would seem as though we had to describe what should be the whole internal economy of the State.

There is scarce a department of the State which is not connected with the public health. Wherever there is army or marine, school or factory, workshop or prison; wherever a town, a village, or a hospital—there the State has to decide in what particulars the employer or the worker under him, the landlord or the tenant, the owner or the occupier, the vendor or the purchaser, the manufacturer or the consumer, shall lose his free agency, and be forced to subject his will to that of the majority in the State. Legislation has been steadily progressive, though the progress in this country has been made under needless difficulty, and at unjustifiable expense. Local acts for every conceivable purpose, voluntary associations for innumerable ends, have, after much agitation and labour, obtained remedies for evils, some of which ought not to have existed at all; some which, existing lawfully, ought, on due compensation, to be abated. The authorities who should abate them are numerous, and often conflicting.

Much time was lost in the period from Howard to Shaftesbury, and from Pringle to Sidney Herbert. The laws, the arts, and the sciences on which the preservation of health depend, are growing up under the eyes of the present generation. If we are living on the verge of an epoch of great social difficulty, we are also living at a moment when there was never so great knowledge, never so bright a light, and never more patient desire in every class to set aside injustice, and discover the means by which opportunity may be given to the capable and industrious, help to the weak, and knowledge to the ignorant. Whoever has had experience of the public work of the country, must know that the offices of our Government, concerned in these questions, have the hearty services of men whose labours and characters should be no less our admiration than our example. To omit to say this much would be unworthy and ungrateful; to name the persons would not become me. What, then, remains to be done? Two things, and two only: First, to continue to interest, intelligently, the mass of the people in sanitary progress, and to interest them more systematically: Second, to establish such a health department in the metropolis, as shall with certainty appreciate the growing wants of the people, as shall bring in Bills to meet their wants, and shall disseminate information and advice without stint to every part of the country.

England must rule herself in this as in all other matters. The time is gone when people can be dragooned into cleanliness and virtue. We hear that the middle class of England is inefficient, the guardians of the poor bad, and the working classes ignorant. If so, still they are the people; they and their children pay the penalty of disease and of vice. Show them, truly and without exaggeration, the source of avoidable disease and of destructive vice—they will abate it. Bring the knowledge to their doors—they have the heart and will; give the power by enactment, and the work is done.

Jeremy Bentham saw clearly the necessity of a Health Minister. The "talents specially required of him and his various subordinates" were to be—Medical Art and Science in all its branches; Chemical Art and Science, all its branches; Mechanical Art and Science, various branches; Natural History, most of its branches; Geography, in so far as regards climate and temperature, of countries which members of the community may have occasion to visit, either for war or trade (*Jeremy Bentham's Works*, by Bowring, vol. ix, p. 273).

To him were to belong (*Ibid.*, p. 443) all duties with respect to the medical functionaries serving under the *Indigence Relief Minister*; to the regulation of hospitals, lazarettos, and public laboratories; the medical inspection of prisons, madhouses, edifices belonging to the service of the Indigence Minister, and the Education Minister; of all "shops and storehouses, in which drugs designed to be employed for medical purposes are kept for sale, or otherwise for distribution; more particularly with reference to the precautionary arrangements directed to be observed by the *Preventive Minister* relating to the sale of poisons"; so, also, as to the contents of all shops for surgical purposes, and "all medicines and drugs designed to be employed for medical purposes", and to be conveyed to the army service, navy service, or the Indigence Relief Hospital Service.

He was also to see to the water-supply of towns, and to have "consideration of their extent and the density of their population", including the "quantity, quality, and proportionality of distribution." He was to have under review all such "situations as are liable to harbour or give rise to exhalations detrimental to health", such as "lands which, to whatsoever proprietors belonging, are habitually or occasionally covered with stagnant water"; mines, considered in respect of such

dangerous gases as they are liable to contain; common sewers and drains; theatres, and other similarly crowded places of entertainment, and places of interment; manufacturing establishments, as far as regards health. He will superintend the bills of mortality. He will report on mortality and diseases in the hospitals and establishments under the management of the army, navy, preventive service, indigence relief, and education ministers. Also, he will elicit and record "from the several different places, registers of the weather, in so far as habitually framed and preserved in the record establishments above-mentioned; also, from any other public sources from whence they may conveniently be procured, and from private sources, so far as procurable from those sources, with the free consent of the individuals interested." He is also to have "instructional" museums for showing the registrars' reports above referred to, and other objects. Moreover, the Health Minister is to be responsible for all examinations of aspirants "to those offices, the functions of which are exercises of the art of medicine in any of its several branches, and to whatsoever subject applied." To him "it will especially belong to be upon the watch against all injury to the health of the community, by the operation of particular interests in the breasts of medical practitioners at the expense of public interest; and, as occasion calls, to make report accordingly." To the result of the exercise of these functions, he is to give the utmost publicity that can be given consistently with a due regard to public economy and the feelings of persons subject to the exercise of his functions.

Since Bentham's time, the arrangements for the relief of the poor have become far more complete. A fashion now prevails among irresponsible persons of attacking this department of the State. The officials are hard, the laws are inefficient; or, on the other side, the officials are lax, and the laws breed pauperism. Instances are produced on each side. The fact is, the circumstance that every person in England is safe from starvation, is a safety-valve in the working of a machine under high pressure; and the ubiquity of the staff of the Poor-law, acquainted with every lodging of the poorest, gives in the present day an organisation which is unequalled. Time would fail, nor is it needful, to state in detail the value of this machinery, if we are in earnest to secure prevention, as well as cure, of disease. Invest the guardians of rural districts with adequate power, give them the requisite knowledge, appoint persons to the office with special qualifications, and trust them, on behalf of the people, to do all that can be done for maintaining the national health in their district. Keep the medical officers informed of all established knowledge bearing on health-functions; give them, in the eyes of their fellow-men, an honourable office; and a scientific and trained staff is at once to your hand in every corner of the nation. The arrangements for the great centres of population must be different. Special officers, still in connexion with the relief staff, must be retained, and relieved of all curative functions. Their number, and the conditions of their appointment, will vary with the wants of their district. They will be centres of all existing knowledge of preventive measures, and a means thereby of maintaining an interest in sound progressive scientific knowledge. They will, in this department, be as the parochial clergy of the middle ages, who were the local centres of the knowledge and culture of their day. In a Memorandum contained in the second volume of the Report of the Royal Sanitary Commission, which I cannot name without recording the debt which is due to the energy, skill, and patience of Sir Charles Adderley, its Chairman, is contained a sketch of the possible functions of such medical officers. They may seem to some excessive, and what once were called impractical; but it is not hard to foresee the value of them, and what pleasure the discharge of them would bring to the neighbourhood, as well as to a medical man of culture in rural districts. He also would know that his public work was appreciated, and, that being part of a great national system, it would never be wasted. It is non-appreciation and sense of wasted effort, as well as want of guidance, which has made many a youth entering life discard the culture and aspirations of his student days, and let down his tastes, and sometimes his habits, to the level of the most uncultivated of his neighbours. In considering the bearings of this subject, the medical profession has to remember, that however indebted the world has been in past time to it for a large portion of its physical science, the day of exclusive possession by any class of the Ark of natural knowledge is gone by. The medical practitioner will often find, and every year more and more, a worthy match in biology among the laymen and ministers of his district. These will be his coadjutors or his critics, just as his own attainments and habits may decide. The modern student of medicine has little to dread from the competition.

I would refer to the report of the Sanitary Commission for details as to the medical officers of health, and their official coadjutors, as well for discussions concerning the area over which they should act. The good working of the *local authorities* does not depend entirely upon their constitution. Bentham evidently relied on the *central authority* for

regulating and instructing the local executive. The Bill introduced by Mr. Göschen arrived at the same result. By Part VI and a few clauses in Part VIII of that Bill, the central authority was to consist of a Minister, who should preside over the public health, relief of the poor, and all local government connected therewith. The subjects now distributed through various offices, would be united under the direction of this Minister. It is a misfortune that, in consequence of being linked with the complex and difficult cognate question of incidence of local taxation, the clauses which would have made the strong central health-office were withdrawn with the fiscal portions. They were not necessarily connected. The executive, indeed, once remodelled, would have fresh powers to adjust further detail. It would be wholly premature, if it were becoming, here to inquire into the detailed construction of the office of the Health Minister. Suffice it that, when that portion of the Bill has passed, the prevention of disease and the promotion of national health will take equal rank with the first preservative functions of the State, and everything else connected with the office and its executive will fall into place.

The office will start with a staff connected with every spot in the country. The kind of complementary aid, and the extent of aid which the office may require, will be quickly discovered, and all that is valuable in the functions described in Bentham's crabbed system will be performed. In connection with these functions it may not be out of place to quote from the memorandum of the Sanitary Commission the following details.

Under the minister there would be subdepartments for—

"a. Law of local government; b. Engineering; c. Registration and statistics; d. Relief of poor; e. Medical care of public health and poor; f. Legislation bearing on the profession of medicine.

"III. A body of inspectors attached to the Health Office. These are to be of two kinds, as at present, with a third body of consulting experts. 1st. General inspectors attached to, and generally residing in the 'registration divisions', 'Poor-law districts', or (as they will also be) 'public health areas'; 2nd. Special inspectors; viz., legal, engineering, scientific, and medical; 3rd. Special experts, whose names should be attached to the office, and who should advise professionally on special points for special fees, such persons to be appointed for five years and re-eligible; 4th. Then will be required local clerks of unions, and of town councils, local surveyors under local boards and unions, local public health (medical) officers of local boards, unions, parishes, subordinate executive officers.

"No office now existing need be destroyed. Some will be amplified. A few more clerks will be required at the central office, and an arrangement made for obtaining special advice when needed, in aid of the permanent staff of the office, and of the inspectors.

"The advantages are many. Not only will the plan be efficient and complete, but it will be economical. The work of the local government, law, and engineering departments, of the Registrar-General, of the Poor-law Board, of the medical adviser of the Privy Council, will be harmonised, and will never be chargeable either with unnecessary repetitions or with omission, as at present. So also, neither money nor skill will be wasted.

"All reports bearing on public health will be connected one with the other, mutually illustrating each other. They will cover the whole ground of the science of prevention of disease, which has become both so important and serious for the well-being of old and densely peopled countries. The connection of the office of the Minister of Health with the medical profession, 4000 members of which would be in direct relation to him, would in itself be beneficial to the whole country. It would disseminate established scientific knowledge uniformly through the country districts, affecting not the medical man only, but the clergy and the schools, doing in that way alone as much at least as direct legislation for the same purpose could do. It would bring to light in every corner all that could be advanced as bearing on the physical condition of the masses of the people, while all crude theories or impracticable plans would instantly fade before the experience of the central office.

"The publications of the statistical department would exhibit what could be shown of the progress of sickness. They might give also useful deductions from local meteorological and scientific observations, in connection with those of Kew, the Government Meteorological Office, the Meteorological Society of Scotland, and such private enterprises as those of Mr. George Symonds on rainfall. They would furnish data for sanitary maps, which can only be of any worth when carefully constructed on rigorous local knowledge; and they would in time get rid of the fallacious application of conclusions deduced from averages, and erroneously applied to particular places or instances. In this way the real causes of variation in death-rate would be more surely ascertained than at present.

"Great encouragement should be given to the local public health officers to send in any observations which would promote the progress of accurate knowledge.

"The British public health reports thus constructed, printed in an uniform 8vo. form, stitched in five parts (legal, statistical, engineering, medical—including medico-legal—and general papers of inspectors), would be a series of great value. The central office should immediately on the first issue of the collected series make arrangement for regular interchange with all foreign countries of similar reports, according to the established usages of academies. These documents should be accessible for reference in the public health library of the minister, to all persons connected with the department.

"Public health laboratories should be maintained or aided by grants from time to time. In them not only points bearing on the general pathology of man and animals, would be from time to time investigated under the best guidance, but persons would be trained to be thoroughly qualified in all medico-legal questions. Hereby some of the scandal of *ex parte* scientific witnesses might be checked or removed. Such laboratories should be aided or maintained as well in the metropolis as in some of the great towns where scientific institutions and medical schools exist; e.g., Oxford, Cambridge, Birmingham, Leeds, Newcastle, Bristol. These centres are conveniently situated for various sections of the kingdom. From the state-aided laboratories the inspectors would obtain analyses of waters, or, in disputed cases, of any substances requiring examination."

The following passage also demands special consideration.

"In giving a judgment on the question of State organisation relative to public health, much of the general tenor of modern legislation with respect to our internal economy should be present to the mind. It must, therefore, be remembered that those who will be responsible for local sanitary administration will have collectively, if not individually, to administer Acts bearing on the following subjects:

"10. 1. Plans bearing on sanitary engineering or on local government; i.e., drainage, sewerage, water-supply, baths and washhouses, nuisances, offensive trades, smoke, public places of recreation, streets and roads, buildings, cellars, and lodgings, burial-grounds, mortuaries, appointments of officers, artisans' dwellings, labourers' dwellings.

"2. Care of personal health and safety; i.e., health in factories and workshops, mines, bakehouses, dangerous occupations.

"3. Regulations of quality of food; i.e., adulterations, markets, diseased cattle, slaughter-houses.

"4. Medical; i.e., prevention of disease, epidemics, endemics, syphilitic disease, small-pox (vaccination), quarantine, lunacy, hospitals, whether, first, rate-supported, such as workhouse-hospitals, or hospitals under local boards; or secondly, voluntary, whether general or special; endowed or subscriptional, county or small village hospitals, or hospitals for the insane, and prisons, sale and adulteration of drugs, poisons, supervision of reports of officers of health.

"5. To which must be added medico-legal arbitrations."

An important step has been recently taken by Dr. Stokes, the Regius Professor of Medicine in Dublin, and his colleagues. They have instituted an examination with the view of granting a diploma in the subjects bearing on national health, or, as it is sometimes called, State Medicine. This examination, of which full particulars are given at the end of the present essay, will comprise certain parts of law, engineering, pathology, vital and sanitary statistics, chemistry, meteorology, and medical jurisprudence. That such opportunity of systematically learning what is essential to the maintenance of the national health should be now given by Trinity College, Dublin, does great honour to that enlightened body. It is to be hoped that, ere long, a learned compendium of the required knowledge will issue from the Irish press. Any one who has studied this subject knows that in consequence of the labours of Parkes(a), Simon(b), Farr(c), Seaton(d), Glen(e), Rumsey(f), Rawlinson(g), Stewart(h), Tom Taylor(i), A. S. Taylor(j), Christison, Miss Nightingale(k), the London, Liverpool, and Glasgow medical

a Parkes, E. A., "A Manual of Practical Hygiene, prepared especially for use in the Medical Service of the Army." 3rd edit. (London, 1869.)

b Simon, J., "Reports of the Medical Officer of the Privy Council. 1858-70."

c Farr, W., "Yearly Reports" in Registrar-General's Reports.

d Seaton, E. C., "A Handbook of Vaccination." (London, 1868.)

e Glen, W. C., "The Law Relating to the Public Health and Local Government in Relation to Sanitary and other Matters." 5th edit. (London, 1869.)

f Rumsey, H. W., "On State Medicine in Great Britain and Ireland." (London, 1867.)

g Rawlinson, R., Various Government Reports.

h Stewart, Dr. A. P., and E. Jenkins. "The Medical and Legal Aspects of Sanitary Reform."

i Taylor, Tom, Various Government Reports.

j Taylor, A. S., "Principles and Practice of Medical Jurisprudence." (London, 1865.)

k Nightingale, Florence, various Sanitary Works, especially India.

officers of health, and in other countries, Quetelet(*l*), Pettenkofer(*m*), Michel Lévy(*n*), Hammond(*o*), Bowditch and Derby(*p*), and other persons, there has been amassed so much valuable matter, that the time is come when selection and abridgment are indispensable for the guidance of the student.

I must apologise for the length to which these simple thoughts have led me. They are uttered now because the time is certainly come when we must all endeavour, in our yearnings for the material improvement of our people, thoroughly to comprehend the fundamental and combined laws of physiological and social science on which our nature rests. Their complexity depends chiefly on the mutual action or reaction of matter and of mind in individuals, together with some superadded perturbation of civilised life, from which the savage is exempt. (See Ruggles, *op. cit.*, Letter I). The laws of our material nature are as absolute as those of the unreasoning brutes. But, in some particulars, they are entirely subject to our will, which is not the case with any other creatures. It cannot be said, indeed, of the past life of the human race,—

"Old age and experience, hand in hand,
Lead it to death, and make it understand,
After a season so painful and so long,
That all our life we have been in the wrong ;"

but this nevertheless is true, that historical and political experience, combined with the intercommunication of ideas by telegraph, and of persons by steam, is changing the conception, the conditions, and future of humanity, whether for good or for evil, with wholly unprecedented rapidity; and this is so, not in one country, but surely and steadily through the whole world. It is quite certain that education, acting with political causes, will modify the structure of old countries. It is quite certain that education, if possible without due attention to the material conditions of the people, will add mental suffering to physical. The modifications in the material state of man will be happily effected, in proportion as they coincide with the laws of the universe, or run athwart them. Every attempted rebellion against their spiritual or material conditions will necessarily end in certain and deep disaster to the rebellious race. Our sanitary regulations must be based on a right comprehension of these laws; on a conviction that material advantages, though essential for man, are not all; that material comforts will not remedy the results of immorality; and that, widely devised sanitary arrangements, the attainment of which, even by compulsion, has not yet been achieved, would in all probability be spontaneously carried out by an educated, free, and God-fearing people.

RECOLLECTIONS OF THE MEDICAL SCHOOL OF BERLIN.

By H. ROSBOROUGH SWANZY, M.B. Dub.,

Surgeon to the National Eye and Ear Infirmary; Ophthalmic Surgeon to the Adelaide Hospital; formerly Assistant to the late Professor von Graefe, Berlin; etc.

III.

THE necropsies of all cases which die in the Charité are conducted at the Pathological Institution either by Virchow or by one of his two assistants. If the case have been one of more than ordinary interest, the physician or surgeon under whose care it has been is usually present with his class to see the diagnosis confirmed, or the reverse. The examination is made with a view to the greatest accuracy and in a most methodical way; the different organs being investigated in the same rotation in every instance, and their appearances dictated to a junior assistant and noted down by him in a book kept for the purpose. Those viscera or other parts which demand a microscopical examination are laid aside. Once a week Virchow performs a necropsy, for the purpose of demonstrating his mode of making these all-important examinations, and on these occasions it is indeed a sight well worth seeing. The elegance with which Virchow makes a *post mortem* examination is not excelled by any other operative proceeding with which the writer is acquainted. His clearness in bringing out all the important points, his accuracy of language and powers of description, mingled with gleams of brilliant wit and sarcasm, all tend to make the *séance* most charming and instructive. Virchow delivers three courses. One of these is

l Quetelet, A., "Physique sociale, ou essai sur le développement des facultés de l'homme." 2 vols. (Bruxelles, 1869.) "Anthropométrie ou mesure des différentes facultés de l'homme." (Bruxelles, 1870.)

m Pettenkofer, M., "Die Cholera und die Bodenbeschaffenheit in der k.k. österreichischen Provinz Krain." (München, 1861.)

n Michel Lévy, "Traité d'hygiène publique et privée." 5th edit. (Paris, 1869.)

o Hammond, W. A., "A Treatise on Hygiene, with special reference to the Military Service." (Philadelphia, 1863.)

p Bowditch and Derby, "Reports of the State Board of Health of Massachusetts." Many of these authors have contributed far more than is here named.

very celebrated, and is popularly known as the "Railway Course". It is that one to which the professor himself gives most attention, and which, for this and other reasons, is the most profitable to foreigners. Here all the interesting preparations which have been obtained in the *post mortem* room are brought under the more special notice of the student. The room in which the lectures are held is provided with a fixed table about two feet in width, running in a zigzag direction from one end of it to the other; on this a miniature railway is laid down for the conveyance of microscopes on little trucks from one part of the class to another. (I believe a somewhat similar arrangement to this exists at St. Bartholomew's Hospital). Virchow describes in their turn the microscopical appearances of the various diseased organs which may be on the table, and then sends round microscopical preparations for observation. The lecture, which lasts two hours, is listened to with breathless attention, and at its conclusion the lecturer is besieged by a number of his listeners, who desire to have certain points cleared up. To these the professor gives willing answers, provided only the inquiries be pertinent. There is no one more approachable than Virchow, and he has a wonderful power of divining what the difficulty experienced is, although the student himself may often find it not easy to convey what it is that he wants. At the second course the student chooses whatever specimen he wishes from those on the table; and, when he has made a microscopical section of it, and investigated it to the best of his ability, the professor comes round to him in turn and demonstrates any points concerning the object about which he may have doubts. With such a tutor this is a most profitable exercise, and it is only to be regretted that Virchow does not attend to it with more regularity. The third course is also very interesting, being usually devoted to the pathology of some one or two organs, which receive a thorough sifting from the professor.

As a member of Parliament, much of Virchow's time, during those years which I spent in Berlin, was occupied with politics; and often did he appear late in the lecture-room, with the excuse that he had just been delivering a speech in the house (for there they have only morning sittings) in defence of some fresh liberal principle. Besides being in the house, Virchow is a town councillor, and takes an active part in the hygienic arrangements of Berlin. He is also an accomplished archaeologist, and spends his vacations in investigating those ancient remains with which North Germany abounds. There is some hope that medical science will now have the benefit of more of his time than has of late years been the case, as, in consequence of the ascendancy which Bismarck and his party have gained through the late war, Virchow is said to have declared that he will retire from political life, seeing no hope for the Liberal cause in Prussia for years to come. We may then look forward to the completion of that wonderful book on tumours, and to the issuing of a new edition of his *Cellular Pathology*, which is much wanted and which has long been promised.

The pathological laboratory is intended for those who wish to attain a practical knowledge of microscopical pathology, or to make original investigations. Microscopes, reagents, etc., are supplied, and a place in the laboratory is allotted to each student, for which no charge is made. The opportunity is here given of still further pursuing the investigation of those specimens which have been first seen in the *post mortem* room, and then lectured upon by Virchow. Virchow himself and his assistants are ready to give any reasonable amount of aid to those studying in the laboratory, although as no fee is charged discretion on the part of the student in this respect is necessary. In each session the senior assistant delivers several courses, of six weeks' duration each, on microscopical histology, with practical demonstrations.

The laboratory for physiological chemistry is under the direction of Professor Virchow's special assistant for this purpose, the post being at present filled by Dr. Oscar Liebreich, whose name has been made famous by the discovery of chloral. Dr. Liebreich is most assiduous in his attention to all those who place themselves under him. The chemistry of all the tissues, secretions, and excretions, both normal and pathological, may be studied here most satisfactorily; and indeed I am not aware of any laboratory of the kind which affords similar advantages.

The physiological laboratory is in the University buildings. It is very much frequented in consequence of the splendid instruction afforded by Professor Rosenthal (coadjutor of Professor du Bois Reymond), and on account of his great amiability. The laboratory is provided with all the appliances for experimentation, as Professor Rosenthal pays special attention to this branch. I regret to say that Englishmen are rarely found among those studying in this laboratory, although most other nations are constantly represented. Whether this is to be accounted for by our countrymen taking less interest in this subject, or by their ignorance of the existence of such a place and its advantages, I cannot say. I feel assured, however, that if some of them would give Professor Rosenthal and the physiological laboratory a trial, they would highly

appreciate the place, and that it would before long become a favourite resort for study. A most accomplished teacher of microscopy is to be found in the assistant of this laboratory, Dr. Boll.

There is a branch of medicine which rarely forms part of the education of medical men, but of which they are still supposed to be masters; namely, psychiatric medicine. For this there are not only superior advantages in Berlin, but it is moreover a subject which can be pursued at few other schools. The late Griesinger it was who won so great a reputation for Berlin in this respect. He died about three years ago, and was succeeded by his assistant, Professor Westphal. There is a lunatic asylum in connection with the Charité, and a special department for nervous diseases (paralysis, chorea, epilepsy, etc.) The cloak of his predecessor seems to have fallen on Professor Westphal, for he maintains his department in all its former glory and efficiency. Here, too, an Englishman is rarely seen; and I can only repeat the opinion expressed with regard to the physiological laboratory, that the psychological department in Berlin need only be known and tried to be appreciated by our countrymen.

There are two medical societies in Berlin. The chief one is the Berlin Medical Society, which meets once a week in winter and once a fortnight in summer, for the discussion of every branch of medicine. It thus takes the place of our clinical, surgical, and pathological societies. Nearly all the medical men of Berlin belong to it, and many most valuable original papers are read at its meetings. The Society concerns itself also about medico-political matters, and has much weight with the Government and the Parliament. Von Graefe was the originator of this Society, and continued to be its President until his death.

The Physiological Society is the other medical society of Berlin. It contains few but junior members of the profession. It meets once a fortnight for the reading of original papers on physiological subjects, being the results of the investigations made by the assistants of the different professors, and by those working in the various laboratories above mentioned. In connection with this Society is a circulating library, containing however nothing but the medical periodicals of the day. Every Saturday a new batch of all the principal French, German, English, and Italian, medical periodicals are left at each subscriber's rooms in exchange for those of the former week; and thus no one can have an excuse for not being *au courant* with everything going on in the profession, in all its branches, and in every land. The subscription to this Society (including the circulating library) is only one *thaler* (3s.) per month.

In conclusion, I think Berlin and Vienna to be equally good for the study of clinical surgery, ophthalmic surgery (since the death of Von Graefe), physiology, and histology. I think that Berlin has the advantage in operative surgery, clinical medicine (since the death of Oppolzer), physiological chemistry, pathology, and psychiatric medicine; while Vienna excels in diseases of the skin, syphilis, laryngoscopy, and obstetric medicine.

MECHANICAL DISTORTIONS OF THE SPINE.

By FRED. CHURCHILL, M.B., F.R.C.S.,
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So much has been said and written upon the pathology and treatment of curvature of the spine by those who have devoted themselves to the study and relief of such deformities, that I feel diffident, with my limited experience, in making a further contribution to its etiology. Having recently met with a case of curvature of the spine dependent upon an inequality in the length of the lower extremities, and associated with a peculiar enlargement of the right patella, I was led to make a further inquiry into the relation of these two deformities the one to the other. In books on orthopædic surgery such an association has undoubtedly been recognised, but it appears to me that there has been a tendency, in the more recent works on this subject, to make such deformities dependent upon a cachexia, and thus to undervalue the effects of purely mechanical pressure in constrained positions as in many cases the approximate cause of such distortions. An authority on curvatures of the spine writes as follows:—"The causes of scoliosis are various. They are general and local debility, rickets, thoracic disease, obliquity of the pelvis, etc." (p. 34.) "Debility alone does not usually give rise to lateral curvature of the spine; but there must be superadded bad habits of standing or sitting which shall occasion obliquity of the pelvis and a primary lumbar curve. These habits to which I have alluded depend on debility however; and therefore it is right to speak of debility as the cause of these distortions." (p. 38.)

In the case now under consideration, a young man aged 20 was admitted into the surgical ward of St. Thomas's Hospital on account of

an osseous tumour developed in the right patella, with a remarkable elongation of the bones of the same leg without any apparent alteration in their general contour. The comparative measurements of the two limbs showed a difference of two and a half inches in the length of the two femora, and there was a corresponding difference in the length of the other bones, as will be seen by the table on next page. I have taken measurements of the right femur in young men of the same age, and find that the average length is seventeen inches, or two inches less than that of the case under consideration. The natural result of such inequality must be distortion either of the spine or of the pelvis. That the pelvis is not easily distorted, has been proved by the large number of cases of advanced lateral curvature of the spine, with considerable rotation of the bodies of the vertebræ, without any deformity of pelvis. Sir Charles Bell and others have shown that, independently of rickets or caries, the pelvis usually maintains its natural form. Where the distortion of the spine is mechanical, the primary curve is in the lumbar region, and corresponds to the tilting up of the pelvis on the affected side. The secondary curve in the dorsal region is for the purpose of restoring the balance of equilibrium and maintaining the centre of gravity as much as possible in the mesial plane. The peculiar construction of the spine and the arrangement of its processes, to secure great mobility of the whole with limited movement between individual vertebræ, renders it peculiarly liable to the effects of long continued unbalanced pressure. The bodies of the vertebræ being for the most part made up of cancellated structure, they more readily yield to the effects of pressure than bones having a larger proportion of the earthy constituents. Those are most prone to suffer from distortion of the spine, in whose osseous system generally there is a deficiency of phosphate of lime. Young children, especially girls, are very liable to deformities of the spine, from being too early put out to service, before their bones have become properly matured.

Such is the elasticity of the intervertebral cartilage, that an adult male of middle stature loses about an inch in height after having been in the erect posture for twelve hours. He will not regain that which has been lost until he has been in the recumbent posture for at least eight hours. If the trunk be inclined to one side, the intervertebral cartilages become compressed on that side, but on the opposite side the transverse processes of adjacent vertebræ are separated; so that, if this posture be maintained, the cartilages will become wedge-shaped, *i. e.*, thinned off towards the compressed side. Various trades are well known to originate such deformities, especially where there is a latent predisposition for the bones or cartilages to yield to the effect of unbalanced pressure.

The habitual use of a wooden leg frequently gives rise to distortion of the spine. The wooden leg being fixed and incapable of movement like that of an artificial leg, the gait of the person is altered to accommodate the body to the restricted movements of the limb and to maintain equilibrium during progression. For this purpose all the muscles on the sound side of the body are developed to an unusual extent, because it is from this side that the movements are principally made. In walking with a wooden leg, the person suddenly and momentarily throws the weight of his body on to the stump, and raising the sound limb carries the body forward, the wooden leg acting as a prop on which the body is for the time being supported. This undue amount of work given to one side of the body too often entails, sooner or later, compensating curvature of the spine.

In the same way, if the awkward habit which children sometimes have of supporting the body on one or other leg be constantly indulged in, the spine will become bent. The muscles on the opposite side, being less used, commence to atrophy, so that the relief to the child is greater as the habit is more indulged in; and the deformity will rapidly increase, unless early checked. Bedridden patients, especially those with disease of the hip, very frequently have deformity of the spine or contraction of the joints, from keeping the body in constrained positions.

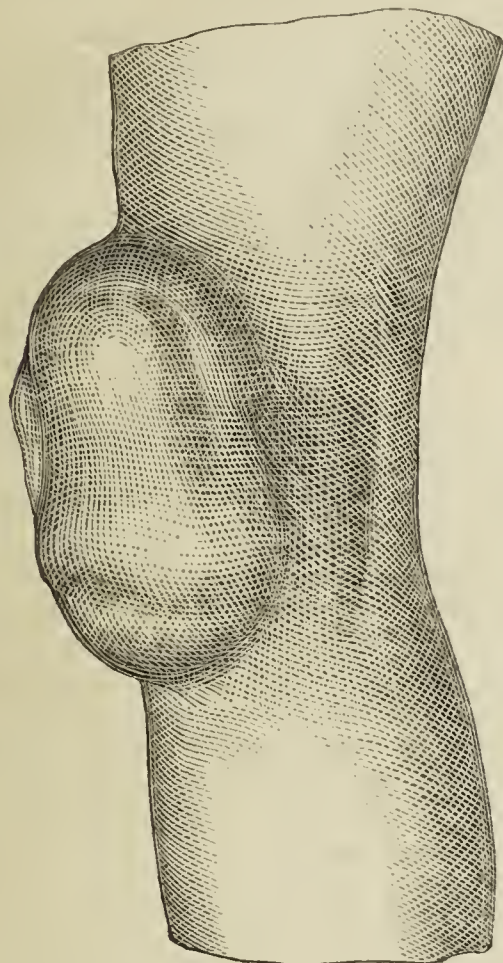
When the lateral halves of the body are unequally balanced, as in the loss of an arm by amputation, the shoulder of the arm which remains becomes elevated, whilst that on the opposite side is depressed; and a lateral curvature of the spine is the result.

The particulars of the case above referred to were as follows.

J. B., aged 20, a gold-beater by trade, of robust constitution, was admitted into the surgical ward of St. Thomas's Hospital for enlargement of the right patella and hypertrophy of the bones of the leg. At the age of five, he fell from a height of about nine feet on to the floor of a passage, but does not seem to have injured himself much; nor had he had any serious illness. In March 1857, or three years after the receipt of the above mentioned injury, he was admitted into Guy's Hospital. The right leg was then longer, and the patella distinctly larger, than the left; but there was no mention of curvature of the spine. He was again admitted in May 1858; and the proportionate difference in

size of all the bones was more marked; the pelvis was consequently tilted up on the right side. There was also slight temporary curvature of the spine; but on placing a firm body under the left foot, so as to raise it to the level of the right, the spine became perfectly erect. The right limb was two and a quarter inches longer than the left.

After a lapse of nine years, he was readmitted into Guy's Hospital (February 1867). He was then suffering much pain in the right hip and back, after having been employed as pressman in a printing-office, which occupation caused him to place undue pressure upon the



right leg, then $3\frac{1}{2}$ inches longer than the left. The patella was so increased in size that it projected laterally beyond the trochlear surfaces of the femur. The knee-joint itself was quite healthy. The transverse diameter of the patella was at this time $1\frac{3}{8}$ inches more than the left, the transverse surface-measurement being $3\frac{3}{8}$ inches in excess of that of the left. Mr. Stanley referred to some cases which had come under his observation in which the hypertrophic elongation seems to have been the result of inflammatory disease of the shaft. In this case, the growth appears to have been slow, and entirely free from pain or constitutional disturbance. From 1858 to 1867, a period of nine years, the increase in length of the right femur over that of the left was only half an inch.

In January 1869, the measurements were as follows.

Vertebra prominens to floor ...	...	...	...	55 $\frac{1}{4}$ in.
Greatest distance of spine from mesial line, both feet on the ground ...	...	...	...	1 $\frac{1}{4}$
		Right.	Left.	
Great trochanter to end of fibula ...	...	35 $\frac{1}{4}$ in.	32 in.	
Femur to edge of external condyle ...	...	19	16 $\frac{1}{2}$	
Fibula ...	...	15 $\frac{3}{4}$	14 $\frac{3}{4}$	
Patella, transverse measurement ...	...	6 $\frac{3}{4}$	2 $\frac{1}{2}$	
„ callipers measurement ...	...	3 $\frac{1}{2}$	2 $\frac{1}{4}$	

A point of considerable interest in the case was the peculiar enlargement of the right patella. Was it an hypertrophy, or an exostosis? If from excess of growth, then it would probably be dependent upon the same cause as gave rise to the elongation of the other bones of the same leg—accelerated, perhaps, by the increased action of the quadriceps extensor cruris. Of all bones, the patella is least liable to hypertrophy, in consequence of its deficient blood-supply. The general appearance of the tumour would favour the opinion of its being an exostosis. The original shape of the bone was quite lost, being nodulated and very prominent on the right side. Mr. Erichsen and Mr.

Holmes are of opinion that hypertrophies of bone are exceedingly rare without a history of some previous inflammatory action. This lad had been under observation at different times for a number of years; but there was nothing which would lead me to suppose that there had been any inflammatory mischief, however slight, in the substance of the bones.

SOME NOTES ON NEURALGIA, AND ITS TREATMENT.

By J. SINCLAIR HOLDEN, M.D., F.G.S.,
Physician of Larne Union Hospital.

AMONG the secondary complications often attending neuralgia of the fifth nerve have been mentioned permanent tonic spasms, confined to the muscles to which the branches of that nerve are distributed. That a further reflex action may take place, implicating in tonic contractions the muscular system generally, the following case is an example.

Mrs. H., aged 35, a married lady with children, when a girl, had slight chorea. She was liable for several years to intermittent attacks of facial neuralgia, with gastric complication. Lately, after a period of fatigue and anxiety in tending a sick child, she got cold, which excited acute paroxysms of trigeminal neuralgia in the ophthalmic division; the pain was constant during the intervals. On the third day of the attack she felt stiffness of the right or affected side of the face, and painful rigidity of the fingers and toes, extending up the arms and legs during the intensity of the paroxysms. I was hurriedly sent for; the paroxysm had subsided, but she was much exhausted from pain and sleeplessness. I proceeded to inject subcutaneously a quarter of a grain of acetate of morphia and one-sixtieth of a grain of atropia; but so great was the exalted sensibility of her system that the entrance of the needle into the arm brought on a return of paroxysm so violent that most of the injection was lost. The right facial muscles were rigidly contracted; there was marked strabismus; the hands and feet, the arms and legs, of both sides were in a state of tonic spasm. A peculiar fixity of the mouth almost gave the alarming expression of “risus sardonicus”. She told me afterwards that the tongue felt cramped. Consciousness was not interfered with, and there was an agony of suffering. The breathing was so laboured and difficult that at one time I feared that the thoracic muscles were implicated, but this passed off. The quickest relief was found in hot-water stupes applied to the arms and legs. The attack lasted about ten minutes; then the rigidity slowly relaxed, leaving her greatly exhausted. An hour afterwards there was a return of all the spasms and sufferings. As speedily as I could procure it (my patient living six miles in the country) I administered 30 grains of hydrate of chloral, which gave her eight hours’ sleep. This dose was repeated the next day on the threatening of a return of the paroxysm, with the best result. On the third day she was quite free from every pain.

In the treatment of neuralgia, hypodermic injection of morphia has come into general use. Prudence suggests commencing with small doses. This is safe, certainly, and a test for idiosyncrasy where there is no known tolerance of the drug; but to rest there is not sufficient; frequent repetition will alleviate pain, though falling short of the real relief capable of attainment. Where the neuralgia is intermittent, I find that a rapid, and at the same time careful, increase of the dose often reaches a point where the hypodermic injection acts like a charm: this is proportionate generally to the severity of the pain.

In one case, that of a woman aged 50, with severe facial neuralgia, when the paroxysm comes on, she at once seeks for ease in the puncture. Though she is not habituated to morphia, I inject a grain and a half into the arm—a quantity equal to 18 minims of Dr. Anstie’s solution. After the injection she feels much nausea, and sleeps for several hours; she is rather stupid the following day, but the pain has fled. Before this dose was reached she had days of suffering, with frequent returns, and almost no benefit from injecting small quantities of morphia. Now, only a few hours can elapse before she has perfect ease, and no return of the paroxysms for two or three months.

Where the neuralgia is of long standing and pain is persistent, hypodermic injections seem only to be an addition, yet a valuable one, to other palliative remedies. If the patient be in the habit of using opiates, the injection is preferable from its quicker action and smaller dose, though there is often a difficulty in getting old habits changed to new ones, even when after a few trials the advantages of the injection have been admitted. However, in some cases the substitution is effected. A lady aged 55 had been a martyr to almost constant dorso-intercostal neuralgia for the last twenty years. She had consulted many physicians and tried many treatments; but, after all, settled down to morphia as her only panacea. She came under my care more than five years ago

suffering from dyspepsia, and was then taking daily a teaspoonful of solution of muriate of morphia. The hypodermic injection of morphia gave her so much relief that, though the dyspepsia soon left, she continued its daily use, I having instructed her servant how to introduce the syringe. The quantity of morphia injected was one-third of a grain; for a time this quantity was reduced, and one-sixtieth of a grain of atropia was substituted, but this had to be abandoned, owing to dryness of the throat supervening. After a trial of different localities, she has for the last five years preferred having the puncture in the calf of the leg. She prefers having it done in the morning before rising, and would feel great nausea if she did not take a cup of coffee first; half-an-hour after the operation she becomes intensely hungry, and then eats a good breakfast. By this means the neuralgia is kept in check, though she is conscious of its presence. No curative effect was produced by increasing the dose in this case.

In trigeminal neuralgia, where the periodicity of the pain is well marked, I can fully confirm the great value of quinine when given in doses of from three to six grains. I prefer administering it in a glass of sherry about an hour before the time when the pain is due, and seldom fail in cutting short the attack.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE XVII.—Monday, March 27th.

Sirenia.—These were formerly classed with *Cetacea*, on account of their habitually living in water and having some resemblance in form. They are, however, not carnivorous, as are the *Cetacea*, but herbivorous, grazing on seaweed. They mostly live in shallow water. They might be regarded as an aquatic modification of the *Ungulata*. The *Sirenia* are now represented by two genera—the *Manatus* or *Manatee*, and the *Halicore* or *Dugong*.

The Manatee is found on the coasts of the Atlantic Ocean. The West Indian Manatee frequents the northern coast of South America and the West Indian islands; and another species is found on the west coast of South America. In both upper and lower jaws, the front teeth are replaced in the adult animal by horny plates. In the very young Manatee, there are two very rudimentary incisor teeth in each jaw; but they become covered in. On each side there are, above as well as below, eleven well developed molars, which, however, are not all present at the same time, the anterior ones appearing before the posterior. They are all alike, except that in the young animal the anterior molars are the smaller. These teeth are formed on the same principle as the molars of the *Ungulata*. The upper teeth have an inner and two outer roots; the lower have two roots. The crowns are square and broad, and covered with enamel; they have two transverse ridges, each divided, as in the *Mastodon*, into points, which become worn down. In the lower jaw, especially at the posterior part, each tooth has a large heel behind, in addition to the transverse ridges. As far as is known, the Manatee has no milk-teeth; thus presenting the anomalous condition of being heterodont, and at the same time monophyodont and having more than the typical number of teeth.

The *Halicore* or *Dugong* inhabits the Indian Ocean from the Red Sea as far as the north coast of Australia. In the male animal, there are two nearly straight tusks in the upper jaw, projecting forwards. They have persistent pulps and a partial coating of enamel; in the latter respect, they resemble the incisors of *Rodents* rather than those of the *Elephant*. In the female *Dugong*, these teeth project very little if at all; they cease to grow, and the pulp-cavity becomes filled up with osteodentine. In the young *Dugong* there is also a small incisor on each side; but whether this is a milk-tooth or a deciduous incisor of the permanent series, is not certain. Beyond these teeth, the mouth as far as the molars is covered by a horny substance having some analogy to whale-bone. The surface of the lower jaw bends downwards and forwards, and presents on each side pits, which in the young *Dugong* are occupied by teeth—five on each side—about an inch long. These become covered up by the dense horny plate; but they can be found for many years. The horny plates are covered by strong tufts of bristles, forming a kind of rasp; and the tongue also is provided with some of these bristles. Their use is not certain, but they are probably employed in mastication. They consist of the papillæ of the mucous membrane, covered with thin epithelium, hardened, and welded together. There are five

simple molars above and five below on each side. The anterior one is cylindrical, and has a groove on each side, giving it the appearance of a double tooth. These teeth consist of dentine and cement, without any true enamel.

In the *Rhytina*, an extinct *Sirenian*, there were no teeth as far as is known; but the animal had well developed horny plates, marked with ridges.

The *Halitherium*, also extinct, presented a kind of transition to the *Ungulata*. There were rudimentary hind legs. The anterior molar teeth differed from the posterior; and the animal apparently had a succession of teeth.

Edentata.—Of these animals, some have teeth in the position of the incisors; one or two genera only have teeth in the back part of the præmaxilla. None of these have any enamel on the teeth. They are nearly all homodont and monophyodont. They are divided into the *Phyllophaga* or vegetable-feeders, represented by the *Sloths* and by the extinct *Megatherium*, *Mylodon*, etc.; and the *Entomophaga*, which feed on insects or carrion.

The Three-toed Sloth has on each side $\frac{5}{2}$ teeth, much resembling each other. The first one in the upper jaw is the smallest. The teeth are almost cylindrical, and are slightly fluted at the sides. The pulps are persistent. The upper surfaces of the teeth are at first rounded, but become cup-shaped by wear; this arises from the dentine being softer at the inner part than externally. There is apparently no succession of teeth.

The Two-toed Sloth has $\frac{5}{2}$ teeth, the first of which in each jaw becomes greatly developed, so as to resemble a canine, but differing from it in that the lower tooth passes behind the upper.

In some extinct Sloths, as the *Mylodon*, the teeth were formed on the same principle, but were a little more compressed. There was a curious modification in the *Megatherium*. The teeth had quadrilateral fluted crowns, having the grinding surface divided into two prominent ridges with sharp edges. Each tooth had a large pulp-cavity, around which was a layer of soft dentine, and beyond this a layer of ordinary dentine, covered in with soft cement, accumulated mostly behind and in front. The cement and soft dentine wore away, leaving the remaining part projecting in the form of two prominent ridges.

All the members of the genus *Armadillo* (*Dasypus*) have teeth. In the Six-banded *Armadillo* and an allied genus, alone among *Edentata*, there are teeth on the posterior part of the præmaxilla. The Six-banded *Armadillo* has nine or ten compressed cylindrical teeth on each side, with persistent pulps, and no enamel. As far as is known, this *Armadillo* does not change its teeth.

The Great *Armadillo* has a very large number of teeth, from seventy-five to one hundred, or even more in young animals. Of these teeth, the anterior ones are compressed, and the posterior cylindrical.

The Nine-banded *Armadillo* has a distinct set of milk-teeth, which remain until the animal is almost full grown. The permanent teeth are eight on each side; and all but one have predecessors: hence, though there is no distinction in appearance, they are described as seven præmolars and one molar. The permanent teeth are formed beneath the milk-teeth, which they push up, sometimes splitting them in the process. This is the only genus of *Edentata* in which a succession of teeth has been observed.

In the extinct *Glyptodon*, the teeth resembled those of the *Armadillo*, but were deeply fluted on each side by deep grooves. The teeth had also raised hard ridges on the surface, produced by the dentine wearing down and leaving the harder osteodentine projecting.

The *Manis* or *Pangolin* and the true Anteaters (*Myrmecophaga*) have no teeth. The *Manis* has two spicula of bone in front of the jaw.

In the *Orycteropus* or Cape Anteater, the number of teeth varies with age, being greatest in the young animal. The old animal has generally five on each side in each jaw; the last are the smallest. The second and third are rather large from before backwards, and are grooved. Each of these teeth contains a number of small pulp-cavities lying side by side, running from the base to the apex, with connate hexagonal tubules of dentine radiating from them. There is no enamel; the denticles are held together by a layer of cement on the outside.

Monotremata.—These have no true teeth. The *Echidna* has many processes on the palate and tongue. The *Ornithorhynchus* has a broad plate largely supplied with nerves. In the hinder part of the mouth, the bone is expanded above and below into oval plates, long from before backwards, corresponding somewhat to the rough plates in the *Dugong*. In the anterior part, above and below, are raised sharp ridges, slightly serrated in the young animal.

THE Hospital for Sick Children, Dyke Road, Brighton, will be publicly opened on the 28th instant.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN
THE HOSPITALS OF GREAT BRITAIN.

GREAT NORTHERN HOSPITAL.

UNSUCCESSFUL SKIN-GRAFTING FOR PROTRACTED ULCERATION OF A
BURN IN THE DORSAL AND LUMBAR REGIONS—DEATH
UNDER THE INFLUENCE OF CHLOROFORM.

(Under the care of Mr. W. SPENCER WATSON.)

IN this case, the great difficulty of dealing with a very extensive burn on the back in a young child is well illustrated. The dressings employed during the ten months that the patient (a boy eight years old) was under treatment were very various; and almost all seemed to offer encouraging prospects for a time. Some accidental circumstances as to general health generally cut short these hopeful anticipations, and ultimately the sore remained nearly as large as at the commencement of treatment. Meanwhile a smaller sore (resulting from the same burn) on the right arm healed up kindly under different forms of antiseptic dressing, among which the carded oakum seemed to offer the greatest advantages.

During the earlier months of the case, on every occasion on which the dressings were changed, the boy screamed and writhed about so violently that an effusion of blood (in vesicular pouches of sizes varying from a cobnut to a small hen's egg) frequently took place under the granulations; and very often these vesicular pouches gave way, and a considerable escape of blood resulted. The changes of dressings, therefore, were put off as long as possible, in order to avoid these effusions of blood and the disturbance in the ward consequent on the violent screams of the patient. Under Lister's plan it was found that no change of the dressings was required oftener than every third or fourth day, and on one or two occasions they were left unchanged for ten or fourteen days. Chloroform was given very frequently, in order to prevent the disturbance and the painfully evident distress of the little patient.

For several months he was kept in bed, but latterly had been allowed to be up and to go about the ward and the hospital garden. The most satisfactory dressing, taking all things into consideration, was the application of a film of dry collodion* fixed to the skin, surrounding the margins of the ulcer by wet collodion; the clothes being kept away from the sore and its dressings by a sort of cage, through the wire of which carded oakum was loosely woven. This dressing remained on for four days at a time, and on removal no putrid or offensive smell was noticeable, the granulations looking more healthy than at any previous time. Next to this in point of usefulness came Lister's antiseptic lac-plaster and protective oil-silk; and next, a dry powder of tannin and myrrh.

Previous efforts at skin-grafting having proved unsuccessful, a renewed attempt was made on March 15th, which again failed. The engrafted skin was on this occasion kept in its place by a piece of diachylon plaster, and the rest of the sore was left freely exposed to the air. It became incrustated with a greenish-yellow scab, which at the end of a few days was very foul and mouldy.

About the middle of May, a fresh supply of the collodion-tissue having arrived, the sore was regularly dressed with it, and its appearance very much improved; the discharge becoming less copious and the granulations more healthy in colour and size. The general health, however, was at this time exceedingly bad.

On May 31st, the collodion tissue dressings were removed. These dressings were protected (by a kind of cage with carded oakum on it) from friction against the boy's loose blouse. The surface of the sore had much improved, and along the left edge a line of blueish cicatrix had formed, in some places of half-an-inch in width.

While [the boy was under chloroform for the purpose of changing the dressings, it was necessary to turn him with his face downwards, or nearly so; and when the dressings had been nearly completed, and after the inhalation had been discontinued for more than a minute, it was observed that breathing had ceased. Artificial respiration by

* This dry collodion-tissue was first introduced by Mr. Dawson, the Instructor in Photography at King's College, London. Mr. Dawson had prepared it for the use of a non-medical friend, who found it extremely useful to him for dressing a sore on his own person, on which he himself (the patient) was grafting epidermis. Mr. Dawson has since prepared some of the same tissue for Mr. Spencer Watson's use in the present case; and it can now be obtained in sheets of a considerable size, of Rouch, chemist, Norfolk Street, Strand. It is almost perfectly transparent, and thus allows the inspection of the granulations in the process of growth; and it is perfectly non-irritant.

Silvester's method was at once employed, and galvanisation of the diaphragm through the phrenic nerve was, after about a minute, also used. A few inspiratory gasps accompanied each application of the galvanism at first; but, after it had been repeated at regular intervals for about a quarter of an hour, no further action of the muscles could be induced. Artificial respiration was continued for three-quarters of an hour.

At the *post mortem* examination, the blood was dark-coloured, and only a very small coagulum was found in the right ventricle, which was not in the least distended. The *left ventricle* was firmly contracted, and contained very little blood. The *left lung* was firmly adherent over the whole upper lobe to the pleura costalis, and in the lower lobe there was considerable lobular collapse, with some compensatory emphysema. The lining membrane of the *trachea* was congested and swollen, and in the minute *bronchi* was a quantity of rusty-coloured frothy mucus. The *stomach* contained a considerable quantity of food. The *duodenum* was healthy throughout; the sinuses of the *dura mater* were rather full of blood; the *dura mater* itself was firmly adherent to the calvarium opposite the centres of the parietal and frontal bones, which were marked at those adherent surfaces by a remarkable arborescent indentation. The *brain* was perfectly healthy, but the lateral ventricles contained a rather excessive quantity of clear serum.

ST. GEORGE'S HOSPITAL.

PURPURA HÆMORRHAGICA, WITH MELÆNA, HÆMATEMESIS, EPISTAXIS
AND HÆMATURIA, FOLLOWING A BLOW ON THE CHEEK.

(Under the care of Dr. FULLER.)

THE following case, for the notes of which we are indebted to Dr. Cavafy, Medical Registrar, is of much interest. No family history of the hæmorrhagic diathesis was obtained; but judging by the previous history of the patient—that he had bled freely from slight wounds on previous occasions—the case may be regarded in this light. The occurrence of the blow was probably little more than a coincidence.

Fred. A., six years of age, a very intelligent fair-haired child, with legs much bent from rickets, was admitted into St. George's Hospital under Dr. Fuller on June 1st. It was stated that, while at play on May 29th, he struck his right cheek severely against a beam. The part became bruised and swollen; and, two days later, the eyelids of the right eye changed to a deep purple colour; the eye was noticed to be bloodshot; and numerous purple blotches appeared all over the body. The nose bled profusely. His mother had noticed on previous occasions that he bled very freely from slight wounds. There had been no deficiency of vegetables in his diet. On admission, there were a bruise on the right malar prominence; a very extensive black eye and a patch of hæmorrhage in the right conjunctiva; and numerous blotches of purpura, of various sizes, scattered over the face, trunk, and extremities. There was much epistaxis. Blood was vomited, was passed by the bowel, and was present in large quantity in the urine. He was at once ordered ten minims of tincture of digitalis in water every four hours; and good diet, with greens, lemons, and watercress. The bleedings continued on the following day, and he became blanched and exhausted; but by the 3rd instant there was marked improvement, the urine being of normal colour, with a mere trace only of albumen. The digitalis was now reduced to five minims in quinine draught. By the 6th, the general bleedings had entirely stopped; the purpuric spots had nearly quite faded; and now (June 13th) he is convalescent, and mere traces of the former blotches remain.

THE MIDDLESEX HOSPITAL.

TRAUMATIC ERYSIPELAS: PHLEBITIS: ABSCESS OF LUNG: RIGHT
HEMIPLEGIA: EMBOLISM OF RIGHT VERTEBRAL ARTERY.

(Under the care of Mr. NUNN.)

J. M., a man aged 59, was admitted into the hospital suffering from extensive cutaneous erysipelas of the right leg and thigh, brought on by a superficial injury to the leg sixteen days before admission. Some hardness and tenderness along the course of the femoral vein followed and continued for some weeks, but gradually and completely subsided. Collodion and cotton-wool were applied to the limb, and the tincture of the sesquichloride of iron administered internally; and the patient at length was allowed to get up. A few days after he first left his bed, and seven weeks from the day of his admission, he shivered, felt sick, and was feverish; his breathing soon became embarrassed, and there was marked dulness around the angle of the left scapula. A few days later he vomited a large quantity—at least half a pint—of pus and mucus, and there were loud mucous *râles* and rhonchus audible over the greater portion of the left lung, with dulness on the left side from the third rib

downwards. From this time he continued to spit up a large quantity of muco-purulent fluid, in which no lung-tissue, but a very large quantity of pus-cells, was present; and on the twelfth day from the first discharge he was seized with severe pain in the right temple and forehead, and along the right side of the skull to the occiput. The next morning the right side of his face was seen to be a little drawn, and there was some loss of power of the right hand, as well as, but in a slighter degree, of the right leg. There was no paralysis of sensation; the pain in the head continued; but there was no loss of consciousness, and no delirium. In this state he remained; the paralysis of motion slightly increasing, and the purulent expectoration continuing up to the time of his death, three weeks after the paralysis commenced.

At the *post mortem* examination, which was conducted by Mr. Morris, no clot was found in the femoral or any of the large veins of the limb originally affected; but their lining membrane, and that of the cavities of the heart itself, were deeply blood-stained. The bronchial tubes of each lung were congested, and contained a quantity of muco-purulent fluid. The lower lobe of the left lung was firmly adherent to the diaphragm and parietal wall, and could not be separated except by lacerating the lung-substance. A large abscess-cavity existed near the surface of the lung, the outer wall of which was formed by the thickened pleura and a thin layer of ragged flocculent lung-tissue, and corresponded in extent with the space between the third costal interspace and the seventh rib. The rest of the wall was formed by discoloured sodden lung-substance. One of the large branches of the left pulmonary vein contained a dirty reddish-brown adherent and ragged clot; and some of the smaller branches contained other and more recent branching clots. On examining the brain, the ophthalmic arteries, more especially the right, were found distended with dark fluid blood; and the right vertebral artery, from close to its junction with its fellow of the opposite side to the space between the fourth and fifth transverse cervical processes, was filled with an old brownish granular-looking clot, adherent to the walls of the vessel. No abscesses were present in any part of the brain or in the other viscera, all of which, as well as the brain, were, however, considerably softer than normal.

REMARKS.—From the history of this case, it is conclusive that the phlebitis which accompanied the erysipelas for which he was admitted had given rise to thrombosis, and this to the pulmonary abscess; that the hemiplegia was due to the cutting off of the arterial supply through the right vertebral artery; and that this in its turn had been brought about by the conveyance to that vessel from the pulmonary vein of a fragment of the clot which had been formed in it.

LEEDS INFIRMARY.

CASES TREATED BY ELECTRICITY.

(Under the care of Dr. CLIFFORD ALLBUTT.)

I. *Infantile Palsy*.—Fanny —, aged 5, who attended at the Leeds Infirmary under Dr. Clifford Allbutt during the winter 1870-71, presented a good example of infantile palsy. The child was of very healthy appearance as regards its nutrition, and was born of healthy parents. It was late, however, in learning to speak, and it had a peculiar expression of the eye, as if shrinking from full light; but its mother stated that the child was quite intelligent. It was utterly unable to walk, or even to stand; its legs were rather smaller than natural, and they were very cold and flabby to the touch. This palsy was not referred to any definite date; but the child never had been able to walk. If the palsy had set in suddenly during early childhood, its onset, even if attended with some fever, might nevertheless have been unnoticed. On testing the legs by faradism, there was no motor reaction whatever, but sensibility to the current was preserved, and probably exalted, as the gentlest applications seemed to distress the child extremely. The induction-stream was applied for a few times to see if any reaction was awakened, but without success, and the continuous current was therefore substituted for it. On applying a current of fifteen of Muirhead's cells, full contraction of the muscles was readily obtained; and the whole limbs were thrown into strong movement by placing one (positive) pole upon the lumbar spine and the other upon the legs successively. After about half-a-dozen sittings, a slight reaction to faradism began to appear, and the two kinds of electricity were then applied alternately. During this time the child slowly improved; she could walk with the help of the furniture, and astonished her mother one day by coming down stairs. At this stage, however, she became stationary, no further improvement appeared, nor did the muscles recover full susceptibility to the faradic current. She was therefore discharged at the end of three months, somewhat relieved.

Dr. Allbutt said that this case was a good illustration of the course of many cases of infantile palsy.* Under this name no doubt many forms of palsy may be included; and he instanced this by referring to another case in which the arm and leg of one side were palsied, and in which, although there was more muscular atrophy, reaction to faradism was in some degree preserved. In this child the hemiplegia was due probably to disease of the brain. In other cases we have rather to assume a definite lesion of the spinal cord; in one case, for instance, in which the spinal cord was examined by Dr. Allbutt, a hæmorrhage was found; and other observers have found patches of chronic inflammation, or its remains, in the cord. Other cases, again, are suggestive rather of some peripheral mischief—such, perhaps, as neuritis, affecting one extremity. In these cases, Dr. Allbutt said, we find loss of faradic contractility very early; and the palsy may affect but one limb, or even certain groups of muscles only within one limb. In the absence of *post mortem* examinations, however, we can only distinguish between palsies of cerebral and spinal origin—a distinction which is generally to be made without difficulty—and palsies of certain special groups of muscles; say of certain muscles of the trunk or of one extremity, palsies which have sad results in deformity of body and distortion of limb. The atrophy does not in any of these cases advance *pari passu* with the palsy, as we see in wasting palsy proper. Muscles may retain a fair volume during the first week of the disease, while at a subsequent stage we may find not only the muscles, but the bones, in a state of atrophy; bone-growth, as you know, being so much dependent upon the activity of the associated muscles.† The progressive muscular atrophy of Duchenne is, I believe, never seen in childhood; or rather, to speak quite accurately, the two recorded cases I have met with are recorded by Duchenne as exceptions proving a rule.

There is, however, another disease in which we find paralytic symptoms accompanied, for a time at least, by abnormal increase in the volume of certain muscles—a disease also discovered by Duchenne; and this is not unknown in young life. We have had two such cases in our Infirmary, and both occurred in youth; one patient being a boy of seven and the other a boy of thirteen. In this disease you will find that reaction to faradism always remains in some degree, a degree directly proportionate to the amount of muscle undestroyed. In the simple debility of rickets, again, which not uncommonly simulates infantile palsy, we still find an adequate response to induction-currents. In the hemiplegic form of infantile palsy, when encephalic mischief is the cause, we also find a greater permanence of farado-contractility. It is but the other day that I saw one of you faradising the fore-arm of a poor little child palsied in all four limbs in consequence of encephalic mischief, the muscles and bones of the arms being much wasted. The operator believed that there was no reaction to the current; but, on turning the eyes away from the fore-arms to the fingers, and then including the extensors in the circuit, digital movements were distinct enough. In such cases, where the muscles are much wasted, I attach a strip of white paper by means of gum to the index or middle finger; this will indicate slight muscular contractions, which are quite invisible in the muscle itself. If vibrations occur, the patient use of faradism may often be attended with great success. Commonly, however, in spinal and peripheral palsies, all response to induction-currents is absent, and you must then have recourse to the continuous current, applied direct to the muscles, or with one pole upon the spine and the other upon the muscles, or upon the nerves between the two.

Always use very gentle currents to children, whether continuous or interrupted, and begin with no more than ten cells, increasing this carefully to fifteen cells. As the parts are improved, the sensibility to continuous currents will recede, and you may have to advance to twenty or even twenty-five cells; more than this is never necessary, and may be injurious, or at any rate very painful; and children never have confidence in a doctor who hurts them. As you patiently work on with gentle applications—say every other day for two or three minutes at a time—you will, if you are fortunate, find that the muscles which were formerly sensitive only to the long currents of the galvanic battery, are now becoming capable of reaction to the short currents of the Faradic machine. You must now work the two methods together, giving about two minutes of the continuous current and two minutes of the interrupted current on alternate days. As the patient improves, the susceptibility of the muscles to galvanism will decrease, and faradism may be used alone. By steady perseverance very remarkable relief may thus be afforded in a few cases; though in too many you will find that, after reaching a certain point, you can get no farther, and the treatment has

* See an interesting article on this disease and its treatment, by Dr. Russell Reynolds (*Lancet*, July 1868); where Dr. Reynolds compares infantile palsy with a form of palsy which occurs occasionally in women after childbirth.

† The trophic palsy is often out of proportion to the motor, being frequently less severe—sometimes, it would seem, more severe.

to be laid aside.* In some cases the susceptibility to the two kinds of electricity does not observe the mutual relation which I have described, and in this case you will chiefly employ that agent which seems to answer best. Together with the electric treatment you will also make use of rubbing, frequently applied to the affected parts, and the limbs should also be sponged in hot brine; but you will find that the low temperature is one of the first defects which is removed by the electricity. Mechanical movements, both active and passive, must also be studiously enforced, short of fatigue.

On the whole, although you will meet with a large proportion of disappointing cases, and with many old cases in which reaction to both kinds of electricity is quite lost, yet you will find that electricity has no mean power over most cases of infantile palsy; and this is a great deal to say, for few diseases are at first sight more hopeless. Where there is meningo-myelitis, or its results, you cannot hope to advance the cure beyond a certain point; but, as I shall tell you when speaking of hemiplegia, we cannot say how near or how far from health this point may be until a full trial has been made. Too often we shall find but little room for any improvement, and that soon lost again; but in other cases we may make an useless limb valuable in some or in great measure. In a third class of cases, in which palsy, set up by some less profound mischief, has been afterwards perpetuated as a habit, you may bring the incalculable blessing to both parent and child of great relief, or even of cure.

As my object in these remarks has been only to instruct you in the electric treatment, I have not made any reference to the medicinal treatment, which is, however, in many cases of great importance, and must be carried on together with the former.

CLINICAL MEMORANDA.

POISONING BY YEW-LEAVES (*TAXUS BACCATA*).†

R. H., a servant-girl in a farm-house, aged 19, on the 6th Sept., 1868, consulted me at my house, complaining of sickness and pains over her stomach, and stated that she had not menstruated for some time. The girl seemed rather restless and excited, and I suspected that she might be pregnant, and prescribed some simple remedies to relieve her sickness. She left her place for a few days to stay with her mother, and returned to her service on the 13th September. On the following day I was hastily summoned to the house, two miles distant, and found the girl lying dead on the floor of the dairy. The mistress informed me that she came back to her still unwell, and that she had that evening left the tea-table and was very sick; that she came back to the meal, and soon afterwards went into the dairy to get out some supper for the men. Her mistress heard her fall suddenly, and, on going into the room, found her lying on the floor with her knees drawn up, and quite dead. I found her in this situation. The eyes were closed, the pupils slightly dilated; there were no marks of violence, and no unusual smell about the mouth. The sickness and sudden death led me to suspect poison; and, on searching the pockets of her dress, I found some pieces of cheese, and a good many leaves and small branches of the common yew-tree; and in the pocket of a dress which she had worn the day before were also a quantity of yew-leaves, and an unopened packet of salts of lemon, marked "poison".

On making a necropsy twenty hours after death, the body was found to be well-nourished; there were no external marks; the lungs were slightly congested, and there were some old adhesions of the left pleura. The heart was of natural size, and healthy; the liver and kidneys were slightly congested; the stomach and intestines were darker than usual on the outside. The stomach contained about half a pint of greenish-looking fluid, in which were a great quantity of small bits of undigested yew-leaves, with undigested food and mucus. On the lining membrane of the stomach were several red patches of inflammation. Throughout the whole course of the small intestines were the same appearances, and the contents were tinged throughout by the green leaves of the yew.

Poisoning by yew is well known among cattle; but it is rare in man. Several cases are on record, and one peculiarity has been usually noticed; viz., that death is very sudden, as in this case. Did this girl suspect that she was pregnant, and take the yew with a hope of procuring abortion? No signs of pregnancy existed, but all evidence of virginity was gone. A sister had destroyed herself when pregnant by taking Battle's vermin killer (strychnine).

WILLIAM WALLIS, Hartfield, Tunbridge Wells.

* I have to thank my late house-surgeon (Mr. Drake) for his assistance in the treatment of a few of my cases.

† Read before the East Surrey District of the South-Eastern Branch.

THE Subscriptions to the Association for the year 1871 became due in advance on January 1st. All which are not already paid, should be forwarded to the General Secretary, Mr. T. Watkin Williams, 13, New Hall Street, Birmingham; or to the Secretaries of Branches.

BRITISH MEDICAL JOURNAL.

SATURDAY, JUNE 17TH, 1871.

DEATHS FROM CHLOROFORM.

IN our Hospital Reports appear the details of a case of death from chloroform to which we last week briefly referred. No excuse is needed for keeping attention fixed on this very important subject; and the numerous fatalities of late have offered but too many occasions for comment. The fifth volume of Holmes's *System of Surgery*, just issued, includes Mr. Lister's well-known article on anæsthetics; and, turning to it, we find that the accomplished author is of opinion that "the nine years which have passed since the article was written have tended to confirm its main doctrines". He accordingly reproduces it unaltered, with a few pages of appendix containing some remarks to which present circumstances give particular interest. The main conclusions of the original article are, it may be remembered, summed up in very few words. They are so important that we quote them.

"It appears that chloroform, though resembling many other valuable means of treatment, in being deadly when mismanaged, is free from danger if properly used; the following being the rules for its safe administration. A drachm or two of the liquid having been sprinkled upon the middle of a folded towel, hold it near the face, taking care that free space is afforded for the access of air beneath its edges, till the eyelids cease to move when the conjunctiva is touched with the finger. Meanwhile watch the breathing carefully; and if at any time it should become obstructed or strongly stertorous, suspend the administration and draw the tip of the tongue firmly forwards till the tendency to obstruction has disappeared.

"These simple instructions may be acted on without difficulty by any intelligent medical man. The notion that extensive experience is required for the administration of chloroform is quite erroneous, and does great harm by weakening the confidence of the profession in this invaluable agent, and limiting the diffusion of its benefits."

The experience of Mr. Lister and of Mr. Syme has been entirely free from chloroform accidents; and he adds: "Further, I believe I am correct in stating that no case of death has occurred during these nine years in the operating-theatre of either the Edinburgh or the Glasgow Infirmary, two of the largest surgical hospitals in Great Britain." In both the folded towel is used; the chloroform is neither measured nor stinted; preliminary examination of the heart is never thought of, and during the inhalation the pulse is entirely disregarded; but vigilant attention is kept upon the respiration, and in case of its obstruction firm traction upon the tongue is promptly resorted to. On this latter proceeding Mr. Lister lays very earnest stress, believing it to be even yet not duly appreciated by the profession.

The danger of chloroform, Mr. Lister thinks, may be compared to that of railway travelling: it is so small that it need not enter seriously into our calculations. And "just as railway accidents are generally occasioned by culpable mismanagement, so death from chloroform is almost invariably due to faulty administration". Of course it is a significant contrast to this emphatic and deliberate opinion, that the result of all the inquests, without exception, with which we are acquainted—and they are now a terribly long list—is to declare the administration to have been faultless, and the deaths due to the unavoidably lethal effects of the drug. While begging the attention of administrators of chloroform to the declaration of this very weighty authority, we must ask Mr. Lister whether his declaration of the innocuous effects of chloroform at the Edinburgh Infirmary may not easily be too broadly interpreted. We have already stated that *five deaths* during the administration of chloroform are understood to have occurred at the Edinburgh Infirmary

since the introduction of that agent there. It might readily, but we confess quite erroneously, be inferred from parts of the text that no deaths whatever had occurred there, or indeed could occur there, from the administration of chloroform. We may also ask Mr. Lister to note the fact that in the case recorded to-day in our columns the boy was prone, and the tongue therefore gravitating forward, when death occurred.

Referring to the use of sulphuric ether—of whose reintroduction into British practice we have been and are the urgent advocates—Mr. Lister of course makes light of the argument of its greater safety. For he holds that chloroform-deaths proceed from mismanagement, and that “the rules for the satisfactory use of chloroform are so simple that mismanagement is really inexcusable”. The case, he thinks, may be fairly stated by saying that ether is less liable to cause death from mismanagement, because it is less potent. This of course involves a great many assumptions, and leaves out of view important considerations. We are disposed, for example, to lay stress upon the greater diffusibility of ether, and its less liability to accumulate in the blood and more rapid removal from the circulation. For the present we may, however, take our stand upon the fact, and await explanation. Mr. Lister refers to the importance which Dr. Keith attaches to the use of sulphuric ether in ovariotomy, as being more rarely followed by vomiting. Dr. Keith employs anhydrous ether, and with it produces anæsthesia almost as rapidly as by chloroform, and without waste of the material, by simply pouring a little of the liquid occasionally upon a piece of flannel contained in a cup-shaped vessel adapted to the mouth and nose, with a small aperture for the entrance and exit of air.

Regarding nitrous oxide, Mr. Lister says “it is pretty generally admitted that its legitimate place is for operations of very short duration”. Strangely enough, he gives not a line of directions as to its mode of administration, nor of reference to any authority upon the subject, all of which he might readily enough have culled from our past volumes.

THE CONSTITUTION OF BLOOD AND NUTRITION OF TISSUE.

At the meeting of the Royal Society on May 30th, Dr. Marcet read a paper of great interest, describing an experimental inquiry into the constitution of blood and the nutrition of muscular tissue. The conclusions arrived at were as follows. 1. Blood is strictly a colloid fluid. 2. Although blood be strictly a colloid, it contains invariably a small proportion of diffusible constituents, amounting to nearly 7.3 *grammes* in 1,000 of blood, and 9.25 *grammes* in an equal volume of serum, these proportions diffusing out of blood in twenty-four hours. 3. The proportion of chlorine contained in blood has a remarkable degree of fixity, and may be considered as amounting to three parts (the correct mean being 3.06) in 1,000. 4. Blood contains phosphoric anhydride and iron in a perfect colloid state, or quite undiffusible when submitted to dialysis; the relative proportions appearing to vary from 78.61 per cent. of peroxide of iron and 29.39 of phosphoric anhydride to 76.2 and 23.8 respectively, the proportion of phosphoric anhydride having a tendency to be rather higher. 5. Blood contains more phosphoric anhydride and potash, bulk for bulk, than serum. 6. A mixture of colloid phosphoric anhydride and potash can be prepared artificially by dialysis; and the colloid mass thus obtained appears to retain the characters of the neutral tribasic phosphate from which it originates; it exhibits an alkaline reaction, yields a yellow precipitate with nitrate of silver, and, after complete precipitation, the reaction is acid. 7. By dialysing certain proportions of phosphate of sodium and chloride of potassium during a certain time, proportions of phosphoric anhydride, potash, chlorine, and soda are obtained in the colloid fluid, in proportions very similar to those which these same substances bear to each other in serum after twenty-four hours' dialysis. 8. Muscular tissue is formed of three different classes of substances; the first including those substances which constitute the tissue proper, or the portion of flesh

insoluble in the preparation of the aqueous extract, and consisting of albumen and phosphoric anhydride with varying proportions of potash and magnesia; the second class including the same substances as are found in the tissue proper, and in the same proportions relatively to the albumen present in that class, but existing in solution and in the colloid state; the third class including the same substances as are found in the two others, and moreover a small quantity of chlorine and soda, which, although relatively minute, is never absent. The constituents of this class are crystalloid, and consequently diffusible; the phosphoric anhydride and potash being present precisely in the proportion required to form a neutral tribasic phosphate, or a pyrophosphate, as the formula 2 KO PO^5 can equally be 2 KO HO PO^5 . 9. Flesh contains in store a supply of nourishment equal to about one-third more than its requirement for immediate use, this being apparently a provision of nature to allow of muscular exercise during prolonged fasting. 10. The numbers representing the excess of phosphoric anhydride and potash in blood over the proportion of these substances in an equal volume of serum, in the regular normal nutrition of herbivorous animals, appear to bear to each other nearly the same relation as that which exists between the phosphoric anhydride and potash on their way out of muscular tissue. 11. Vegetables used as food for man and animals, such as flour, potato, and rice, transform phosphoric anhydride and potash from the crystalloid or diffusible into the colloid or undiffusible state; and it is only after having been thus prepared that these substances appear to be fit to become normal constituents of blood and contribute to the nutrition of flesh. The fact established by the whole of the investigation was, that there is a constant change or rotation in nature from crystalloids to colloids, and from colloids to crystalloids.

COMPULSORY BIRTH REGISTRATION.

A SHORT and extremely useful Bill, introduced by Dr. Lyon Playfair, and backed by the authority of the Chairman of the Royal Sanitary Commission of the Infant Life Protection Committee of the House, proposes to relieve this country of that laxity of registration which is a fertile cause of crime and disease amongst us. Scotland and Ireland are well vaccinated and protected from small-pox epidemics, mainly because the birth-registration is compulsory; and the registers afford a fair basis of action in preparing vaccination lists. The Select Committee of the House of Commons on Vaccination, in expressing the opinion that a compulsory registration of births, such as exists in Scotland and Ireland, is needed for England, point out that the non-registered children are those most likely to escape the notice of the vaccinators. It is in evidence before Mr. Walpole's Committee, that baby-farmers avoid registering the infants confided to them from the birth, in order that they may the more securely murder them. Non-registration of births is one of the roots of systematic infanticide. We are disappointed that this measure does not include the registration of still-births, which is now entirely neglected. But just as it is, the measure will confer a boon on the country, and lead to a great saving of life and the prevention of crime. It is so useful a measure, that in this session of wasted legislative force we can but breathe a trembling hope for its safety.

THE BRITISH MEDICAL ASSOCIATION.

WE have before us, unofficially, a correspondence between Mr. T. Watkin Williams, General Secretary of our Association, and Dr. Paget, Dr. Acland, Dr. Stokes, Dr. Embleton, and Dr. Rumsey. In this correspondence, Dr. Paget complains of a misrepresentation of the motives of himself and his colleagues in retiring from the executive. Mr. Williams's explanations not being satisfactory to Dr. Paget and his colleagues, Dr. Acland subsequently forwarded the resignation of his colleagues and himself as members of the Association. It is a correspondence which we read with a deep pain, that will be generally shared in the Association. We do not at present feel at liberty to say more on the subject, than to express a hope that it may yet be satisfactorily arranged.

MEDICAL REFORM BILLS.

THE doom which the Bills of Dr. Lush and Mr. Brady bore inscribed on their front was pronounced on Wednesday night. These gentlemen have had the melancholy satisfaction of displaying before the House of Commons the spectacle of a house divided against itself, and of presenting opposing Bills which neither of them could conscientiously say had received the approbation of any important mass of the profession, and which were opposed by the Government and by every corporation but one, and from which the Medical Reform Committee of this great Association were compelled to withhold their support. The Bills were massacred with necessary but painful solemnity.

It will be a source of satisfaction to the members of the British Medical Association that they were not made parties to this unsatisfactory display, which, even as it was, did not fail to impress the House with an unjust and mischievous impression that the medical profession does not know what it wants; and that it delights to ask for impossible and contradictory legislation. Whether those concerned are equally satisfied to have displayed their weakness and impracticability at the same time that they kept out of the field possible and practical measures of reform, is more than we can say. It is, of course, something to have shouted for reform and good government, and to have succeeded in deferring any chance of either, for certainly one, and perhaps two, years. By extreme persistence and the mistaken kindness of Dr. Lush, half-a-dozen anonymous and self-appointed reformers have succeeded in doing this. Let us hope that the sorry performance will not be repeated.

THE REGULATION OF PHARMACY.

THE drug of oblivion is no doubt extremely well suited to the present circumstances of the Pharmaceutical Society. It occurs to us, however, that it is abused in the preparation of the reply of the official organ of the Society to our strictures on the course of the Council and the Society in failing to issue compulsory regulations for the storing and dispensing of poisons, with a view to the prevention of accidental poisoning. The attempt is made to persuade us that the Council has no responsibility in the matter. We have only to recall the facts, that the Council has both incurred and has recognised the responsibility (specially imposed by a reference from the Society) of framing suitable compulsory regulations; that it framed them selfishly in that it altered them, under pressure of the trade, so as to promise the maximum of protection to the chemist and the minimum to the public; and finally, with a want of moral courage which we decline to qualify, withdrew altogether from its earlier position under further pressure, and issued them as regulations which it suggested to the Society for voluntary adoption, and not for compulsory establishment. So much as to this feeble attempt to whitewash the Council. Of course the Society is the culprit in the great degree. The excuse proffered by the *Pharmaceutical Journal* is that, "however obligatory the provisions of the Act may be in regard to poison-regulations, it surely cannot be contended that the Society is under the obligation to prescribe regulations unless they were necessary; and it has been decided by the Society that compulsory regulations are not needed." The sophism is skilful, but of transparent flimsiness, and rends under the slightest touch. The Act calls upon the pharmacutists to frame necessary regulations for the protection of the public, and prescribes how such regulations are then to become compulsory. The question is barely arguable, whether any regulations could be devised which would be useful for the purpose. If none such could be devised, as has been desperately contended by some persons, the duty falls. But the pharmacutists have admitted that such regulations can be framed, by having framed them. This having been once done, the duty under the Act of making them compulsory, and so carrying them out, is clear as noonday. There is no room for argument on the subject. Certain regulations having been admitted to be likely to diminish accidental poisoning, the duty of giving them statutable

force was imperative, unconditional, and part of an absolute pledge, as well as within the distinct intention of the Act. It is to be regretted that the Council and the Society have thus broken their pledge and failed in their duty to the Government and to the public.

So much as to the past. But while we write, a Bill is being passed through the House of Lords which will protect the public from further torts of the Pharmaceutical Society, and will indicate to the Council its duty in a manner which admits of no escape. The short Pharmacy Bill, introduced by the Government, vests the duty of making poison regulations henceforth *solely* in the Council; and provides that, in case the Council neglect to communicate their regulations to the Privy Council, that body shall have power forthwith to frame and impose such rules as it may think proper. We hope that in the Commons an additional clause will be introduced providing inspection to see that the rules are carried out.

A VERY brilliant and successful bazaar has been held this week in favour of the Royal Orthopædic Hospital, Oxford Street.

THE annual Congress of the Social Science Association has been fixed to be held at Leeds from the 4th to the 11th of October next.

PROFESSOR TYNDALL gave last Friday a lecture on his famous subject of Dust and Disease, at the Royal Institution. It appears *in extenso* in *Nature* this week.

A REPORT from Buenos Ayres, dated May 16th, announces that the yellow fever was then declining, and the death-rate diminishing at the rate of twenty per day. Business had been resumed.

DR. CHAMBERS' Harveian Oration will be delivered at the College of Physicians at 5 o'clock on Wednesday, the 21st. The date was incorrectly quoted last week.

THE defendant in the case of *Craig v. Jex Blake* has tendered exceptions to the ruling of the judge, which have been lodged in the Court of Session.

It is proposed to recognise by public testimonial the great services of the Rev. Dr. Smith to the British poor in Paris during the sieges. Several correspondents of the daily papers refer to the equal propriety of an adequate recognition of the services of Mr. Wallace, Dr. Shrimpton, Dr. Herbert, and Dr. Rose Cormack.

THE deaths in London last week exceeded the average number by 92. The total number was 2132. The fatal cases of small-pox, measles, scarlatina, and whooping-cough, each showed an increase upon the previous week. The fatal cases of small-pox (the Registrar-General says), which in the three previous weeks had declined successively from 267 to 257 and 229, rose again last week. The mean temperature was 49.9 deg., or 7.5 deg. below the average of fifty years.

OF the many physicians and surgeons who were members of the Commune and of the Central Committee, only two are mentioned, according to the *Athenæum*, as dead—Parisel and Miot—both taken prisoners, and shot without trial. Jules Miot was a member of the Assembly in 1848, and was transported at the *coup d'état* to Oran. He refused the amnesty, and remained at Algiers, but afterwards lived in Brussels, where we believe that he again began to practise as a physician.

THE following notice of motion comes on to-day for discussion at St. Mary's Hospital, London: "To call, on Friday, the 16th instant, the attention of the Board to the present system of electing medical officers, as laid down in the laws, with a view to an alteration of such laws." The alteration alluded to has reference to the system of canvassing by the candidates. We have already expressed more than once the conviction that the interests of the hospital and of the governors will be served best by the appointment of a committee of selection.

FEMALE DOCTORS.

THE Emperor of all the Russias has intimated to the University of Helsingfors, through the Senate of Finland, his willingness to permit women to attend the medical lectures at that University in furtherance of the expressed wishes of His Majesty's Finnish subjects.

THE BODIES OF THE BRAVE.

THE Commission appointed by the Belgian Government to disinfect the battle-fields around Sedan have, in fact, resorted to incrimation on the largest scale. The burial-trenches having been carefully laid open, a considerable quantity of tar was pumped in; and, when this had infiltrated the mass, petroleum oil was poured in. This was set fire to, and light wood thrown on the flames, to make the combustion more active. At the end of three hours, nothing but a calcined mass of bones remained. During the morning, chlorine gas was set free in large quantities; and the workmen declare that there was not the faintest cadaveric odour perceptible. Finally, the calcined *débris* were covered thickly with dry chloride of lime, and the trenches heaped with earth mixed with quick lime.

THE TRADE IN DIPLOMAS.

THE *Boston Medical and Surgical Journal* of May 18th contains a correspondence carried on with a vendor of ready-made medical diplomas at 50 dollars, sent by express, with a reduction of 10 dollars on each, if more than one were taken for the use of friends. Some difficulty was experienced in obtaining beforehand the name of the university; ultimately it came, as follows:—"Yes, sir, the university with which I am connected is a reality. A regularly chartered medical institution, now in successful operation, all right and legal. Please see circular enclosed. You need never hesitate to guarantee the legality of this institution in every respect. Please let me hear from you immediately, and oblige yours truly. Address, Lock Box 38, Camden, N.J." With this came the printed circular of the American University of Philadelphia, with a long list of trustees and professors.

THE SMALL-POX AT SOUTHAMPTON.

IT is surprising how little deference zymotic diseases show to official letters. This is a particularly bad trait in the epidemic character of small-pox. The number of deaths from small-pox registered at Southampton last week was twenty-seven; and the disease maintains its ground, notwithstanding the reassuring communications of the Town Clerk. Nor is it altogether surprising that it should do so, seeing that no proper means of separating the diseased from the healthy have yet been adopted there.

ST. THOMAS'S HOSPITAL.

DR. MURCHISON, F.R.S., has been this week recommended by the Grand Committee for election by the Governors as Physician to St. Thomas's Hospital; Mr. Croft for election as Surgeon; Dr. John Harley and Dr. Frank Payne as Assistant-Physicians; and Mr. Francis Mason and Mr. Henry Arnott as Assistant-Surgeons. In these appointments unusual interest has been felt. This has been due to the freedom with which they were thrown open to the whole profession; the expressed determination to allow no personal considerations to interfere with the selection of the most distinguished incumbents who could be obtained for the vacant offices; and the feeling that the full-blown honours thus avowedly reserved for purely professional distinction in a school which has at this moment so much of brilliancy and promise, would attract candidates of an unusual order. St. Thomas's Hospital is, we cannot but think, peculiarly fortunate in having the opportunity of acquiring at one stroke so many elements of intellectual strength as it has gained by the addition to its staff of Murchison, Harley, Payne, Mac Cormac, Liebreich, in the liberality and judgment shown in the elections, and in the just promotion and wider scope of exertion which it has now offered to the able staff who have long enabled it to hold a proud place among metropolitan institutions, and to do honour to its traditional reputation.

ST. MARY'S HOSPITAL.

AT St. Mary's Hospital, on Friday last, June 9th, Dr. Broadbent was elected Physician, Mr. James Lane was elected Surgeon, and Dr. Meadows was elected Physician-Accoucheur, in the room respectively of Dr. Sibson, Mr. Lane, and Dr. Tyler Smith, retiring in accordance with the laws, at the end of their twenty years' term of office. Dr. Sibson was then elected Consulting Physician, Mr. Lane Consulting Surgeon, and Dr. Tyler Smith Consulting Physician-Accoucheur to the Hospital. The promotion of Dr. Broadbent and Mr. James Lane creates vacancies for an Assistant-Physician and Assistant-Surgeon. Dr. Theodore Williams and Dr. Nunneley are candidates for the vacant appointment of Assistant-Physician; and Mr. Edmund B. Owen for that of Assistant-Surgeon.

DR. MURPHY'S ANNUITY.

IN another column we publish a list of subscriptions received towards the Murphy Annuity Fund. Up to the present time, about £260 has been subscribed. It is hoped that a much larger sum than this will ultimately be collected; and, indeed, if the three hundred gentlemen who have already promised subscriptions will forward them without delay, they will add a double grace to their sympathetic aid. We need not remind any but the very youngest of our readers that Dr. Murphy was for many years the distinguished Professor of Midwifery in University College, and it is now proposed to enable him to pass the rest of his days in comfort by an annuity, of which he stands in need, being without resources.

THE CLUB MOVEMENT.

WE publish two further letters this week elicited by the communication of Mr. Manley of West Bromwich, to which we called attention last week. The letter of Mr. Evans leaves open room for hope that the mistake which sprang out of the unfortunate transaction which he describes may be remedied another year, and that the course of competition downwards may cease. It is, of course, important to know what has been the real effect of the movement initiated by Dr. Heslop. It promised much at its outset; and we are glad to find that it has not been so entirely without ultimate good result at one place at least—Wolverhampton—as Mr. Manley's unpleasant experience led him to conclude. It should not, however, we think, be left to fade away without effort, remonstrance, or record. What has been the result in Birmingham and its vicinity? It was here that the movement was most vigorously organised; and Dr. Heslop would confer a favour on his fellow-members if he would briefly trace the progress of the movement to this date, and inform them to what specific causes its failures, such as they may be, are attributable; and whether these causes are inherent or accidental, remediable or irremediable. It is a subject of large scope.

SMALL-POX AND VACCINATION.

AT a meeting of the Metropolitan Asylums Board on Saturday, a Committee which had been appointed to consider the subject of vaccination, and to confer with the Vice-President of the Privy Council on the amendment of the vaccination laws so far as they affected the metropolis, reported that they had had an interview with Mr. Forster, and submitted the resolutions at which they had arrived. These were, in substance, that the control of vaccination in the metropolis should be placed on one uniform system, and that the powers for the whole metropolis should be vested in one body; that the registration of births should be made compulsory; that the registration of vaccination should be compared at stated short intervals with the registration of births and deaths, to ascertain and follow up those who make default of vaccination; that the metropolitan vaccination authority should be responsible to one governmental department only; that the central authority should be empowered to visit from house to house, for the purpose of vaccinating the children of defaulting parents; and that the sale of lymph should be confided to authorised persons, and its adulteration

made a punishable offence. What these propositions lack in novelty they make up in good sense. These resolutions were unanimously adopted, and ordered to be sent to the Privy Council, with a request that they should be embodied in the Bill now before Parliament for amending the vaccination laws. It was stated that the new cases of small-pox reported during the fortnight numbered 624, against 563 in the previous fortnight. The total number of deaths in the hospitals during the fortnight had been 209, and the number of cases still under treatment was 1,763.

THE TRAIL OF THE MILKMAN.

It will be remembered that Dr. Taylor of Penrith in August last, and Dr. Bell of St. Andrew's more recently, traced epidemics of scarlet fever by following the milkman on the "walk" in which he distributed poisonous microzymes with his milk. Dr. Ballard made a similar exposure lately of the distribution of typhoid fever in Islington by the milkman. Dr. Aldis, beginning at the other end of the case, applied to Mr. Woolrych, at the Westminster Police Court, for a summons against a milkwoman in Belgravia for exposing herself during the time that she had small-pox. She had sold milk in her shop all the time that not only she, but others of her family, had the disease; and he thought that, as small-pox was on the increase, a summons should be granted. The magistrate, however, said the Act only applied to exposure out of doors; and he could not, therefore, issue the summons. Surely here is room for a "short Act" to amend the Sanitary Act; or must it await the larger scheme of sanitary reform which lies in the womb of the future?

CHOLERA IN RUSSIA.

THE Registrar-General observes this week, that Dr. Zuelzer, in forwarding his last weekly return for Berlin, called attention to the epidemic cholera now prevailing in Russia, especially at St. Petersburg, the only capital of a great State from which no direct returns are as yet received. In this respect Russia is behind the rest of the world. It is now time to put our house in order. The sewers are the main channel through which the cholera matter has been hitherto thrown into the rivers, and thence distributed with the water-supply. Give our towns pure water, improve their sanitary conditions, and they can bid this Asiatic disease defiance.

THE BRITISH ASSOCIATION.

THE circular of the Association to its members has been issued announcing the meeting at Edinburgh for the 2nd of August, under the presidency of Sir William Thomson, F.R.S., Professor of Natural Philosophy in the University of Glasgow. The facilities afforded by the railway and steam-boat companies will probably ensure a large attendance, and there can be no doubt of the cordiality of the welcome. The city and its neighbourhood for thirty miles around is of high historic interest, and an admirable field for the geologist and naturalist. The railway companies, by agreement among themselves, will convey members from any part of Great Britain to or from Edinburgh by first and second-class tickets, available from the 1st to the 11th of August, both days included.

IMPORTANT REFORM OF MEDICAL CHARITIES.

OUR Manchester correspondent writes:—A meeting was held in Manchester last week to consider the desirability of amalgamating our medical charities, and of instituting a series of provident dispensaries for the relief of those classes—removed from pauperism, yet too poor to pay a doctor—who need medical attendance at home, or are only able to visit a neighbouring charity. When it is remembered that the Committee of the Cotton Relief Fund are interested in this scheme, and that they have considerably more than £100,000 at their disposal, which they are sore let and hindered to know what to do with, it will be seen that this meeting has important bearings upon the future of the medical charities of Manchester. There is a strong desire among some of the members of the Committee to devote almost the entire sum to

the establishment of provident dispensaries, which, judiciously scattered over the town and suburbs, would, they believe, greatly remove the distress which the non-pauperised poor feel at the approach of sickness. They further maintain that such a scheme would not at all interfere with the work of the existing charities; for these dispensaries would have no beds, and consequently would not at all decrease the number of surgical or medical in-patients of the hospitals. The effect which they would have upon the hospitals would rather be to work a reform in the out-patient department, converting the careless hurried manner in which, from their vast number, the patients are too generally seen at present, into a well organised system, when each patient would have due attention paid to his case, without keeping him for two or three hours in an atmosphere which must go a long way towards undoing any good which "the bottle" may achieve. Objections to this scheme, which is quite of the character of a medical revolution, will probably be made by those surgeons whose practice lies among the poor; but then it is urged that, as there will be from half a dozen to a dozen medical men attached to each dispensary, these objectors would be the very men selected, in all probability, to fill the posts of physicians and surgeons to the dispensaries in their neighbourhood; and, as the number of subscribers would be large, the pay would be an equivalent for the work done. The elections would rest in the hands of the subscribers.

DR. NORRIS'S DEMONSTRATIONS AT THE COLLEGE OF PHYSICIANS.

A LECTURE was given at the *conversazione* of the College of Physicians, by Dr. Richard Norris of Birmingham, on Wednesday evening, illustrated by an exquisite series of experimental demonstrations from his researches on the passage of blood-corpuscles through the walls of blood-vessels. We shall have an early opportunity of laying before our readers an account by Dr. Norris of these demonstrations, which are of great physiological interest.

CONVERSAZIONE AT THE LONDON COLLEGE OF PHYSICIANS.

THE *conversazione* of the College of Physicians on Wednesday evening was largely attended; and, besides many beautiful works of art, objects of great scientific interest were shown. Among them were an electrical thermometer for deep sea-soundings, and other scientific instruments, by Sir Charles Wheatstone; the diffraction-spectrum of magnesium, shown by a diffraction grating, ruled by Mr. Lewis Rutherford of New York; absorption spectra of chalcocite, didymium, etc.; spectroscope for use in the Bessemer process, showing the spectrum of silver; and a new compound prism of very high dispersive power, by Mr. Browning; a new arrangement for correcting the chromatic aberration in high-power object glasses, by Messrs. Powell and Lealand; aquaria, showing marine animals, hippocampus and others, by Mr. G. H. King; experiments with liquid nitrous oxide, by Mr. Wills.—In the lecture-theatre, experiments illustrative of the passage of blood-corpuscles through the walls of blood-vessels, with demonstrations, were shown every half-hour by Dr. Richard Norris: and in the lower room, Lissajon's experiments "On the Combination of Vibrations of Tuning-forks", and "on the Examination of a Vibrating Glass Rod by means of Polarised Light". by Professor Tyndall; with vacuum-tubes of new designs, by Mr. Ladd.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE literature of ovariectomy was largely enriched on Tuesday, when Mr. Spencer Wells presented to the Society a very valuable paper on a fourth series of one hundred cases of ovariectomy performed by him during the past two or three years. The contribution was rendered very generally interesting, from the fact that Mr. Wells entered fully into the diagnostic symptoms of ovarian tumour. A valuable paper by Mr. Paget on the treatment of tumours of bone was also read, in which enucleation was recommended for more general adoption than it receives at the present time. Mr. Paget was warmly received on this his first appearance in the Society since his recent illness.

VACCINATIONS IN BIRMINGHAM.

It has been repeatedly stated publicly that the consequence of the change of districts and of the system of public vaccination in Birmingham has been to cause a decrease in the amount of vaccination. This does not, however, appear to be the case, according to the following official statement of the successful vaccinations by public vaccinators.

	Year ending March.	Under one year.	Above one year.	Total.	Births.
Old system.....	1866	3237	690	3927	9053
	1867	3392	2066	5458	9040
	1868	3841	2026	5867	8752
Part old and part new system	1869	4056	1397	5455	8602
New system.....	1870	4850	850	5700	8518

OZONE AND ANTOZONE.

At the Chemical Society, on June 1st, Dr. Debus, F.R.S., gave an interesting lecture on ozone, which is abstracted in the *Chemical News*. The lecturer gave an historical summary of the experiments of Marignac and De la Rive in 1845, establishing the fact that ozone is, according to our present knowledge, an allotropic modification of oxygen, and referred to the circumstances which led Schönlein, Williamson, and Banneret to the conclusion that one form of ozone was a peroxide of hydrogen. For drying the gas to be examined, Williamson employed an ordinary chloride of calcium tube. It was not known in 1845 that the last traces of moisture cannot be removed from a gas unless the chloride of calcium tubes be very long. On the question whether there is another allotropic modification of oxygen, the so-called antozone, Dr. Debus observed that this substance is said to be formed either by the action of concentrated sulphuric acid on baric peroxide, or along with ozone when oxygen is submitted to silent electrical discharges; and one of its best characteristics is the property to assume, in contact with water, a cloudy appearance, and to oxidise the water to hydrogen peroxide. But an experiment of Messrs. Nasse and Engler shows that antozone is only peroxide of hydrogen vapour diffused through a very large quantity of air or oxygen. There exists, therefore, only one allotropic modification of oxygen—viz., ozone.

NEW YORK PHYSICIANS' MUTUAL AID ASSOCIATION.

THIS city, says the *New York Medical Journal*, has now an organisation under the above name and title, whose object is to afford pecuniary aid to the widows and children of its deceased members. In cases of special need aid is also furnished, from the interest of the permanent fund, to its members who may be disabled by sickness. The plan of giving aid is simple, effective, and speedy. It consists merely in levying an assessment of one dollar upon all those members admitted under the age of fifty years, and two dollars upon those over fifty years of age. The moneys so collected are paid over, without further inquiry, to the legal representatives of the deceased member. Should the circumstances of such representatives preclude the need of aid, and the moneys be returned to the Association, they are invested and become part of the permanent fund. The first donation of this kind was made recently by the widow of the late Dr. Thaddeus M. Halstead, the amount of assessments thus returned being upwards of three hundred dollars. Provision has also been made for the care of sick and destitute members, who may, at their option, avail themselves of the comforts and attendance afforded by either of the following named hospitals, with which arrangements have already been entered into by the trustees to carry out this end, viz.: the New York, German, St. Luke's, Mount Sinai, Roosevelt, Presbyterian, Brooklyn City, and Long Island College Hospitals. Like favour has also been granted by the New York Eye and Ear Infirmary, the Manhattan Eye and Ear Hospital, and the Brooklyn Eye and Ear Hospital. Altogether the purpose and plan of this organisation seem to us the wisest and simplest, and yet most effective, that could be adopted. The Association now numbers about three hundred members, and it is hoped that every physician of good standing in the city and vicinity will become connected with the Society, and thus contribute to the successful issue of so praiseworthy an object.

IRELAND.

By the death of Dr. Samuel Morton Hewitt of Dublin, a vacancy has occurred in the educational staff of the Royal College of Surgeons of that city, and also in that of the City of Dublin Hospital. To the former, we understand that Dr. Lambert H. Ormsby, both from his lengthened connexion with that institution, his success as a teacher, as well as on the principle of rotation, will probably be appointed. For the latter, Dr. Thornley Stoker, whose claims as demonstrator and also a successful teacher are well known, is at present the favourite.

ROYAL COLLEGE OF SURGEONS.

At the meeting of the Council on the 8th instant, upon the recommendation of the Museum Committee, Mr. James Frederick Goodhart of Guy's Hospital, and Mr. James Lidderdale of St. Mary's Hospital, were appointed Pathological and Anatomical Assistants respectively for the ensuing year. It was also resolved, "That the best thanks of this Council are hereby tendered to Dr. Thurnam of Devizes for his valuable donation of forty-six pathological specimens to the Museum of the College."

The nomination of the following offices was made by the Council; viz., the Professors and Lecturer, the Examiners in Midwifery, and the Examiners in Medicine.

The following gentlemen were elected Fellows of the College: Messrs. John Morgan Puddicombe of Dartmouth, and Edward Glover Bartlam of Broseley.

It was moved by Mr. BIRKETT, and seconded by Mr. PAGET, "That all legal opinions taken by the authority of the President or Council be laid before the Council at the earliest convenient period."

Mr. CHARLES HAWKINS gave notice of the following motion at the next meeting of the Council; viz.: "That a Committee be appointed to consider and report to the Council if any alteration should be made in the wording of the diploma now granted to members of the College, or in the mode of issuing such diploma."

APPROACHING COLLEGIATE ELECTIONS.

ON Monday last the time expired when candidates for seats in the Council of the Royal College of Surgeons were to send in their nomination-papers; and in a few days the Fellows will be informed that on Thursday, July 6th, the following Councillors, retiring in rotation, will offer themselves for re-election, viz., Mr. Edward Cock, Mr. George Busk, and Mr. Frederick Le Gros Clark. Mr. S. A. Lane, as already stated in the *BRITISH MEDICAL JOURNAL*, having resigned his seat, causes another vacancy. In addition to the above candidates, there will be, taking them in chronological order, Mr. T. Spencer Wells, one of the Honorary Fellows of the College, Mr. G. Critchett, and Mr. Barnard W. Holt, Fellows by examination, on December 24th, 1844, and August 12th, 1847, respectively.

Of the gentlemen offering themselves for re-election, it is only fair to state that they have done good suit and service in the College. Mr. Cock was elected on the Council in 1856, was an Examiner in 1867, and in 1869 deservedly obtained the highest honour in the College by election as its President. With these he may, it will probably be thought, be properly satisfied. Mr. George Busk, F.R.S., was elected on the Council in 1863, having previously filled the professorial chair of comparative anatomy and physiology; in 1868 he was elected an Examiner, and is now the senior Vice-President of the College. As a man of admirable administrative ability, high scientific attainments, catholic sympathies, and great independence of character, he has won golden opinions from those best qualified to judge, and made good his claim to re-election and the completion of his term of duties. Mr. Le Gros Clark was elected on the Council in 1864, and an Examiner in the present year; in 1868 he was appointed Hunterian Professor of Surgery and Pathology. The Senior Surgeon of St. Thomas's Hospital has fairly started on the round of College duties and offices, and has so far ably and conscientiously fulfilled them. He will no doubt be re-elected. Between the three candidates who follow, the choice for the two vacancies would be difficult, were it not that Mr. Spencer Wells and Mr. Critchett have the special claim which seniority in order gives where, as here, other qualifications are beyond dispute. Mr. Barnard Holt will probably be content to put in his claim now, awaiting election in due course next year. We do not imagine that he even desires to displace Mr. Wells or Mr. Critchett. But as Mr. Busk was pompously threatened by a humorous writer on these subjects in a contemporary, Mr. Holt probably felt it right to intimate that, in case of contingencies, he is the next man for the place—always a very good position to hold.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:
ANNUAL MEETING.

THE Thirty-ninth Annual Meeting of the British Medical Association will be held in Plymouth, on Tuesday, Wednesday, Thursday, and Friday, the 8th, 9th, 10th, and 11th of August next.

President—E. CHARLTON, M.D., D.C.L., Physician to the Newcastle-upon-Tyne Infirmary.

President-elect—JOHN WHIPPLE, Esq., F.R.C.S., Consulting Surgeon to the South Devon and East Cornwall Hospital.

An *Address in Medicine* will be delivered by GEORGE JOHNSON, M.D., F.R.C.P., Professor of Medicine in King's College, London.

An *Address in Surgery* will be delivered by JOSEPH LISTER, Esq., F.R.S., Professor of Clinical Surgery in the University of Edinburgh.

Notices of Motion.—The following notices have been given.

The PRESIDENT OF THE COUNCIL : Rule 4. To insert "President-elect", and to omit "Secretary".—Rule 6. To expunge this rule, and to substitute the following: "Each retiring President of the Association and President of Council shall be appointed a Vice-President for life by a vote of the members at the Annual Meeting."—Rule 7. To add "the Vice-Presidents" after President-elect; to insert the word "and" between President of the Council and Treasurer, and to erase "and the Secretary"; and to insert "such" between "at" and "other" in the fifth line.—Rule 8. In this and every rule where "District" is prefixed to Branch, to erase the word "District", and to erase the words "the Secretary of the Association".—Rule 9. To omit the words between "The President of the Council" and "shall be elected".—Rule 10. To omit the words between "The Treasurer" and "shall be elected".—Rule 11. To erase the words after "There shall be one paid Secretary" in first section, and to substitute "who shall reside in London, and devote his whole time to the business management of the Association and of the JOURNAL office". To erase the words "otherwise" in seventh line and "an annual or special" in eighth line, and to insert "each Annual Meeting".—Rule 13. To erase the words "Secretary shall call", and to substitute "President of Council shall direct to be called".—Rule 14. Between "shall" and "be recommended", to insert "express his desire in writing, and shall be".—Rule 15. To add "Members may be admitted on and after July 1st in each year, and the subscription for such part of a year shall be half a guinea". To erase the words after "each member" in eighth line, and to substitute "as long as his subscriptions remain unpaid, provided due notice shall have been given of such withholding".—Rule 16. To erase the words after "from his" in fourth line, and to substitute "liabilities to the Association".—Rule 24. In tenth line, to insert "a copy of the laws" between "Association" and "and".

Dr. STEELE (Liverpool): Election of Committee of Council. Every associate desirous of a seat on the Committee of Council shall send to the General Secretary, not later than months prior to the Annual Meeting of the Association, a declaration signed by himself, and in the following terms: "I, A. B., of C., member of the British Medical Association, hereby declare that I am a candidate for a seat on the Committee of Council of the said Association. (Signed) _____." Together with a nomination-paper signed by six members of the Association, in the following terms: "We, the undersigned, members of the British Medical Association, certify that A. B., of C., is a fit and proper person to be a member of the Committee of Council of the said Association." The names of the eligible candidates, with the names of the six associates by whom they shall have been respectively nominated, shall be published in the BRITISH MEDICAL JOURNAL not later than months prior to the Annual Meeting of the Association.

Mr. NICHOLSON (Hull): To alter Law 16, line 2. For "three", insert "two".

Gentlemen desirous of reading papers, cases, or any other communications, are requested to give notice of the same to the General Secretary at their earliest convenience.

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary*.
13, Newhall Street, Birmingham, June 13th, 1871.

SOUTH MIDLAND BRANCH.

THE annual general meeting of the above Branch will be held at the General Infirmary, Northampton, on Tuesday, June 27th, at 1 P.M.: Dr. WM. CLARK, President, in the Chair.

Gentlemen intending to read papers (not to exceed fifteen minutes in reading), are requested to send the titles forthwith to Dr. Bryan, Honorary Secretary.

Dinner will be provided at the Angel Hotel, at 4 P.M.; charge, 6s., including dessert and waiters; and gentlemen who intend to be present, are requested to let me know on or before June 23rd.

Members whose subscriptions are not yet paid, are earnestly requested to pay them at or before the annual meeting.

J. M. BRYAN, M.D., *Honorary Secretary*.
Northampton, June 1871.

LANCASHIRE AND CHESHIRE BRANCH.

THE annual meeting of the above Branch will be held at the Medical Institution, Liverpool, on Wednesday, June 28th, at 12 o'clock. *President*, Dr. SPENCER, Preston; *President-elect*, Dr. DESMOND, Liverpool.

The dinner will take place at the Adelphi Hotel at 4.30 P.M. Tickets (exclusive of wine), 6s. each.

Papers and cases of interest will be communicated by Dr. Nevins, Mr. Bickersteth, Dr. Haddon, Dr. Drummond, Dr. Lyster, and Dr. Glynn.

REGINALD HARRISON, *Honorary Secretary*.
51, Rodney Street, Liverpool, June 14th, 1871.

SOUTH EASTERN BRANCH.

THE twenty-seventh annual meeting of the above Branch will be held at the Steine Hotel, Worthing, on Friday, June 30th, at 2 o'clock; Dr. TYACKE, Senior Physician to the Chichester Infirmary, in the Chair.

Dinner will be provided at 4.30; charge, exclusive of wine, 7s.

Members can introduce friends. Those who may intend to join the dinner, will oblige by informing me by the 28th instant.

G. FREDK. HODGSON, *Honorary Secretary*.
52, Montpellier Road, Brighton, June 1870.

EAST ANGLIAN AND CAMBRIDGE AND HUNTINGDON
BRANCHES.

THE annual meeting of the above Branches will be held at the Norfolk and Norwich Hospital, Norwich, on Friday, June 30th, at 2.30 P.M.; P. EADE, M.D., President.

Gentlemen wishing to read papers, are requested to send the titles to one of the Honorary Secretaries; and those members who purpose being present at the dinner, are requested to communicate their intention as early as possible, so that the necessary arrangements may be made.

Notices have been received of the following communications to be read at the meeting: Dr. Humphry, F.R.S., *Reminiscences of Surgery in the Norwich Hospital five and thirty years ago*; Dr. Durrant, *On a Medical Subject*; Mr. Cadge, *On Ovariectomy*; Dr. Bradbury, *Notes of a Case of Hæmoptysis, with Remarks*; Mr. Crosse, *On Accidents in Lithotomy*; Dr. Bateman, *On Obscure Diseases of the Cæcum*; Mr. Robinson, *On Intra-ocular Malignant Growths*.

Dinner at the Norfolk Hotel at 5.30 P.M. Tickets, 12s. 6d. each.

J. B. PITT, M.D., Norwich.
B. CHEVALLIER, M.D., Ipswich.
J. B. BRADBURY, M.D., Cambridge. } *Honorary Secretaries*.

NORTH WALES BRANCH.

THE twenty-second annual meeting of the above Branch will be held at the Castle Hotel, Ruthin, on Tuesday, July 4th, at 12 o'clock; J. R. JENKINS, M.D., President.

The dinner will take place about 4 P.M., at the usual charge.

Gentlemen having papers or cases to communicate, and who intend dining, will much oblige by sending early intimation to the Secretary.

D. KENT JONES, *Honorary Secretary*.
Beaumaris, June 14th, 1871.

WEST SOMERSET BRANCH.

THE annual meeting of the above Branch will be held at the Royal Clarence Hotel, Bridgewater, on Tuesday, July 4th, at 2 P.M.; J. CORNWALL, Esq., Ashcott, retiring President; W. H. AXFORD, M.B., Bridgewater, President-elect.

The dinner-hour is fixed at half-past five o'clock. Tickets 5s. each, exclusive of wine and waiters.

Gentlemen intending to be present, or wishing to read papers, are requested to inform the Secretary on or before the 30th instant.

W. M. KELLY, M.D., *Honorary Secretary*.
Taunton, June 14th, 1871.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE first annual meeting of the above Branch will be held on July 5th, at the Swansea Hospital, at 1.30 P.M.: *President*, GEORGE PADLEY, L.R.C.P. Lond.

Dinner will be provided at the Mackworth Hotel at 5 P.M. Tickets, 6s. 6d. each.

Members desirous of reading papers or notes of cases, are requested to communicate the titles at as early a date as possible to one of the undersigned.

A modification of Rule No. 2 of the Branch will be proposed at the meeting.

The Council will meet at 12.30 P.M.

Members of the Branch may introduce members of the profession to the annual meeting and dinner.

All members intending to join the latter, will oblige by sending to one of the Honorary Secretaries a communication to that effect on or before the 30th inst., so that arrangements may be made and tickets reserved.

A. DAVIES.
A. SHEEN, M.D. } *Honorary Secretaries.*

June 14th, 1871.

METROPOLITAN COUNTIES BRANCH.

THE nineteenth annual meeting of this Branch will be held at the Castle Hotel, Windsor, on Friday, July 14th, at 3 P.M. *President for 1870-71*, T. HECKSTALL SMITH, Esq., F.R.C.S.; *President-elect for 1871-72*, J. RUSSELL REYNOLDS, M.D., F.R.S.

Dinner at the Hotel at 5.30 P.M.

A. P. STEWART, M.D.
ALEXANDER HENRY, M.D. } *Honorary Secretaries.*

75, Grosvenor Street, June 13th, 1871.

REPORT OF MEETING OF COMMITTEE OF COUNCIL:

Held at the Queen's Hotel, Birmingham, June 6th, 1871.

PRESENT:—W. D. Husband, Esq., F.R.C.S., in the Chair; Dr. Falconer, Mr. Whipple, Dr. Chadwick, Mr. Heckstall Smith, Mr. Wheelhouse, Mr. Nicholson, Mr. Fowler, Dr. Littleton, Mr. Clayton, Dr. Bryan, Mr. Bartleet, Dr. E. Waters, Dr. A. Waters, Dr. Stewart, Dr. Wilkinson, Mr. Fleischman, and Mr. Williams, General Secretary.

A Deputation attended from the Birmingham and Midland Counties Branch, and presented an invitation to the Association to meet in Birmingham in 1872.

The Report from the Laws Committee was read and approved, together with the proposed alterations to be brought forward at the next Annual Meeting.

The following resolutions, passed by the Subcommittee of Branch Secretaries, were read and approved of.

1. That the Branch Secretaries should undertake the collection of the subscriptions of the members of their respective Branches until the end of November in each year.

2. That, from the evidence before this Committee, it is desirable that the circulars of Branch Secretaries collecting subscriptions of the Association should be issued at stated times and in an uniform manner, viz.:—

Circular A in the month of January.

Circular B in the month of April.

Circular C in the month of July.

Circular D in the month of October.

3. That, at the commencement of each of the above months, the General Secretary do remind the Branch Secretaries, by letter, to send the necessary circulars, and do supply the Branch Secretaries with the proper forms.

4. That, at the end of November, each Branch Secretary do send to the General Secretary a complete list of members of his Branch, distinguishing those who have paid from those who have not paid.

5. That, in the first week in December, the General Secretary do issue circulars to those Branch members then in arrears, reminding them of Laws 15 and 16, according to which the JOURNAL will be stopped at the end of the year unless the arrears be paid by that date.

6. That the General Secretary be charged with the collection of the subscriptions of all members not in Branches, and that he do issue circulars to those members at the same time and in the same manner as above prescribed.

7. That the circular of the General Secretary sent out to members of Branches in the beginning of December contain an instruction to pay the subscriptions to the Branch Secretaries; and that the Branch

Secretaries inform the General Secretary, on or before the 31st of December, of any subscriptions so received.

8. That Mr. Hodgson, Mr. Fleischman, Mr. Nicholson, and Mr. Ernest Hart do form a Subcommittee to draw up suitable forms of the above mentioned circulars.

The Committee of Council also resolved—

That Dr. Merryfield be invited to read a paper on the "Meteorology of Plymouth for the last Six Years" at the Annual Meeting; and

That the President of Council, the Treasurer, and the General Secretary be requested to prepare the Annual Report.

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary.*

13, Newhall Street, Birmingham, June 13th, 1871.

EAST YORK AND NORTH LINCOLN BRANCH.

THE Annual Meeting of the above Branch was held on May 31st, 1871, at the Hull General Infirmary; J. A. LOCKING, Esq., President, in the Chair.

The Report of the Committee upon the Fortnightly Meetings was read and adopted.

New Members.—The following gentlemen were elected to the Branch: J. Brownridge, Esq.; T. M. Evans, Esq. (Hull); Wm. Hammond, Esq.; F. J. Hammond, Esq. (Howden); J. Plaxton, Esq. (Hull); R. B. Low, M.D. (Burringham, Doncaster); J. Savage, Esq. (Swinefleet, Goole).

Officers.—The following were elected:—*President-elect*, J. F. Holden, Esq.; *Secretary and Treasurer*, Robt. H. B. Nicholson, Esq.; *Committee*, Sir H. Cooper, M.D., R. M. Craven, Esq., K. King, M.D., G. F. Elliott, M.D., H. Gibson, Esq., W. J. Lunn, M.D., and G. Lamb, Esq.

Members of Council.—It was resolved to leave the election of the two gentlemen to the Committee.

Representative on Parliamentary Committee.—Sir H. Cooper was elected.

Quarterly Meetings.—The President proposed, and Dr. K. King seconded, a slight alteration in Law 4, so as to allow of Quarterly Meetings being held.—This was carried.

Papers and Cases.—The following were read:—1. Introductory Remarks. By J. A. Locking, Esq.—2. Malignant Tumour of the Leg, requiring amputation, in an Infant fourteen weeks old.—By K. King, M.D.—3. Medical Thermometry. By G. F. Elliott, M.D.—4. Case of Molluscum Pendulum. By R. M. Craven, Esq.—5. Case of Fragilitas Ossium. By W. J. Lunn, M.D.

A Dinner was held at the Victoria Hotel at the termination of the proceedings.

MIDLAND BRANCH: ANNUAL MEETING.

THE Annual Meeting of this Branch took place at the Infirmary, Derby, on June 8th; WILLIAM OGLE, M.D., President, in the Chair. Upwards of thirty members attended.

Business.—The Report for the past year having been read, it was decided that the Annual Meeting in 1872 should be held in Nottingham; and Dr. W. Tindal Robertson was chosen as President-elect. The following gentlemen were appointed Secretaries:—T. Blunt, M.D. (Leicester); C. Harrison, M.D. (Lincoln); J. White, Esq. (Nottingham); and A. H. Dolman, Esq. (Derby).

An Address was delivered by the President; and papers, of which notice had been given, were read by Mr. T. Sympson, Mr. G. Elder, Dr. Hitchman, and Mr. J. W. Baker.

Dinner.—At 5 P.M., the members and their friends, numbering together forty-one, adjourned to the Midland Hotel and enjoyed a capital dinner.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 16TH, 1871.

J. COOPER FORSTER, F.R.S., Vice-President, in the Chair.

THE following report of the Committee appointed to consider the subject of lardaceous or amyloid disease was read. "The analyses by Dr. Marcet, whose report is appended, show that the organs which have been examined as presenting the alterations in question are considerably deficient in potash and phosphoric acid, while they contain an increase of soda, chlorine, and cholesterine. Where the tissue is exten-

sively affected, it is rendered much less soluble in water than in its normal condition, the insoluble portion, which is nitrogenous, being readily soluble in potash. When iodine is brought into contact with the affected structure, it enters into combination with a peculiar nitrogenous substance, by which the tissue is pervaded, and produces the reddish-brown reaction familiarly known. When the lardaceous change is incomplete, the nitrogenous material which gives the reaction can be extracted by water. Both the iodine reaction and the substance to which it is due have been investigated, together with the relationship existing between this substance and a solution of fibrin in dilute hydrochloric acid. The Committee suggest that the term *lardaceous* should be adopted by the Society."

Drs. MURCHISON and BASTIAN reported on Dr. Sutton's case of supposed Small-pox in the Fœtus. They could not confirm the opinion as to the nature of the disease.

Dr. GREEN, reporting on Mr. Morris's specimen of Tumour of the Fibula, confirmed the statement as to its being a specimen of round-celled sarcoma.

Dr. BRISTOWE reported on Dr. Dickinson's specimen of Tumour of the Mesenteric Glands. The mass consisted of fibrous tissue and fat, with cartilage and bone. Its cysts were lined with ciliated epithelium, and contained mucus.

Dr. BRISTOWE reported on Dr. Risdon Bennett's Tumour of the Lung. He confirmed the report handed in.

Dr. BRISTOWE read a report on Dr. Tilbury Fox's specimen of Madura Foot. He found the foreign matter fungoid, thus confirming Mr. Carter's opinion.—Dr. TILBURY FOX said that in a former specimen no trace of fungus could be found.

Mr. HULKE confirmed the report made by Mr. West as to the nature of a Tumour of the Upper Jaw which he had exhibited.

Dr. CHURCH read a report on Mr. Spencer Watson's specimen of Epithelioma of the Cheek with Cysts. He confirmed the account given by Mr. Watson.

Dr. CAYLEY reported on Mr. T. Smith's Tumour of the Mamma. Some portions were scirrhus.

Mr. ARNOTT read a report on Dr. Whipham's specimen of Columnar Epithelioma of the Liver. He confirmed Dr. Whipham's account of the structure. It was, however, mixed up with ordinary cancer.

Dr. MARCET then gave some account of the Chemical Reaction of Amyloid Material. The body was colloidal, and highly nitrogenised. It existed in fatty as well as in amyloid disease.

Mr. GAY exhibited Tumours removed for the second and third times from the buttock of a woman. At first the tumour seemed myxomatous, but on the third recurrence it was plainly fibroid, with some myxomatous structure.

Dr. BRISTOWE exhibited two specimens of Malignant Tumour of the Oesophagus. In one case, the patient died from the disease opening the left common carotid.

Mr. W. ADAMS showed a Fibroid Tumour which had projected into the mouth and impeded the jaws from the Hard Palate. The patient was a female, aged 40, and the tumour had existed for six years. It was supposed to be an exostosis, but came away easily with the gouge. There were no myeloid bodies in the tumour.

Mr. MAUNDER exhibited a specimen of Axillary Aneurism in the first part of the vessel. The subclavian was tied in the third part of its course, but the patient died on the eighth day after the operation. He had tied the vessel after Lister's method. The aneurism was filled with clot.

Dr. RISDON BENNETT showed a specimen of Intrathoracic Growth from a female, aged 17. She had become ill twelve months previously. After death it was found that the lungs contained peculiar deposits. These had been examined by Dr. Sutton, who reported on them. There was a large growth in front of the pericardium, apparently rising from or in the site of the thymus. It attacked the pericardium and the lungs at their sides, and surrounded the trachea. The glands were enlarged throughout the body, and there were deposits in the liver and kidney as well as in the spleen. The structure of these masses was lymphoid. The masses in the lung were similar.

Dr. EDWARDS CRISP exhibited some Casts illustrative of Diseases of the Eye in the Lower Animals. Cataract is not, he said, very common in monkeys, but is prevalent among lemurs and bears. Marsupials are still more frequently affected. Birds and reptiles often suffer from opacity of the cornea, but cataract does not occur in these. It is common in dogs and horses.

Dr. PAYNE exhibited an Enlarged Spleen and Lymphatic Glands from a case of Hodgkin's disease. The case had presented during life the usual symptoms of the disease, but there was no lymphatic tumour visible externally. Death took place after marked febrile symptoms. After death the spleen was found to be very large, and it contained the

usual "lymphadenoid" growths. Many lymphatic glands, especially those of the thorax, were enlarged; some parts of them contained crumbling, caseous masses, and thus resembled what are commonly called scrofulous glands. The chief interest of the case, however, lay in the fact that the lungs, pleuræ, and membranes of the brain were affected with acute tuberculosis, being studded with grey miliary tubercle, confirming, to a certain extent, the views of those who believe that miliary tubercle depends upon the previous existence in the body of caseous masses. It also supplied a transition between the peculiar enlargements of glands first distinguished by Dr. Hodgkin and the so-called scrofulous affections.

Dr. PAYNE also exhibited a Tumour, removed by Mr. Spencer Smith, from the breast of a female whose family history was cancerous. The hard central mass was not distinguishable from scirrhus cancer, while the surrounding cysts contained a highly vascular villous growth, precisely resembling the "villous cancer" of Rokitsky, described by that pathologist as usually, though not always, occurring on the inner surfaces of hollow organs.

Dr. CRUCKNELL exhibited a curious Malformation of the Gall-bladder, from a man who had been a patient in the Great Northern Hospital. There were two openings in the bladder, so placed that the whole of the bile must have passed through it.

Dr. MURCHISON exhibited the Kidneys of a patient who had died of Acute Uræmia in the Middlesex Hospital. The youth, aged 18, had suffered from no bad symptoms until his fatal illness. Ten days before admission he had sudden pains in the back; five days afterwards he was drowsy, but did not take to bed; and in five days more he was taken to the hospital, when he looked stupid, and his tongue was dry and brown. His pulse was not quick; his temperature was 96 deg. There was no dropsy nor anæmia; his urine was limpid, specific gravity 1007, and contained a small trace of albumen. Purgatives, with digitalis and potash, were given at first with good effect, but he gradually became worse, and ultimately died from convulsions and coma. His blood was dark. His kidneys weighed 1½ oz. and ¾ oz. respectively. The appearance was not that of an ordinary granular kidney, but was rather lobular. Perhaps some of the vessels were obstructed. The tubes had not been examined.

Mr. WYATT exhibited a specimen of Perforating Ulcer of the Stomach, causing speedy death from hæmorrhage; an Amputated Hypospadian Penis; and several specimens of Gunshot Injury from Paris. He said that excision of joints near to which a bullet had entered, entirely failed, owing to the extensive splintering produced. There were also preparations showing the possibility of securing a bleeding vessel in a suppurating wound, and certain injuries to the sciatic nerve found in connection with acute purulent œdema of the limb.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 23RD, 1871.

T. B. CURLING, ESQ., F.R.S., PRESIDENT, IN THE CHAIR.

ON PARTIAL ACUTE IDIOPATHIC CEREBRITIS.

BY CHARLES ELAM, M.D.

THIS paper was intended as a continuation of one read during the last session of the Society on General Acute Cerebritis, showing some remarkable points of contrast between the two affections. The author referred briefly to the description given of general cerebritis. Although the anatomical characters of the cases were in some respects different, yet they were all true cases of inflammation of brain-substance, uncomplicated with meningitis, the differences arising from the varying periods at which death occurred. Amongst special symptoms, it was noticed that in general cerebritis the pulse was unaffected at the commencement; whilst in partial cerebritis, it began with extreme depression, followed by great rapidity and subsequent irregularity. The tongue is much more affected, and the organic complications are much more aggravated and numerous, in the partial than in the general form. The most striking feature in the history of partial cerebritis was the occurrence of remissions in the course of the disease, often very marked. This was illustrated by some cases both of constitutional origin and arising from external violence. In two of these, where the patients had been for some time apparently moribund, there was so entire a remission of all the symptoms that for some hours nothing could be detected indicative of any disease whatever. One was a case of fracture of the skull, where there was a fissure extending from the middle of the left parietal bone down to the foramen magnum. This kind of remission, combined with the previous history, was shown to be characteristic of this disease, and to distinguish it from all others. The disease differed from the various forms of "softening", thus: 1. From

the apoplectic form, in the absence of aphasia and paralysis, as well as other general features of progress; 2. From the convulsive form, in the absence of epileptiform attacks at the beginning, and the greater constancy and duration of the convulsions when established later on in the affection; 3. From the delirious form, by the mode of invasion, which was never by delirium; and by the less marked character of this symptom throughout. The pathological features also differed. Besides many other important differences, the section was distinctive, being depressed in partial cerebritis; very often elevated, as though swollen, in softening. The general aspect of the disease made it most liable to be confounded with typhus. From this it was distinguished by the mode of invasion, and the marked preponderance of active brain-symptoms. The etiology was closely allied to constitutional cachexiæ, chiefly of a tubercular nature, and to hereditary predisposition. The prognosis was very unfavourable; but there were considerations, both clinical and pathological, that led to the conclusion that it is not always fatal.

In treatment, although little could be done of a *curative* nature, there was a fact which was occasionally of very high importance. For business or family reasons, it was often especially desirable to obtain a few hours of clear intelligence. This occurred in the remissions already referred to; and the practical point in question was—that this remission might be often ensured in the early and middle stages of the disease by a smart purgative, as a drop of croton oil, with or without a few grains of calomel. It had little influence on the general progress or ultimate issue of the disease; but the effect for the time was frequently marked and unquestionable.

Tabular view of the contrasts between General and Partial Acute Idiopathic Cerebritis.

GENERAL CEREBRITIS.	PARTIAL CEREBRITIS.
1. Described as inflammation of the brain-substance alone, the meninges being unaffected.	1. Never confined to the brain-substance alone. Meningitis, local or general, always present.
2. Extending through the whole substance of the encephalon except the meninges.	2. Partial; generally a small patch, limited to portion of one side; usually superficial.
3. Occurs usually between the ages of eight and thirty, never after thirty-five.	3. Rarely, if ever, occurs before the age of forty.
4. Invasion by vomiting.	4. Invasion by fainting, or a very slight apoplectiform seizure.
5. Termination always in death.	5. Very fatal, but perhaps not so uniformly so as the "general" form.
6. Symptoms comparatively mild, and wanting in general significance. Progress uniform and uninterrupted from commencement to death, which occurs between the second and twelfth day.	6. Symptoms most varied and severe. Progress never uniform, but broken by remissions, sometimes so complete as to simulate perfect restoration to health. Duration from three to six weeks.
7. No prodromata.	7. Prodromata always present; sometimes of a somatic, sometimes of a psychical order, or both.
8. Generally no paralysis.	8. Some marked weakness, but variable and dubious.
9. No convulsions, until very near the close.	9. Convulsions always present, at some, and generally at an early, period of the disease; persistent to the end.
10. Coma only occurs at the close of life.	10. Coma occurs early, sometimes as the earliest symptom; departs and recurs irregularly.
11. Delirium mild and inconstant.	11. Delirium more irritable and violent; often muttering; not constant.

Dr. SUTTON asked if Dr. Elam had made necropsies in his cases of supposed idiopathic cerebritis, and if he examined the internal ears of the patients. Pathologists generally considered that cerebritis was dependent on some injury to the head, or on disease of the cranial bones, disease of the ear, or some pre-existing disease either in the brain or in other parts of the body.—Dr. ELAM said that twelve or more similar cases had been noted, in all of which remarkable intermissions had been observed; but in none to quite the same extent. In relating the cases, the absolute phenomena had been stated, and afterwards contrasted with those that were found described in systematic treatises on affections of the brain. Hence arose the diagnostic marks quoted as distinguishing between the affection under consideration and the various forms of softening of the cerebral substance heretofore de-

scribed. He had not been in the habit of investigating the internal ear in these cases.

BONY ANKYLOSIS OF THE KNEE-JOINT TREATED BY SUBCUTANEOUS SECTION OF THE BONE. BY LOUIS STROMEYER LITTLE, F.R.C.S.

(Communicated by the PRESIDENT.)

The author in this paper gave an account of a case of bony ankylosis of the knee-joint in a child aged 14, in whom the limb was fixed at a right angle. The ankylosis was divided subcutaneously by means of a carpenter's chisel, and, by an extending apparatus, the limb was straightened so as to allow locomotion three weeks after the operation. The author discussed the plan of dividing the long bones by means of a saw for the cure of deformity; and concluded that for bony ankylosis of the knee-joint, subcutaneous osteotomy by means of a saw was impracticable. The case was believed to be the first instance where subcutaneous osteotomy has been performed in this country for the relief of bony ankylosis of a large joint.

Mr. CARR JACKSON thought that excision of the knee-joint would be impracticable in complete bony fusion.—Mr. SAVORY said that the success of the operation which had been described was no doubt due to the fact that, after the limb had been straightened, the knee-joint again became firmly ankylosed. Anything like useful motion of the joint in such cases was out of the question, and, had the tibia remained moveable on the femur, the limb would have become more or less useless. The result of long-continued disease of the knee-joint—extreme flexion, partial dislocation backward, and rotation outward of the leg upon the thigh—was a deformity which could scarcely be permanently remedied by any apparatus, and in many of these cases excision had been resorted to as the sole available means.—The PRESIDENT, having assisted at the operation performed by Mr. Little, bore testimony to the fidelity of the description of it in the paper, and to its success in restoring an useful limb. Had Mr. William Adams been present, the President would have inquired whether he had heard of Mr. Little's operation on the knee before performing, a year afterwards, a similar operation on the hip-joint.—Mr. CARR JACKSON believed that Mr. Adams was acquainted with Mr. Little's operation.—The PRESIDENT thought then that the success of Mr. Little's case must have given Mr. Adams great encouragement and confidence in undertaking his operation. As Mr. Little was in a distant country, and as he (the President) had communicated the paper, he felt called on to support and vindicate Mr. Little's claim to originality in performing a subcutaneous operation on a completely ankylosed joint for rectifying the position of the limb.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, MAY 20TH, 1871.

R. DRUITT, M.R.C.P., President, in the Chair.

A PAPER by Mr. W. F. LOWNDES, on the Burial of Still-born Children, was read by Dr. Ballard. The paper gave the details of the writer's visits to seven of the principal cemeteries in Liverpool. The general results at which he arrived were: that the fact of the fees varying from 1s. 6d. for still-born, to 7s. 6d. for children that had lived, gave rise to falsification of certificates; that of the total number of certificates, one-half were those of midwives, who, it was evident, were of the very lowest class; and that there was no penalty under any Act for giving a false certificate. Hence he urged the necessity of an alteration in the law, so as to make the registration of births compulsory, to enforce the registration of still-born children, and to bind the midwife or father to see to such registration under a penalty.—A short discussion took place between Dr. Tripe, Dr. Drutt, Dr. Hardwicke, Dr. Ballard, and Mr. Holland, in which it was admitted that the same abuses existed in London, and that there was need of more stringent regulations.

Dr. LETHEBY read a paper on the Quality of the Water-supply of some of the Large Towns of England and Scotland in relation to their Sanitary Condition. In the course of large professional experience on this subject, his attention had been especially directed to the comparative value, in a sanitary point of view, of hard and soft waters. The result of his investigations was an unmistakable advantage in favour of a moderately hard water, such water being not only brighter, cooler, and more sparkling, but also less likely to absorb organic miasms, and to become charged with living organisms. In addition to this, there was strong evidence that the calcareous matters of such waters were of physiological value to the animal system. The matter had lately been commanding attention in Edinburgh, and had drawn forth from the pen of Dr. Wilson a series of letters in the *Scotsman*. These he would submit in an abbreviated form, with his own comments. First, lake-water is vapid, mawkish, unærated as regards carbonic acid, of unstable tem-

perature, and so prone to be loaded with organisms as to have been regarded with repugnance in all times. In proof of this, he adduced the authority of Frontinus, Curator of the Roman Aqueducts in the first century; and of Fabretti, at the close of the 17th. At Boston, it was found that the water brought from Lake Cochituate was bad on account of animalcules. Dr. Letheby disagreed from the idea of Dr. Frankland, that the fias in the water of St. Mary's Loch could do no harm to the human system. He quoted from the evidence of Mr. Homersham, C.E. (Report of the Royal Commission), to the effect that the soft water of Manchester was injurious. Among foreign authorities, Moleschott attributed frequent diarrhoea in the Netherlands to the still-running river water; Boussingault asserted that the saline substances in water were necessary for alimentation; Dupasquier, Riche, Osterlein, Poggiale, Boudet, Tardieu, Lefort, Bouchardat, Agassiz, and other eminent men, also spoke to the same effect. As to the variability of temperature of lake-waters, and the uniform coolness of spring water, the evidence of MM. Commaille and Lambert at Rome were adduced. There were, it was true, objectors, but they were few, and their statements incomplete. The best and tallest men were to be found over the lime and coal formations, and drank hard water. The same was the case with the Patagonian savages, the most gigantic of the human race. Experience showed that the same was the case with cattle, sheep, and horses; the finest came from hard water districts. Government Commissions in England, France, and Austria, had declared in favour of hard water, and condemned the misapplication of the chemical impurity to minerals found to be universally present in natural springs and streams. A more striking fact than all was the high death-rate in soft water districts.—A discussion followed, in which Mr. Radcliffe, Mr. Holland, Dr. Tripe, Dr. Rygate, Dr. Tidy, Dr. Stevenson, Mr. Lord, Mr. Wanklyn, Dr. Druitt, and others, took part. Dr. Letheby having replied, the meeting, the last of the present session, terminated.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS, IRELAND.

WEDNESDAY, APRIL 26TH, 1871.

HENRY KENNEDY, M.B., in the Chair.

DR. HENRY EAMES reported a case of Leucocythæmia. The patient was a stone-cutter, aged 35. Five years ago, he was suddenly seized with a violent pain in the left hypochondriac and lumbar regions. Subsequently he had troublesome attacks of vomiting after or during meals. However, he remained tolerably well until January 1870, when a large tumour made its appearance in the left part of the abdomen after a severe cold. Diarrhoea then set in, and the stools were often jelly-like. He suffered from similar recurrent attacks during the remainder of last year, and, at times, from intense pain in the left side. Otherwise, the tumour gave him no annoyance, except from its increasing weight. The diagnosis of leucocythæmia was made in England. When admitted to hospital, the patient's skin was yellowish, but the conjunctiva were clear. Some œdema about the ankles and legs was present, and increased considerably when he was long in the upright position. He was not very anæmic in appearance. There was no cardiac murmur. The abdomen was much enlarged, measuring thirty-four inches and a quarter in circumference at the level of the umbilicus, and thirty-seven inches half way between that and the ensiform cartilage. The entire left half of the abdomen was dull on percussion, and the right edge of a vast tumour could be distinctly felt, running down from the ensiform cartilage, a little to the left of the mesial line, to the symphysis pubis. Two well-defined sulci were observable in its right border. The blood showed a simultaneous decrease of the red discs and increase of the white cells, the estimated proportion being one of the latter to three of the former. Of thirty-five ounces of urine, the quantity passed in a selected period of twenty-four hours, two samples were analysed. The first was slightly acid, and its specific gravity was 1.015.7. The solid matter amounted to 4.31 per cent.; the urea to only 1.06 per cent. The second specimen contained 4.9 per cent. of solid matter, and 1.08 per cent. of urea. The deficiency in the quantity of urea was very remarkable in this case. The patient was presented to the meeting, and specimens of his blood were exhibited under the microscope.

Dr. GRIMSHAW read an account of a case simulating Typhoid Fever. A labourer, aged 24, was admitted on March 23rd last, having been four or five days ill. He had all the symptoms of typhoid fever: diarrhoea, ileo-cæcal tenderness, high pyrexia, the pulse being 120, and the temperature 103.5 deg. There were also rose-spots scattered over the abdomen. On the 27th, in the afternoon, sudden intense pain set in in the abdomen, the legs were drawn up, the feet became cold, and the pulse sank. These symptoms of perforation were speedily followed by

extreme collapse, and the patient died in a few hours. On *post mortem* examination, considerable evidences of peritonitis were observed. On the internal surface of the intestine, no ulcerations appeared, but there were numerous patches of hyperæmia. In the vermiform appendix, however, a perforating ulcer was discovered, and in its neighbourhood a foreign body or concretion was found. This proved to be composed in great measure of the calcium and ammonium phosphates. The man died on the ninth day of his illness.—In the course of the discussion that followed, the Chairman remarked that the case seemed to him to have been one of essential fever.—Dr. DUNCAN took the same view, and asked whether the early date of death in the illness might not explain the absence of the usual appearances of ulceration of Peyer's patches.—Dr. GRIMSHAW briefly replied, and the Society adjourned.

CORRESPONDENCE.

CLUB ELECTIONS.

SIR,—In answer to Mr. Manley's letter on club elections, I think that, when the facts are truly stated, Messrs. Duncalfe and Evans will not appear quite so black as Mr. Manley has painted them. The following statement will explain the unfortunate transaction.

On Monday, June 5th, at 5.30 P.M., a deputation from the Committee of the Trinity Church Sick Society called at my surgery to say they were going to elect a surgeon to the Society that evening, at three shillings a member *per annum*, and to ask if I would be nominated. In my absence, my sister, from previous knowledge that I held such contracts at the terms stated, sent an answer to this effect—"that if Mr. Evans were elected by the majority of the members he would accept the appointment." Had I received the application in person, I should only have consented to be put in nomination on the same terms with Mr. Manley. I very much regret the mistake; and if Mr. Manley had asked for an explanation, instead of denouncing me in such ungentlemanly terms to my partner, I should have offered him an ample apology. I am, etc., ALFRED P. EVANS.

West Bromwich, June 12th, 1871.

P.S. I send letters from the Chairman and the Committee's deputy, if you will kindly insert them.

The Hollies, West Bromwich, June 12th, 1871.

Dear Sir,—I am in receipt of your favour of the 10th inst., and copy of the BRITISH MEDICAL JOURNAL containing Mr. Manley's letter. In reply to your question, I, as Chairman of the meeting to which Mr. Manley refers, beg to inform you that I have looked at the minutes of that meeting, which were taken down at the time, and find therein no statement of any application having been made either by Mr. Duncalfe or yourself for the post of surgeon to the Club referred to.

It appears by the minutes that a resolution appointing you surgeon to the Club was proposed; but that an amendment was carried, to the effect that Mr. Manley should be the surgeon for the ensuing year if he would accept the office at three shillings per member; and, on his consenting to do so, he was unanimously re-elected.

Yours very truly,

FRED. C. JONES.

A. P. Evans, Esq.

West Bromwich, June 12th, 1871.

Sir,—I beg to say that I was deputed by the members of Trinity Church Friendly Society to see and ask you if you would become the surgeon to the Society. When I called you were not at home; but I saw your sister, who afterwards sent me a note to say you would, no doubt, do it; and on the strength of that I nominated you, and your name was very well received by the members present. To show that I did not take the matter up on my own responsibility, the members passed a resolution that if I were not back when my name was called I was not to be fined when the roll was called over. You can make use of this if you think proper. I am, yours truly,

To Mr. Evans, Surgeon.

C. BASSETT.

SIR,—Mr. Manley's letter asserts that the "episode in the history of club elections" therein described ends the last trace of any material good as the result of our recent agitation. *Ex uno disce omnes* will not be fair to us in Wolverhampton. A large club in this town having determined to change their doctor, gave the customary notice, and took steps to appoint a successor. The election took place last week; and I hear from members of the Committee that they were obliged to re-elect the old one, because none of those who had been invited to apply for the vacancy would accept the office for less than five shillings per head *per annum*, and they were determined not to give more than four shillings, the old rate.

Instead of Dr. Heslop's movement having failed—so far at least as regards this town—its effects upon club practice have been most beneficial, morally and pecuniarily. The ordinary rate of remuneration has been raised from three to four shillings, and a large number of clubs pay five shillings. No member of the Wolverhampton Friendly Medico-Ethical Society has accepted, or will accept, any appointment at a lower rate than that last mentioned. It is true there are two or three practitioners who are ready to take clubs at a lower rate; but as they think their services overvalued at five shillings a year, they probably get as much as they are worth, and their competition enhances the esteem in which those who require a more adequate recompense are held.

I am, etc., FRED. TURTON, L.R.C.P. Lond.
Ablow House, Wolverhampton, June 13th, 1871.

MORTALITY OF CONVICT PRISONS.

SIR,—Will you kindly allow me to return briefly to this subject in your columns? The only point brought forward by Dr. Rendle in what he terms his answer (in the JOURNAL of the 27th ult.) to my letter, is that of "medical pardons", whose evidence is anything but trustworthy. I am sure he ought to know that in 1857 the Secretary of State called attention to the abuse of "medical pardons" which then existed, and said that those so pardoned frequently returned to prison in a short time with fresh sentences; and the fact that few now escape in this way shows the wisdom of the authorities in discouraging such recommendations. Yet Dr. Rendle tabulates such pardons with deaths, calls the results facts, and thinks he has proved his case! In my letter I said that "*if comparisons were to be drawn on Tables I and II, quinquennial periods (beginning with the five years in Table II) would be more legitimate than if the mere 'abolition of the hulks' were taken as the basis of contrast*". I now see even more clearly the utter uselessness of making comparisons upon such a turning point.

The question with which we are dealing divides itself into two parts: first, what relation does the mortality of more recent years bear to that of the years which preceded them? and secondly, if there be any difference, what causes or conditions can be brought forward to account for that difference? The two parts must necessarily be considered side by side, the one being as it were the complement of the other; and it is worse than useless to attempt to treat the question without its second part, for a large portion of the truth must thereby be left out.

Now the more recent years of the convict system may, for several reasons, be justly constituted a period. They give us the latest results of a system which has been characterised by at least two great contemporaneous changes as bearing upon the question of health and mortality; viz., the introduction of a reduced scale of diet and the gradual and complete abolition of transportation. If anyone will take the trouble to run his eye along the column of "deaths per 1000 prisoners from all causes" in Table I, he will see at once that the six years which follow the central year 1863 do not contrast favourably with the six years which preceded it. The years 1864-69 form our recent period, and the investigation of the question of mortality ought to start here by inquiring how far and why this period with its changes differs from that of the period which it has just superseded; and thence the inquiry can be carried further back to any foregone period. The many *pros* and *cons* that come to be considered in such an investigation are beyond the scope of this letter.

With regard to Dr. Rendle's remark about experience, I challenge him to point out a clause, to say nothing of a conclusion, which I have brought forward on the ground of my experience. Dr. Rendle's seniority in the service may permit him considerable freedom in his mode of expression, but it at the same time precludes me from making use of the retort that most naturally arises in my mind.

I am, etc., DAV. NICOLSON, M.B.
The Grove, Portland, June 6th, 1871.

THE POOR-LAW MEDICAL SERVICE OF GREAT BRITAIN.

MR. CORRANCE'S QUESTIONS ON THE IRISH DISPENSARY SYSTEM.

AT a meeting of the Council of the Poor-law Medical Officers' Association on Tuesday at the Medical Club, Mr. Corrance, M.P. for East Suffolk, laid before the meeting the replies to the questions which he recently addressed to the Poor-law medical service in Ireland. The information thus obtained is of a highly important character; as show-

ing the economic, sanitary, and curative results of the Irish Medical Charities Act. With an almost perfect unanimity, the answers to the questions were remarkably in favour of the Act. The chief objection was the indiscriminate issue of dispensary tickets by numerous irresponsible persons; and this was shown to operate to the disadvantage of the dispensary physicians by lessening their income from private practice. The following resolution was unanimously adopted by the meeting: "That the present system of medical poor relief is inadequate to the wants of the poorer classes, is unsatisfactory in its results, and requires amendment. To this end it is expedient that the provisions of the Irish Medical Charities Act and a dispensary system be generally adopted throughout England, with such modifications as may render it applicable to the English system of Poor-law administration."

At the above meeting of the Council, a resolution was unanimously passed as follows. "That, considering the very unsatisfactory results of the Poor-law medical officers' deputation to the Privy Council and Poor-law Board, and acting on the recommendation of Mr. Stansfeld, it is resolved that a deputation of the Association should seek an early interview with Mr. Forster, in order to lay before him their views on the recent consolidation of vaccination arrangements."

FEES FOR POST MORTEM EXAMINATIONS.

SIR,—An inquest (some details of which are given in the enclosed report, cut from a local paper) was held last Wednesday at the Workhouse of which I am Medical Officer, to determine the cause of the death of one of the inmates. The medical evidence was given by a practitioner from a neighbouring town; and he was also employed to make the *post mortem* examination. Both the relieving officer and I privately mentioned to the coroner our opinion, that, as the medical witness who had been called could say no more than what was admitted on all hands, viz., that the deceased was a maniac before his admission, the medical officer to the institution should have been asked to give the evidence in the case, or, at any rate, was the proper person to make the *post mortem* examination. The coroner, in reply, gave us to understand that an Act of Parliament prohibited him from engaging the services of the medical officer to the Workhouse. Having on a previous occasion given my evidence and taken a fee from this very coroner, in a case occurring in the same establishment, I naturally felt surprised at the grounds of his objection, and requested him to refer me to the Act to which he alluded. Next day, he directed my attention to "an Act to provide for the attendance and remuneration of medical witnesses at coroner's inquests, 6 and 7 William IV, cap. 89." I was, and still am, under the impression that this law applies only to resident medical officers, whose duties are confined to the institutions specified in the Act, and not to non-resident medical officers of Union Workhouses. This being a point affecting the interests of all Poor-law medical officers, and of which a clear definition is necessary, in order to prevent misunderstandings with their professional brethren, I shall feel obliged if you will kindly inform me, in your answers to correspondents: 1. Whether a coroner can legally remunerate a medical officer for evidence given at an inquest on an inmate of a workhouse; or for making a *post mortem* examination at such inquest? 2. What is the usual practice in similar cases throughout the country?
I am, etc., GEORGE MOORE.

Hartlepool, June 12th, 1871.

* * 1. When a coroner directs a *post mortem* examination to be made, it does not appear that the 6 and 7 William IV, cap. 89, sec. 5, prevents the medical officer from being paid the fee allowed by that statute for a *post mortem* examination. 6th Official Circular, 54; Lumley's *Medical Officer's Manual*, 3rd. edition, p. 62. See also Weightman's *Medical Practitioner's Legal Guide*, p. 116, as to proper fees of legally qualified practitioners. 2. The practice is, throughout the country, to pay such fees.

VACANCIES.

BICESTER UNION, Oxfordshire—Medical Officer for the Bicester District and the Workhouse.
BRIDGWATER UNION—Medical Officer for the Huntspill District.
GREAT YARMOUTH UNION—Medical Officer, North District.
HENLEY UNION, Oxfordshire—Medical Officer and Public Vaccinator for Nettlebed District.
LUTON UNION, Bedfordshire—Medical Officer for the Markyate Street.
NARBERTH UNION, Pembrokeshire—Medical Officer for District No. 3.
STRAITH, Isle of Skye—Parochial Medical Officer.
WESTHAMPTON UNION, Sussex—Medical Officer and Public Vaccinator for the Rumboldswyke District.

THE POOR-LAW MEDICAL SERVICE OF IRELAND.

THE LATE DR. CHARLES ARMSTRONG.

AT the last meeting of the Cork Dispensary Committee, the following resolution was passed unanimously: "That we sincerely deplore the death of our medical officer, the late Dr. Charles Armstrong, and feel it but due to his memory to publicly express this day our opinion of the great loss the poor of the district of St. Luke's have met in the death of one whose life and best exertions, ever ready and willing for over twenty years, were spent in their service, and whose warm-hearted philanthropy and benevolence were unremitting in attending the sick and alleviating the sorrows of the widow and the orphan."

SUPERANNUATION.

At a special meeting of the Ennis Board of Guardians, Dr. Cullinan applied, on the ground of other engrossing occupations, to be allowed to retire on a superannuation allowance, or to obtain qualified assistance at his own cost, or that the board should appoint a colleague, with a fixed proportion of his present salary. It was pointed out that, as to the first, he was neither sixty years of age, nor incapacitated by ill-health—both essential conditions of legal superannuation. The second alternative was accepted. A guardian subsequently gave notice of motion to rescind such acceptance, on the ground that Dr. Cullinan's occupation would interfere with his workhouse duties—an unjustifiable assumption after thirty years of honourable and satisfactory service.

VACANCIES.

BOYLE UNION, co. Roscommon—Apothecary to the Workhouse.
COOTEHILL UNION, co. Cavan—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Tullyvin Dispensary District.
DOUGHTERARD UNION, co. Galway—Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Lettermore Dispensary District.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Wednesday, June 14th.

MEDICAL ACT (1858) AMENDMENT BILL.

Dr. LUSH, in moving the second reading of this Bill, said the measure introduced by the right hon. gentlemen (Mr. Forster) last Session was not satisfactory to the profession; and as the right hon. gentleman was deterred by the press of business from bringing forward any Bill this year, it only remained for a private member to make the attempt at legislation. Though he brought forward the present Bill in a professional point of view, he wished it to be borne in mind that the interests of the profession and the public were blended, and that what was good for one was good for the other. It was because little had yet been effected by legislation towards medical reform that he proposed the present Bill, the purpose of which was to abolish the Council of twenty-four members at present existing (which, being too numerous, was apt to degenerate into a debating society), and to establish a new Council in its place, consisting of twelve members. It was proposed that the present examining bodies, amounting to nineteen in number, should be associated together, and collectively nominate four members; that the Crown should nominate four members, and that the whole body of the profession should have the right to nominate the other four members. It was provided that, before any man should be entitled to practise, he should pass through one examination; and that examination should indicate the *minimum* standard of professional education in this country. He believed that the standard of medical education had been considerably raised of late years, but there was still great room for improvement, and he trusted the House would consent to give a second reading to the Bill he now proposed.

Mr. JESSEL said that the present Bill differed in a most important respect from the Government Bill of last year, which did not propose to put in the hands of the Medical Council, however elected, the right to nominate the Board of Examiners, without any security against an abuse of the power. The Bill, in fact, proposed a monopoly of examination, and all monopoly was objectionable; but if it were created, care should be taken to prevent it from leading to stagnation. The Bill defined in a positive manner what the examiners were to do, without having regard to the natural progress of science and learning, for an expansive and improvable system was not provided for by the Bill. The great defect of the present system was that no confidence was felt in a great many members of the Board of Examiners. It had been a competition downwards, and there had been a race to diminish the qualification required in order to attract a large number of fee-paying persons to the examinations. The examiners must be made honest by preventing them from having a pecuniary interest in the result of the examinations. The cardinal point was to secure a fair examination for all, and to give security for progressive improvement in the medical profession. He was not prepared to say that an infusion of elected councillors would not be desirable, but it would not be right to have the Examination Board and Controlling Board composed of the same class of persons. He trusted that the Bill would be modified so as to satisfy the just expectations of the profession.

Dr. BREWER supported the Bill, which, he thought, would effect the purposes desired by the hon. and learned member.

Dr. PLAYFAIR observed that there were two questions with which the Medical Act Amendment Bills (No. 1 and 2) professed to deal—

the constitution of the Medical Council and the qualification of medical practitioners. As to the former, the real point to be ascertained was whether the Council should be a body for the promotion of the public interests, or for purely professional objects. If it was intended to promote the interest of the public, the public should pay the cost, and there should be a lay as well as a professional representation—the public predominating over the professional element. The second Bill recognised and left nearly alone the old corporations. The Amendment Bill (No. 1) extinguished them, which he thought was a great mistake. It was a disadvantage to have nineteen examining bodies having a tendency to compete with each other, and therefore giving the public a security for only a *minimum* qualification; but it did not follow that they should be reduced to one, as was proposed by the Bill of his hon. friend the member for Salisbury. It would be much better that there should be an examining body for England, another for Scotland, and a third for Ireland. This was a subject with which the Government only could fairly grapple; but these Bills would be useful as pointing out the paths of medical reform which it was desirable they should follow. He hoped both Bills would be withdrawn, and that the Government would deal with the question next Session. [*Hear, hear.*]

Mr. W. E. FORSTER said there were two points for discussion—one, as to the mode of examining and certifying medical practitioners, and the other as to the constitution of the Medical Council. With regard to the first point, the Government entirely appreciated its great importance. They were aware of the very great practical evils that resulted from there being nineteen accredited bodies for certifying medical practitioners, but they had been unable to deal with the question this year. This led two private members to bring in Bills on the subject, but neither could hope to pass his Bill during the present session. From the number of questions pressing on the Government for legislation, he could not pledge them to bring in a Bill next year, but it was their wish and anxiety to do so. If they were unable to deal with the subject next year, and if any private member, such as his hon. friend the member for Salisbury, or any other, took up the subject, no obstacle would be thrown in the way of the fullest consideration of it by the House; and if it were desirable the Bill might be referred to a committee upstairs. Legislation had failed last year because, although the Bill which had been introduced in the House of Lords had been most carefully considered, it had been thought desirable when the Bill came down to that House to add to the questions they were then attempting to settle the other question of the constitution of the Medical Council; and it was then too late in the session to deal with that subject.

After a few words from Dr. BRADY, who stated that his own Bill—the Medical Act (1858) Amendment (No. 2) Bill—had been carefully prepared and gave great satisfaction to the profession; and from Sir J. GRAY, who congratulated the House on the disposition shown by the right hon. gentleman on the part of the Government to deal with the subject next session, both Bills were withdrawn, and the order of the day relating to them discharged.

LUNACY REGULATION ACTS.—The Lord Chancellor presented a Bill for the amendment of these Acts, and it was read a first time.

MEDICAL OFFICERS ATTACHED TO THE GERMAN AND FRENCH ARMIES.—In answer to Colonel Anson, Mr. Cardwell said he was sure it must be evident that if our medical officers were to be received with kindness by foreign governments, and they were to report to Her Majesty's Government with freedom, it was absolutely necessary that their reports should be confidential.

REGISTRATION OF BIRTHS.—A Bill, introduced by Dr. Lyon Playfair, Sir Charles Adderley, Mr. Bouverie, Mr. Selater-Booth, Sir George Grey, and Mr. Walpole, proposes to make the registration of births compulsory. Notice of the birth of a child is to be given within forty-two days under a penalty of £5; and the Registrar is to have power, if he suspects the birth of a child has been concealed, to obtain an order from two justices of the peace to make inquiries of the persons suspected of concealing the birth, and they are to be liable to a penalty of £5 for refusing to answer or answering untruly.

METROPOLIS WATER SUPPLY.—The Metropolis Water (No. 2) Bill provides for a constant water-supply by the metropolitan companies, when, after proper notice and under certain conditions, ordered to do so in any district by the Metropolitan Board of Works, who are to act on their own motion, or when required by the local authority in any district. Should the metropolitan authority refuse or delay to act, or in case the health of a district is likely to suffer from an insufficient water-supply, the Home Secretary is to have power to require the water companies to provide a constant service. The companies are liable to a penalty not exceeding £200 for breaches of the Act, and a further

penalty not exceeding £100 a month for continued neglect. An analyst is to be appointed by Government to test daily the quality of water supplied by each company, and penalties are to be imposed for impurity. The bill bears the names of Mr. Bruce and Mr. Winterbotham.

OBITUARY.

DENIS PHELAN, M.R.C.S.

DENIS PHELAN, who died on Saturday, May 22nd, 1871, in his eighty-seventh year, was born in 1785, near New Ross, county Wexford. He received his professional education in Dublin, where he became a Licentiate of the Apothecaries' Hall. For some time he held the situation of resident pupil in the Cork Street Fever Hospital. He then settled at Clogheen, county Tipperary, where he was appointed medical attendant to the local dispensary. This office he shortly afterwards resigned; and, having been admitted a Member of the Royal College of Surgeons of London, removed to the town of Clonmel, where he rapidly acquired a large practice, and was appointed medical officer of the old workhouse, the lunatic asylum, and the county gaol. Thus at an early period of his professional career he had ample opportunity of becoming acquainted with the many abuses then prevailing in the administration of the medical charities of Ireland. Deeply impressed with these abuses, Mr. Phelan undertook, at his own expense and risk, an investigation into every public medical institution in Ireland. The cost and labour of this inquiry were very great, and the time which it occupied very seriously interfered with and militated against his then increasing professional practice. The results of this laborious investigation are embodied in *A Statistical Inquiry into the State of the Medical Charities of Ireland, with Suggestions for a Medical Poor Law*. This work was published in 1835; and it is not too much to say that to it, and to Dr. Phelan's subsequent labours, Ireland is mainly indebted for its excellent system of Poor-law dispensary relief, and also for the no less important workhouse fever hospitals which now exist in every part of that country, and the value of which in a poverty-stricken and oftentimes fever-haunted country is incalculable. In 1838, on the introduction of the present Poor-law system into Ireland, Mr. Phelan was appointed one of the Assistant-Commissioners. No man ever discharged the duties of a public office more fearlessly, honestly, and conscientiously, than he did; and, as long as there were abuses to be corrected, or the interests of the sick poor to be protected, no consideration of self-interest or ease, or even necessary repose, ever interfered for one moment between Mr. Phelan and the performance of what he believed to be his duty. How hard he laboured in this way, especially during the long hard times of the famine-years, no one who was not personally cognisant of the circumstances could well realise. Mr. Phelan also reported to the Poor-law Commissioners on the results of an inspection of the medical charities of Ireland; and, on these reports being referred to a Select Committee of the House of Commons in 1841, that Committee reported that "they have not considered it necessary to dilate upon the defects and abuses incidental to the system under which these institutions are at present maintained and administered, because these imperfections have been fully set forth in the Reports of the Poor-law Commissioners upon the Medical Charities of Ireland, published during the session of 1841." In 1843, Mr. Phelan was removed from his office, without any fault having been imputed to him. After having been for nearly a year without employment, he was appointed, as Governor of the House of Industry Hospitals, to a situation in connexion with the Poor-law Department. On fever becoming prevalent in the workhouses, he was reappointed Assistant-Commissioner in 1847, and was entrusted with the inspecting and reporting on the sanitary state of the workhouses of Ireland, and of the fever-hospitals, cholera-hospitals, and other institutions connected with them. These laborious and dangerous duties he continued to discharge during the famine, fever, and cholera periods, until 1851, when he received charge of thirteen Poor-law unions, which he superintended until 1855, when he was superannuated on a very inadequate pension.

Mr. Phelan was fifty-three years old when he was appointed a Poor-law Medical Commissioner, and had then a lucrative private practice, with two valuable public appointments. These he resigned on the faith of the permanency of the office to which he was appointed, and of his continuance in it so long as the duties should be satisfactorily discharged by him. On his ceasing to hold the above mentioned office, a retiring allowance was granted to him considerably less than the income he had derived from his professional practice and local appointments; so that, after more than seventeen years spent in the public service, with credit and satisfaction to the department, his pecuniary condition when he left that service was far worse than when he joined it.

In 1856, on the formation of the Dublin Hospital Board of Superintendence, he was appointed its secretary. This office he continued to hold, with credit to himself and signal advantage to the sick poor, until a few weeks before his death, when, feeling the pressure of advancing age and infirmities, although his mental powers were as vigorous as ever, he sent in his resignation to the Lord-Lieutenant.

For some months before his death he had manifested increasing physical weakness. Still occupied with projects for the benefit of the sick poor, to whose cause he had devoted his entire life, and surrounded by his sorrowing family, he passed away gently and painlessly.

Mr. Phelan's published works were, *A Statistical Inquiry into the State of the Medical Charities of Ireland, with Suggestions for a Medical Poor Law* (1835); *Reform of the Poor-law System in Ireland, or Facts and Observations on the Inadequacy of the existing System of Poor-Relief* (1859); *Observations on the Comparative Advantages of Attendance on Poor Women in Lying-in Hospitals and in their own Homes* (1867). Besides these, Mr. Phelan also published a great number of pamphlets, letters, etc., all directed to the one object of his life—namely, to endeavour to promote the benefit of the poor, and more especially of the sick poor.

Mr. Phelan has gone down to his grave full of honour with all those who knew his worth. By the public and the Government whom he served, his labours have never been rewarded as they merited—a tale too often to be told of our ill-requited profession.

GEORGE MALLETT, F.R.C.S., OF BOLTON-LE-MOORS.

AFTER a long illness, Mr. George Mallett died on the 5th instant, in the 69th year of his age, at his residence, Silverwell House, Bolton. He was articled to the late John Moore, Esq., of Bolton; and finished his professional studies at St. Bartholomew's Hospital. He was House-Surgeon to the Bolton Dispensary from 1825 to 1831; and so discharged the duties of that office as to receive, on his resignation, a gratuity and a warm vote of thanks from the Committee. From that period until disabled by his last illness, he was actively engaged in extensive and lucrative practice. He was from 1840 to 1864 one of the honorary medical officers of the Bolton Infirmary; and on his retirement was immediately appointed Consulting Surgeon. He was one of the earliest members of the British Medical Association, in which he always took great interest. He was President of the Lancashire and Cheshire Branch for one year; and a member of the Council for several years.

A thorough knowledge of his profession, a clear, sound judgment, and conduct strictly honourable, secured to him the confidence of the public and of the profession, causing him to be frequently consulted by his brethren not only in the town, but in a wide circle around it. His loss is keenly felt and deeply deplored by his numerous friends, and to a great extent by the community among whom he so long and usefully laboured.

CHARING CROSS HOSPITAL.—The annual distribution of prizes to the students in the medical school in connection with Charing Cross Hospital, took place on Friday, the 9th inst., in the Board-room, Professor Huxley in the chair. The Dean (Dr. Pollock), in presenting his report, congratulated the medical school upon the important changes present and in progress connected with the institution. The new school buildings, including the library and the separate entrance, with the physiological laboratory for practical teaching, which has lately assumed so much importance, are now complete and in a condition for efficient working. Additional accommodation for patients had also been provided, and the beds had been increased in number to 150, and there were now separate wards for the treatment of diseases of women and refractory patients. The dean referred to the services of Dr. Beigel, who—reversing the principle of *cedant arma togæ*—had been with his countrymen in the battle-fields of France, and had returned with the much-coveted order of the Iron Cross to resume his labours at the hospital. Mr. Galton, the lecturer in comparative anatomy, had been amongst the first to go out in aid of the sick and wounded, and in association with Dr. Mayo, had held charge of the Alice Hospital, at Darmstadt, for many months. A student of the hospital had also rendered good service in the same cause. The hospital every year increased in importance and usefulness, and conferred great benefits upon the surrounding poor. The chairman distributed the prizes, and Mr. J. A. Lea carried off a considerable number. He gained the Llewelyn Scholarship, the gold medal, the governor's clinical medal, medals for medicine, midwifery, and forensic medicine, and a certificate for pathology. Upwards of seventeen medals and as many certificates were awarded, after which the learned professor addressed the students. The proceedings terminated with a vote of thanks to the chairman.

MEDICAL NEWS.

UNIVERSITY OF CAMBRIDGE.—Third (final) M.B. Examination, Easter 1871. Examined and approved.
Clarke, T. K., M.A., Emmanuel College
Evans, G. H., M.A., King's College

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 8th, 1871.

Murdoch, Donald, Rotherhithe, S.E.
Strafford, Thomas, Ripley, Derbyshire

The following gentleman also on the same day passed his first professional examination.

Wallis, William, Guy's Hospital

MEDICAL VACANCIES.

The following vacancies are announced:—

BIRMINGHAM NEW HOSPITAL FOR WOMEN—Four Acting Medical Officers.

BIRMINGHAM and MIDLAND FREE HOSPITAL for SICK CHILDREN—Two extra Acting Physicians; Ophthalmic Surgeon.

BRIGHTON and HOVE DISPENSARY—Resident House-Surgeon.

CITY OF DUBLIN HOSPITAL—Physician.

DEVON COUNTY LUNATIC ASYLUM—Assistant Medical Officer.

DEVON AND EXETER HOSPITAL—Surgeon.

DISPENSARY FOR SKIN DISEASES, Bishop Street, Dublin—Physician.

EDINBURGH VETERINARY COLLEGE—Professor of Zootomy or Comparative Anatomy; Professor of Cattle Pathology.

HAMADRYAD HOSPITAL SHIP, Cardiff—Resident Assistant Medical Officer.

HEREFORD GENERAL INFIRMARY—House-Surgeon.

HUDDERSFIELD and UPPER AGBRIGG INFIRMARY—Physician.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, Margaret Street, Cavendish Square—Physician.

LEICESTER INFIRMARY AND FEVER HOUSE—House-Surgeon and Apothecary.

LIVERPOOL DISPENSARIES—Assistant Resident House-Surgeon.

LIVERPOOL NORTHERN HOSPITAL—Junior House-Surgeon.

METROPOLITAN FREE HOSPITAL—Assistant Physician.

ST. MARY'S HOSPITAL—Assistant Physician; Assistant Surgeon; Dental Surgeon.

SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds—Physician.

RIPON DISPENSARY—House Surgeon.

WEST LONDON HOSPITAL—Physician for Diseases of Women; Ophthalmic Surgeon; Junior Surgeon.

WORCESTER GENERAL INFIRMARY—Dispenser.

[For Poor-law Vacancies see Poor-law Department.]

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*BOULTON, Percy, M.D., appointed Physician to Out-patients at the Samaritan Free Hospital.

*BURCHELL, P. L., M.B., elected Surgeon-Accoucheur to the City of London Lying-in Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

DEATHS.

DAUNT, William, M.D., late Surgeon Inniskilling Dragoons, at Bath, aged 83, on June 5th.

JONES, James, M.D., at 4, Harley Street, on June 6th.

BEQUESTS.—The Reverend Martin C. Tolputt, of Hargrave House, near Margate, has left to the Middlesex Hospital, the Kent and Canterbury Hospital, and the Margate Sea-bathing Infirmary, legacies of £100 each; and £50 each to the Margate Lying-in-Charity, and the Hospital for Lying-in-Women, Belton Street.

PRELIMINARY EXAMINATIONS.—At the half-yearly examinations in arts, etc., for diplomas of Fellowship and Membership of the Royal College of Surgeons, commencing on Tuesday next, it is stated that for the Fellowship there are 92 candidates, and for the Membership 251, making a total of 342 of our future doctors.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, June 10th; The New York Medical Record, June 1st; The Boston Medical and Surgical Journal, June 1st; The Madras Mail, April 3rd; The Shield, June 10th; The Philadelphia Medical Times, May 24th; The Philadelphia Medical Independent, May 27th; The Scotsman, June 8th; The Dublin Express, June 6th; Saunders's News-Letter and Daily Advertiser, June 8th; The Lincolnshire Chronicle, June 9th; The Edinburgh Evening Courant, June 10th; The South Durham and Cleveland Chronicle, June 10th; etc.

OPERATION DAYS AT THE HOSPITALS.

MONDAYMetropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAYGuy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAYSt. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAYSt. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAYWestminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic Hospital, 2 P.M.

SATURDAYSt. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY.—Quekett Microscopical Club (University College, Gower Street), 8 P.M. Mr. N. E. Green, "On Diatom Markings as examined by the Lime Light."

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with *halfpenny* stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

SMALL-POX AND MANSLAUGHTER.—Some jurors, it appears, "object to expose themselves to the imminent danger of catching small-pox in the discharge of their public duties." It is, no doubt, very unsatisfactory to run any risks of catching disease in the discharge of public duties; but it is one which sanitary officers, and committees, jurors, nurses, and doctors, must sometimes incur. In the case of small-pox, we may suggest to the South London Juror, whose particular grievance it is to have had to make a forced visit to the Small-pox Hospital, that it has been shown that the nurses and attendants in constant contact with the deadly poison have always, and through a long series of years, been effectually preserved by a very simple precaution—revaccination. Instead of the coroner being open to an action for manslaughter, therefore, if either of the jurors, neglecting that precaution, die of small-pox, the juror ought rather to fear in such a case the *post mortem* penalties of wilful suicide.

It is to be hoped that the very general expressions of disapproval of the ventilation, both mental and bodily, at the College of Physicians *conversazione*, on Wednesday, will have some effect on the authorities on future occasions of the kind. The atmosphere evidenced but sorry application of the advantages of ventilation so often advocated within the walls of the College. I think a little more respect for the hats of the visitors would not be out of place.—AN EXHAUSTED GUEST.

MR. J. LARDNER GREEN.—We have already done so. Forward the circular with your complaint to the President of the College of Surgeons.

L.S.A. (Tavistock).—Both Druitt's *Surgery* and Squire's *Companion to the Pharmacopæia* are published by Churchill, London.

SIR,—In the JOURNAL of April 15th appeared an extract from one of the Rules of the Hull and Sculcoates Dispensary, as follows:—"The services of the Physician shall be gratuitous. The Surgeon shall receive an annual payment of Thirty Guineas for their services, and have three months' notice from the Committee in case it is necessary to dispense with their services. The Surgeons shall give the like notice to the Committee if they wish to terminate their engagements." And a correspondent asked your opinion upon it; which was—that the acceptance of a stipend is quite as honourable as that surgeons should give their services nominally gratuitously, etc. I shall feel greatly obliged if you will in your next JOURNAL express your opinion as to the propriety of taking office under the Committee (to whom the Governors have delegated the power of appointment and dismissal of the Surgeons), subject to dismissal by them. The Committee previously had the power of dismissal, but it was subject to confirmation by a special meeting of the Governors. Ought such a course to be considered as in any way derogatory to professional honour? I am, etc., A MEMBER OF THE ASSOCIATION.
17, Albion Street, Hull, June 3rd.

* * It is an unsatisfactory arrangement; but we do not appreciate its relation to professional honour. It would be well if the medical men concerned should unanimously protest, and seek by mutual arrangement to obtain a better court of appeal.

MURPHY ANNUITY FUND.

The following is the first list of subscriptions received:—

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SPURIOUS OR IMPURE VACCINATION.

SIR,—Surely the evidence of Mr. Startin as submitted to your readers as proof of the conveyance to individuals—through the agency of vaccination—of itch, herpes circinatus, pityriasis versicolor, and syphilis, is altogether unsatisfactory and insufficient. No doubt, at certain periods, the disease which I have termed *impetigo contagiosa* frequently occurs after vaccination; and seven years ago, in two papers published in your JOURNAL, I gave interesting facts upon this point. The disease, in times when it is epidemic, it is worthy of notice, is very liable to attack any slight scratch—in children especially. But I affirm that we do not possess one particle of evidence of an exact kind to show that itch, herpes, or pityriasis versicolor is conveyed by vaccination; and there is nothing in the facts adduced by Mr. Startin to show that either of these three, or syphilis, was more than a mere incidental concurrence with vaccinia, or by chance followed in its wake, in the cases which he gives. For what are the facts of the case? As regards itch: a boy, aged 16, was seen by Mr. Startin two months after being vaccinated, and found to be suffering from papular scabies. It seems that the vaccination was followed by an "inflammatory rash", which spread over the body, whilst the vesicles on the arm assumed an irregular shape, and became quickly purulent—according to the mother's account, be it observed. Eight days afterwards, the "rash" appeared in a brother who slept with the patient. On this evidence of coincidence, Mr. Startin says: the scabies was caused by vaccination in the one boy, and conveyed to the other by personal contact. We have not even any information as to the character of the lymph, though we are told that both brothers were vaccinated from the same lymph; and the information on this point was obtained from the patients themselves and their mother, two months after vaccination. This is not scientific observation. As regards pityriasis versicolor and herpes circinatus: a man, aged 52, saw Mr. Startin a month after vaccination, stating that, a few days after his arm was punctured, it became swollen, painful, etc., and "a rash appeared around and upon the part, which festered and became sore and scabby." This is all the description of the eruption given; but Mr. Startin proceeds to say: "the pityriasis (not described) was mixed with herpes, and soon extended, etc....the itching attending these eruptions had, doubtless, caused the patient to carry them from place to place with his fingers, etc." Mr. Startin adds: "I have no doubt, at our next interview, the report will be favourable." What evidence is there that the disease was pityriasis versicolor, or herpes circinatus, at all (I accept nothing but microscopic evidence); or that it was anything but an eczema? for we are told it "became sore and scabby." But Mr. Startin only goes upon hearsay. He takes the patient's statements as to what occurred a month before. There is no tracing the source of the lymph used, from a patient suffering from parasitic disease. As regards syphilis: a man, unmarried, aged 46, was seen by Mr. Startin for the

first time, seven weeks after vaccination, and then was the subject of secondary syphilis, tubercles being found amongst other places in the sites of the vaccination. The belief that the disease was vaccino-syphilis, is based upon the fact that the disease occurred just after vaccination: but everything else militates against this view. The man felt very unwell with *malaise*, etc., *the day after vaccination*, too early for the vaccination to have anything to do with the symptoms; and from that time, the syphilitic eruption began and increased. We have no period of incubation, followed by the development of a chancreous sore, the lapse of a certain period, and the occurrence, in due order, of secondary mischief. Indeed, the vaccination seemed to be abortive, for the man washed off the vaccination on the fourth day in a warm bath. At any rate, Mr. Startin wants us to believe that *secondary symptoms* began to develop themselves, as the consequence of the introduction of syphilitic matter with the vaccine lymph into the system of the patient—within a few hours, and without the usual primary mischief. For we are told expressly that the glands in the axilla or elsewhere were not enlarged, and, as I have said, we have no chancreous sore produced in the site of the vaccination vesicles, after a certain time and running a certain course, such as we know is usual. The advent of the syphilitic eruption must have been a mere coincidence. A second case is mentioned "of a patient who had *probably* been vaccinated from the same vaccine"; and a third case, in which no syphilitic symptoms are named, is classed in the same category. Nothing is said about the source of the lymph, or the person from whom it was obtained. Mr. Startin has told the profession that he has seen about thirty cases of vaccinia-syphilis; but he tells us, also, that "the question whether the supposed vaccine vesicle presented the characteristics of a chancre or not, in the rare cases wherein syphilitic eruptions have been manifested, cannot be decided by my evidence." If this be so, his cases of so-called vaccinal syphilis cannot be received as such, because the main link in the chain of evidence or proof is wanting. I have the greatest respect for Mr. Startin's therapeutic knowledge and experience; but I have felt myself unable to resist commenting upon his statements relative to "impure vaccination", because they really are most unfair towards vaccination, and, I may say, not worthy of modern dermatology.

I am, etc., TILBURY FOX, M.D.

LADY JANE TAYLOR (Watford).—Next week.

A ST. BART'S STUDENT.—We will answer the question next week.

MR. EDWARD SWAIN (Brookwood).—The letter has been forwarded to its destination.

DR. G. E. DAY (Torquay).—A limited number of the Rev. Dr. Haughton's lectures will be reprinted.

OLECRANON (St. Austell).—Cooley's Receipt Book (Churchill).

MR. W. PARKER (Bath) will, we fear, have a poor opinion of our intelligence, when we confess our inability to perceive the gist of his theory of ventilation founded on the principle of the "invisible, ponderable, expansive, compressible, elastic, ubiquitous, and non-conductive power of air." We are, however, consoled by learning that the Home Secretary has found the same difficulty.

ERRATUM.—In Dr. Goodridge's paper published in last week's JOURNAL, at page 609, column 2, line 3 from bottom, for "more or less distinct," read "more or less indistinct."

THE subject of "Midland Counties'" letter has been referred to the Local Committee at Plymouth, and we will duly inform him of any arrangement which may be made with the Railway Companies.

A MEMBER would feel obliged by the publication of the formula for the preparation of the syrup of phosphate of strychnia, iron, and quinine, referred to by Dr. Hayden in his report of a case of chorea.

COMMUNICATIONS, LETTERS, ETC., have been received from:—

The Rev. Dr. Haughton, Dublin; Dr. Acland, Oxford; Dr. T. L. Brunton, London; Dr. Clifford Allbutt, Leeds; Dr. Lyon Playfair, London; Dr. G. E. Day, Torquay; Dr. J. Heygate, Derby; The Secretary of the Quekett Microscopical Society; Dr. J. Wallace, Liverpool; Mr. David Nicolson, Portland; Our Berlin Correspondent; Dr. J. T. Banks, Dublin; Mr. John Manley, West Bromwich; Dr. Kelly, Taunton; Mr. William Parker, Bath; Dr. G. Harvey Williams, Rhyl; Messrs. H. E. Towle and Sons, London; Mr. F. Churchill, London; Mr. Edward Swain, Brookwood; Dr. Morton, Glasgow; Dr. Swanzy, Dublin; M.D.; Dr. Drysdale, London; Mr. T. Watkin Williams, Birmingham; The Registrar-General of England; The Secretary of Apothecaries' Hall; The Registrar-General of Ireland; Mr. T. M. Stone, London; The Registrar of the Medical Society of London; Our Dublin Correspondent; Dr. R. Elliot, Carlisle; Mr. Reginald Harrison, Liverpool; Dr. Phillips, London; The Secretary of the City of London Truss Society; Dr. R. H. Taylor, Liverpool; Mr. F. Ferguson, Bolton; Dr. J. William, Penygroes; Mr. Pryce Morris, Bedford; Mr. John Sleman, Tavistock; Mr. J. Lardner Green, Tisbury; Dr. Rumsey, Cheltenham; Dr. C. Handfield Jones, London; Dr. Charlton Bastian, London; Surgeon-Major Atchison, London; Mr. E. B. Owen, London; Dr. Tilbury Fox, London; Our Edinburgh Correspondent; Dr. J. B. Pitt, Norwich; Mr. Walter Hart, Great Baddow; Mr. Marsh Jackson, Smethwick; Dr. Gwynne Harries, Pembroke Dock; Messrs. A. and C. Black, Edinburgh; The Secretary of the Royal College of Physicians; Dr. Giles, Henley-on-Thames; Mr. F. Mason, London; Mr. Savory, London; Dr. Cavafy, London; Dr. Fuller, London; Mr. Maunders, London; Mr. Henry Smith, London; Sir Henry Thompson, London; Mr. James Lane, London; Mr. Henry Terry, Northampton; Mr. Dolman, Derby; Dr. D. T. Maunsell, Dublin; Mr. Husband, York; Dr. Sieveking, London; Dr. A. P. Stewart, London; Olecranon, St. Austell; Dr. Copeman, Norwich; Dr. Theodore Williams, London; Dr. Wardell, Tunbridge Wells; Mr. Curgenven, London; Dr. G. Moore, Hartlepool; Mr. John Marshall, London; Mr. Callender, London; Mr. Henry Lee, London; Mr. C. Creighton, Vienna; Mr. E. Bellamy, London; Lady Jane Taylor, Watford; Dr. J. Crichton Browne, Wakefield; Mr. Wheelhouse, Leeds; Mr. Hancock, London; etc.

THREE LECTURES

ON

THE PRINCIPLE OF LEAST ACTION IN NATURE,
ILLUSTRATED BY ANIMAL MECHANICS.*Delivered at the Royal Institution of Great Britain.*

BY THE

REV. SAMUEL HAUGHTON, M.D. Dubl., D.C.L. Oxon., F.R.S.,
Fellow of Trinity College, Dublin.

LECTURE III.—Tuesday, June 6th, 1871. (Concluded.)

Application of the principle of Least Action to the Heart and other involuntary Muscles.—The Mechanism of the Heart explained, and the amount of work done by it.—“Experimentum crucis” of the entire Theory, derived from the measurements of the Fibres of the Heart of Man and the Ox.—General conclusions as to the future progress of Animal Mechanics and Comparative Anatomy, when subject to the Rule of Geometry, the Queen and Mistress of all the Sciences.

WE have now discussed, and I hope satisfactorily solved, the question how much work is done by the heart; but a question remains unanswered which no intelligent mind can avoid asking: How does the heart do that work? I cannot pretend to tell you how ultimately it does that work, for that depends upon the problem of nerve-supply—a subject with which we are totally unacquainted. But I believe I have succeeded in making one step further in advance and getting at a slight knowledge of the arrangement of the fibres of the heart by which this enormous amount of work is possible, and have arrived at it by a strict and rigorous application of the principle of least action. I have applied the principle of least action to the construction of the heart, so as to ascertain, if possible, some law that must be fulfilled by the arrangement of the fibres which will allow of this principle being carried out. The law of muscular contraction which must be complied with is this: Let L represent the length of a muscular fibre; an order comes from the brain or some other part of the nervous system to this fibre to contract; it is immediately shortened to an extent that leaves it about eight-ninths of its original length. Now, when a group of fibres are so arranged, as in the example I showed you before of the triangular muscle, that each fibre in the system is not at liberty to contract to eight-ninths of its entire length, there is a necessary loss of force. Therefore, if the principle of least action applied to the heart be true, we must find such an arrangement of the fibres in the heart as will allow of every individual fibre contracting to eight-ninths of its length. The fibres of the heart have been compared by Borelli to a ball of twine; and this has been more correctly explained by subsequent writers as two balls of twine contained in a third. There are two cavities in a heart; we call them the right and left ventricles; the whole heart surrounds these. Certain groups of fibres run round one cavity, certain groups run round another, and certain other groups run round both. The fibres that run round the entire heart are called common fibres, because they are fibres which are common to both cavities, while the fibres that run round each cavity separately are called proper fibres. In these diagrams, which I have taken from Dr. Sibson's excellent work on Medical Anatomy, a general view of the arrangement of these fibres is shown. You see here represented what is called the tendinous zone or tendinous ring. The fibres start from this tendinous ring, wind round the heart in a spiral manner, and, having come to the apex of the heart, enter it and run straight back again towards the ring. In this model I endeavour to show you what I cannot show by a diagram. Supposing this to represent the heart, here is the tendinous ring which surrounds the great vessels that issue from the heart. In order to avoid confusion, I have only placed four muscular fibres on the model. Following the red one, you see it starts from this zone, twines round the heart spirally, and, as you see in the diagram, makes a complete revolution and comes back directly towards the spot from which it started. It now leaves the outside surface of the heart and enters the heart, and you may see it running almost in a straight line up the inner side of the heart. The outer fibres, therefore, wind spirally round the heart, enter it at the apex, and form, as they return to the tendinous ring or zone from which they started, the lining of the internal portion of the cavities of the heart. Imagine millions of such fibres arranged in this spiral orbicular manner, as it was called by Borelli, and you will have an idea of the complexity of the arrangements of the heart. There is a necessary space left between these outer spiral fibres and the returning fibres which you see running through the interior. This space is filled in the heart with the proper fibres. The proper

fibres wind each in a spiral manner round their respective cavities and go back again, so that we have three distinct groups of spiral fibres arranged apparently in the most hopeless intricacy, but in reality according to extremely simple and beautiful geometrical laws. The law which regulates the arrangement of these fibres, so far as I have succeeded in discovering it, is this: the spiral fibre which goes round the entire of the two cavities of the heart describes a complete circumference of 180° before its return, whereas the spiral fibres that surround the right and left ventricles of the heart respectively describe an entire circumference and one-fifth over before they come back. This extra fifth of a turn I believe is for the purpose of giving a twisting motion to the cavity, just as you would wring a cloth, so that it should be completely emptied at the close of the stroke and no blood left remaining in the cavity, or even the least loss of force occasioned.

I shall take this opportunity of publicly thanking Dr. Sibson for his kindness in having placed at my disposal his unrivalled collection of dissected hearts. He allowed me to take them with me to Dublin and retain them for twelve months for study; and he placed not only his preparations but all his stores of knowledge at my disposal. As he is not present, and therefore cannot blush at what I have to say, I will add that his great knowledge of the pathology of the heart is fully equalled by the kindness with which he places that knowledge at the disposal of the humblest searcher after truth. Jealousy is so often the characteristic of scientific men, that it is pleasant to meet a man who is entirely free from it. I suppose that this quality of jealousy which men of science possess entitles them to be considered as rising to the level of the better and the gentler sex. In the first place, each of these fibres is so arranged that it is capable of contracting to eight-ninths of its length, because I find that each of these fibres is the same length: the length of the common fibres is the same, and the length of each group of proper fibres is the same, but of course the two groups differ from each other in length. Now, since each of these fibres is so arranged spirally and is of the same length, and is capable of contracting to its full extent when ordered to do so by the brain, you will see that, as far as they are concerned, the principle of least action has been fulfilled. But there is a remarkable opportunity of applying to this case a crucial test of whether the principle of least action is or is not the great principle in muscular mechanics that I assert it to be. I have two groups of fibres, one surrounding the two cavities and another group of fibres surrounding one cavity, and by the application of a little geometrical manipulation I was able to arrive at a very remarkable result.

If I call L the length of one of these spiral fibres going round the entire heart, the volume of the whole heart will be proportional to the cube of L being a linear symmetrical dimension, the volume of the whole heart will be proportional to its cube; so that $L^3 - L'^3$ will be proportional to the difference in the volume of the heart before and after contraction. But the difference in the volume of the heart before and after contraction is the sum of the volumes of the two cavities.

I will call λ and ρ the left and right ventricles. If we take the fibres that go round a single cavity, I find that if l and l' represent their lengths before and after contraction, that in like manner $l^3 - l'^3$ will be proportional to the volume of the left ventricle.

Therefore, if the principle of least action be true, I can predict a thing that at first sight appears very strange. I can find the ratio which the volumes of the two cavities bear to each other by the measurement of the lengths of the fibres that surround them. On measuring these fibres it comes simply to this. Let L be the length of the fibres that go round the entire heart; let l be the length of the fibres that go round the left ventricle. Find those lengths and cube them. The ratio of those cubes will be proportional to the sum of the right and left ventricles divided by the left. There are theoretical grounds which I believe are almost of themselves sufficient to entitle us to believe that these two cavities are of equal volume, and therefore that this fraction will come out equal to 2. I have taken, however, a more certain mode of determining this by collecting together all the observations of direct measurement of these volumes that I can find, and I find that the mean is 2.125. From theoretical grounds I believe that more accurate experiments and observations will prove that the decimal fraction of an eighth must be struck off, and that the true proportion is represented by 2. Certainly 2 is the number given by the most accurate of the ten observers. But now to my verifications. I measured the lengths of the common fibres in the heart of a great number of oxen, and I find it to be 10.875 inches. I measured the length of the fibres that go round the left ventricles in the same hearts, and I find as the mean of many measurements 8.625. Well, I suppose there is no one present here who is a good enough arithmetician to tell me at sight what the ratio of the cubes of those numbers would be. I have cubed the numbers, and their ratio comes out 2.004. I believe that to be a remarkable result, and to entitle us to assert that the

principle of least action applied to the problem of the heart is capable of solving it a step beyond what it has been solved, and bringing us within reach of the knowledge of one more of the wonderful laws of the Creator. How it would rejoice the soul of the great Kepler if he had known that the ratio of the length of the fibres in his own heart was in the proportion of cube root of 2 to 1! Divine Geometry! Queen and mistress of philosophy, thy right to rule the sciences shall never be disputed!

This principle of least action applied to the heart consists, as you will see, simply in making every fibre and particle of the heart do the entire amount of work that it is capable of doing. In a somewhat analogous case, mechanical engineers have attempted to produce the same effect. If you take a fowling-piece, it is a matter of comparatively little consequence how the fibres are arranged if they be of ordinary strength. One fibre helps the other, and they all do their work; therefore, no one thinks of inquiring how the fibres of a fowling-piece are arranged; they are capable of resisting an explosion, because they all assist in doing it. But when you come to build up monster guns like Mr. Robert Mallet's great mortar, or Sir William Armstrong's six hundred pounder, you have to calculate with the utmost nicety what your contrivances and arrangements must be, so as to compel every fibre of steel or wrought iron in these great guns to bear its share in the work. Some few days ago, I went to the Woolwich Arsenal, to see the Armstrong six hundred pounder which exploded. It consists of eight rings; the first, sixth, and eighth rings were burst; the remaining five were not injured. Now, this gun, although a great attempt to solve the problem, was not a perfect gun, because a perfect gun would burst in such a manner that all the eight rings would give way together, each perishing in the effort to resist the explosion. That which human skill is not able to effect, is solved in the arrangement of the fibres of the heart of every person in this room.

I shall now apply the principle of least action to the case of ellipsoidal muscles. We call an ellipsoidal muscle a muscle that surrounds a cavity—a muscular bag surrounding a cavity which generally contains fluids. In attempting the solution of the problem of an ellipsoidal muscle, I found myself brought into contact with a problem in architecture which has baffled architects for many years: I mean the problem of the equilibrium of an elliptical dome. Every portion of a curved ellipsoidal muscle forms a portion of a small flat dome; and to determine the equilibrium of tensions and strains amongst the muscular fibres of such an animal structure, is the same thing as solving the problem in architecture of what are the strains in various directions in an elliptical dome. I believe I have succeeded completely in solving the problem; and I have done so by an application of pure geometry, in which I have not used a single letter of analysis. The difficulty of constructing equilibrated domes may be illustrated when I tell you that, with the exception of the Pantheon in Paris (fortunately saved from destruction), there is not a truly equilibrated dome in existence. The dome of St. Paul's, in our own city, is propped up with double chains of iron, and other chains of timber and lead put on to cover the defects in the original structure of the dome. Even Sir Christopher Wren was not able, from his want of knowledge of the solution of this problem, to apply the principles of architecture to make the dome of St. Paul's stand by its own intrinsic strength without support. In the great dome of St. Peter's, at Rome, many hoops of iron are employed which were never intended by the great mind of Michael Angelo, who conceived it. They are confessedly failures. Brunelleschi's octagonal dome at Florence is perfectly equilibrated; but then it is octagonal. No case exists, I believe, of a self-supporting perfectly equilibrated spherical dome but that of the Pantheon at Paris. An attempt has been made in the construction of the roof of the Albert Hall, to make an elliptical dome, but whether that construction has been successfully carried out on the principle of least action, I cannot say. The principle of least action applied to the building of a dome would require that not a single pound of material more than was sufficient was used in any part of it. The solution of the problem is so simple that I will venture to give you the result of it. Here is an ellipse that represents a section of the elliptical dome of the Hall of Albert the Good, the father of our future king. I draw a line in any direction from the centre, and I require a construction which shall give me the strain which the structure must be capable of bearing in that direction. The problem requires me to draw a line in every possible direction, radiating from the top of the dome, and to assign what amount of strength I must give the materials in that direction. In the required direction draw a radius, and draw a tangent where the radius meets the ellipse, and let fall a perpendicular on that tangent. The strain along this radius must be made proportional to the square of the perpendicular dropped on the corresponding tangent. That construction is so simple that a stonemason or a carpenter could apply it. For example, if he has an elliptical dome in which the major

axis is double the minor axis, the squares of the perpendiculars will give him that the strength in the direction of the long axis must be four times the strength in the lesser axis.

I applied this principle of equilibrium to the case of the muscle which is used in placental animals for causing the birth of the young. This muscle is produced by Nature for a special purpose. As soon as it has accomplished that purpose, it is carefully removed; and therefore, if we could find in any part of Nature a test for the principle of least action, we ought to find it here. If the muscle be made by Nature too strong for the purpose intended, there is a waste of material, a waste of force; if it be made too weak, the life of the animal is risked. It is not the case of a muscle which has to overcome a resistance which it tries from day to day. If I go into a gymnasium and exercise every muscle in my body, there will be growth of the muscles of my limbs, because there is a growing resistance day by day; but the muscle that causes the birth of the young animal never tries its strength against the resistance it is required to overcome until the moment of actual exercise arrives. By measuring the curvatures and thickness of the muscles, I ascertained that inside the ellipsoidal uterine muscle a hydrostatical pressure of 3.4 lbs. per square inch can be produced by its contraction. Dr. Matthews Duncan of Edinburgh, and Professor Tait of the same University, have made a number of valuable experiments on the strength of the membranes which this muscle has to rupture. They have tabled them; and in no case do they find that the resistance exceeds 3.1 lbs. per square inch. I am entitled to regard this as a remarkable example of the principle of least action in Nature. There is an adaptation of force to resistance—the force produced in order to overcome resistance for months not exercised against it, and found exactly of the right degree of strength, not too strong or too weak, when the time of trial comes. Here we see Nature attaining perfection at a single bound, by a process of foresight. There is no evidence whatever of the supposed necessity of an endless succession of previous blunders.

I have now to take my leave of you. I have to thank you, as I do sincerely, for the kindness with which you have listened to me; and I sincerely hope that you will make some allowance for the difficulties of my subject, as well as for its novelty, in the task which I have undertaken of laying it before you. I come amongst you bringing you new facts on subjects which your minds are not familiar with, and I labour under the disadvantage of having to place these facts before you in the minimum of time. In fact, I have myself solved, in these lectures, the problem of least effort. I appear as a traveller from a strange country, where I have seen strange things. The pleasantest part of my life has been spent in making these researches. The pleasure of making them—the novelty of the facts which they disclose—encouraged me to come before an audience like this, in the hope of interesting others in taking up similar pursuits. I am but an humble craftsman, collecting a few stones together for the great building of Nature; but after us there must arise some great master-builder, who will perfect the task. The science of Animal Mechanics is only commencing: a vast future is before it. It would be impossible to describe all the results that must come from the careful conscientious combination of geometry and mechanics with the science of comparative anatomy. All these results must come in time. Amongst other applications, I may mention that we are even now in a position to lend valuable aid to the science of geology. You see the fossil skeletons; you see the points or processes on their bones where certain muscles were attached. We now can calculate with precision, as, I believe, within a few ounces, what the weights, the forms and sizes, of the muscles that supplied those extinct animals, must have been: therefore, if it were worth the trouble, we could reclothe with flesh the fossil megatherium, and restore the perfect form of outline which its body would have when covered with its muscles.

In conclusion, let us suppose that this and all the other branches of science which man can study have been carried to their utmost perfection; let us suppose that man has fully explored all the secrets of Nature he is capable of obtaining, and has found a key that unlocks all her mysteries: he will still find himself only a worshipper in the temple and before the altar of an unknown God, whose true nature and moral relations to himself must be sought from other sources than those which Nature furnishes. There are truths in the system of things as real and as certain as any laws of Nature, although we cannot perceive them with our senses. My eyes cannot see them; my ears may not hear them; nor can I touch them with my hands; but they are there. I know them to be true, and that they will endure when Nature and her laws have passed away like the memory of a troubled dream. I testify what I have seen. I have many a time seen an humble earnest faith in these unseen truths cause a smile of joy to play upon the pale face distorted with pain like a sunbeam dancing

on the bosom of the troubled ocean. I have seen those truths illumine with a light from heaven the dim eyes soon to be closed for ever by the cold hand of death. These truths are more dear to me than all that Nature can teach me, because they touch my inner life and consciousness. I learned those truths as a little child upon my mother's knee; I cherish them in my heart of hearts; and in defence of them, if opportunity should offer and God should count me worthy, I would gladly lay down my life.

DUST AND DISEASE:

BEING

*Part of a Lecture delivered at the Royal Institution of Great Britain.**

By JOHN TYNDALL, LL.D., F.R.S.,
Professor of Natural Philosophy in the Institution.

AFTER some preliminary experiments and observations on the polarisation of light by fine dust, by the sky, and the coarser particles of smoke, Professor Tyndall proceeded:

In looking at this illuminated dust, we may ask ourselves what it is. How does it act, not upon a beam of light, but upon our own lungs and stomachs? The question at once assumes a practical character. We find, on examination, that this dust is of organic matter—in part living, in part dead. There are among it particles of ground straw, torn rags, smoke, the pollen of flowers, the spores of fungi, and the germs of other things. But what have they to do with the animal economy? Let me give you an illustration to which my attention has been lately drawn by Mr. George Henry Lewes, who writes to me thus.

"I wish to direct your attention to the experiments of von Recklinghausen, should you happen not to know them. They are striking confirmations of what you say of dust and disease. Last spring, when I was at his laboratory in Würzburg, I examined with him blood that had been three weeks, a month, and five weeks, out of the body, preserved in little porcelain cups under glass-shades. This blood was living and growing. Not only were the amoeba-like movements of the white corpuscles present, but there were abundant evidences of the growth and development of the corpuscles. I also saw a frog's heart still pulsating which had been removed from the body (I forget how many days, but certainly more than a week). There were other examples of the same persistent vitality or absence of putrefaction. Von Recklinghausen did not attribute this to the absence of germs—germs were not mentioned by him; but when I asked him how he represented the thing to himself, he said the whole mystery of his operation consisted in keeping the blood *free from dirt*. The instruments employed were raised to a red heat just before use, the thread was silver-thread and was similarly treated, and the porcelain cups, though not kept free from air, were kept free from currents. He said that he often had failures, and these he attributed to particles of dust having escaped his precautions."

Professor Lister, who has founded upon the removal or destruction of this "dirt" great and numerous improvements in surgery, tells us of the effect of its introduction into the blood of wounds. He informs us what would happen with the extracted blood should the dust get at it. The blood would putrefy and become foetid; and when you examine more closely what putrefaction means, you find the putrefying substance swarming with organic life, the germs of which have been derived from the air.

Another note which I received a day or two ago has a bearing particularly significant at the present time upon this question of dust and dirt, and the wisdom of avoiding them. The note is from Mr. Ellis of Sloane Street, to whom I owe a debt of gratitude for advice given to me when sorely wounded in the Alps. "I do not know," writes Mr. Ellis, "whether you happened to see the letters, of which I enclose you a reprint, when they appeared in the *Times*. But I want to tell you this in reference to my method of vaccination as here described, because it has, as I think, a relation to the subject of the intake of organic particles from without into the body. Vaccination in the common way is done by scraping off the epidermis, and thrusting into the punctures made by the lancet the vaccine virus. By the method I use (and have used for more than twenty years) the epidermis is lifted by the effusion of serum from below, a result of the irritant cantharidine applied to the skin. The little bleb thus formed is pricked, a drop of fluid let out, and then a fine vaccine point is put into this spot, and after a

minute of delay it is withdrawn. The epidermis falls back on the skin and quite excludes the air—and not the air only, but what the air contains.

"Now mark the result: out of hundreds of cases of revaccination which I have performed, I have never had a single case of blood-poisoning or of abscess. By the ordinary way the occurrence of secondary abscess is by no means uncommon, and that of pyæmia is occasionally observed. I attribute the comparative safety of my method, first, to the exclusion of the air and what it contains; and, secondly, to the greater size of the apertures for the inlet of mischief made by the lancet."

I bring these facts forward that they may be sifted and challenged if they be not correct. If they be correct, it is needless to dwell upon their importance; nor is it necessary to say that, if Mr. Ellis resigned himself wholly to the guidance of the germ-theory, he could not have acted more in accordance with the requirements of that theory than he has actually done. It is what the air contains that does the mischief in vaccination. Mr. Ellis's results fall in with the general theory of putrefaction propounded by Schwann, and developed in this country with such striking success by Professor Lister. They point, if true, to a cause distinct from bad lymph for the failures and occasional mischief incidental to vaccination; and, if followed up, they may be the means of leaving the irrational opposition to vaccination no ground to stand upon, by removing even the isolated cases of injury on which the opponents of the practice rely.

We are now assuredly in the midst of practical matters. With your permission, I will recur once more to a question which has recently occupied a good deal of public attention. You know that as regards the lowest forms of life, the world is divided, and has for a long time been divided, into two parties, the one affirming that you have only to submit absolutely dead matter to certain physical conditions to evolve from it living things; the others, without wishing to set bounds to the power of matter, affirming that in our day no life has ever been found to arise independently of pre-existing life. Many of you are aware that I belong to the party which claims life as a derivative of life. The question has two factors: the evidence, and the mind that judges of the evidence; and you will not forget that it may be purely a mental state or bias on my part that causes me throughout this discussion, from beginning to end, to see on the one side dubious facts and defective logic, and, on the other side, firm reasoning and a knowledge of what rigid experimental inquiry demands. But, judged of practically, what, again, has the question of spontaneous generation to do with us? Let us see. There are numerous diseases of men and animals that are demonstrably the products of parasitic life, and such disease may take the most terrible epidemic forms, as in the case of silkworms of France in our day. Now, it is in the highest degree important to know whether the parasites in question are spontaneously developed, or are wafted from without to those afflicted with the disease. The means of prevention, if not of cure, would be widely different in two cases.

But this is by no means all. Besides these universally admitted cases, there is the broad theory now broached and daily growing in strength and clearness—daily, indeed, gaining more and more of assent from the most successful workers and profound thinkers of the medical profession itself—the theory, namely, that contagious disease generally is of this parasitic character. If I had heard or read anything since to cause me to regret having introduced this theory to your notice more than a year ago, I should here frankly express that regret. I would renounce in your presence whatever leaning towards the germ-theory my words might then have betrayed. Let me state in two sentences the grounds on which the supporters of the theory rely. From their respective viruses you may plant typhoid fever, scarlatina, or small-pox. What is the crop that arises from this husbandry? As surely as a thistle rises from a thistle-seed, as surely as the fig comes from the fig, the grape from the grape, the thorn from the thorn, so surely does the typhoid virus increase and multiply into typhoid fever, the scarlatina virus into scarlatina, the small-pox virus into small-pox. What is the conclusion that suggests itself here? It is this:—That the thing which we vaguely call a virus is to all intents and purposes a *seed*; that in the whole range of chemical science you cannot point to an action which illustrates this perfect parallelism with the phenomena of life—this demonstrated power of self-multiplication and reproduction. There is, therefore, no hypothesis to account for the phenomena but that which refers them to parasitic life.

And here you see the bearing of the doctrine of spontaneous generation upon the question. For if the doctrine continue to be discredited as it has hitherto been, it will follow that the epidemics which spread havoc amongst us from time to time are not spontaneously generated, but that they arise from an ancestral stock whose habitat is the human body itself. It is not on bad air or foul drains that the attention of the physician will primarily be fixed, but upon disease-germs which no bad

* For this report, we are indebted to our contemporary *Nature*.

air or foul drains can create, but which may be pushed by foul air into virulent energy of reproduction. You may think that I am treading on dangerous ground, that I am putting forth views that may interfere with salutary practice. No such thing. If you wish to learn the impotence of medical science and practice in dealing with contagious diseases, you have only to refer to a recent Harveian oration by Dr. Gull. Such diseases defy the physician. They must burn themselves out. And, indeed, this, though I do not specially insist upon it, would favour the idea of their vital origin. For if the seeds of contagious disease be themselves living things, it will be difficult to destroy either them or their progeny without involving their living habitat in the same destruction.

And I would ask you to be cautious in accepting the statement which has been often made, and which is sure to be repeated, that I am quitting my own *métier* when I speak of these things. I am not dealing with professional questions. I am writing no prescription, nor should I venture to draw any conclusion from the condition of your pulse and tongue. I am dealing with a question on which minds accustomed to weigh the value of experimental evidence are alone competent to decide, and regarding which, in its present condition, minds so trained are as capable of forming an opinion as on the phenomena of magnetism and radiant heat. I cannot better conclude this portion of my story than by reading to you an extract from a letter addressed to me some time ago by Dr. William Budd of Clifton, to whose insight and energy the town of Bristol owes much in the way of sanitary improvement.

"As to the germ-theory itself," writes Dr. Budd, "that is a matter on which I have long since made up my mind. From the day when I first began to think of these subjects, I have never had a doubt that the specific cause of contagious fevers must be living organisms. It is impossible, in fact, to make any statement bearing upon the essence or distinctive characters of these fevers, without using terms which are of all others *the most distinctive of life*. Take up the writings of the most violent opponent of the germ-theory, and, ten to one, you will find them full of such terms as 'propagation', 'self-propagation', 'reproduction', 'self-multiplication', and so on. Try as he may—if he have anything to say of those diseases which is characteristic of them—he cannot evade the use of these terms or the exact equivalents to them. While perfectly applicable to living things, these terms express qualities which are not only inapplicable to common chemical agents, but, as far as I can see, actually inconceivable of them."

Once, then, established within the body, this evil form of life, if you will allow me to call it so, must run its course. Medicine as yet is powerless to arrest its progress, and the great point to be aimed at is to prevent its access to the body. It was with this thought in my mind that I ventured to recommend, more than a year ago, the use of cotton-wool respirators in infectious places. I would here repeat my belief in their efficacy if properly constructed. But I do not wish to prejudice the use of these respirators in the minds of its opponents by connecting them indissolubly with the germ-theory. There are too many trades in England where life is shortened and rendered miserable by the introduction into the lungs of matters which might be kept out of them. Dr. Greenhow has shown the stony grit deposited in the lungs of stone-cutters. The black lung of colliers is another case in point. In fact, a hundred obvious cases might be cited, and others that are not obvious might be added to them. We should not, for example, think that printing implied labours where the use of cotton-wool respirators might come into play; but I am told that the dust arising from the sorting of the type is very destructive of health. I went some time ago into a manufactory in one of our large towns, where iron vessels are enamelled by coating them with a mineral powder and subjecting them to a heat sufficient to fuse the powder. The organisation of the establishment was excellent, and one thing only was needed to make it faultless. In a large room a number of women were engaged covering the vessels. The air was laden with the fine dust, and their faces appeared as white and bloodless as the powder with which they worked. By the use of cotton-wool respirators, these women might be caused to breathe air more free from suspended matters than that of the open street. Over a year ago I was written to by a Lancashire seedsman, who stated that during the seed-season of each year his men suffered horribly from irritation and fever, so that many of them left his service. He asked me could I help him, and I gave him my advice. At the conclusion of the season this year he wrote to me that he had simply folded a little cotton-wool in muslin, and tied it in front of the mouth; and that he had passed through the season in comfort, and without a single complaint from one of his men.

The substance has also been turned to other uses. An invalid tells me that at night he places a little of the wool before his mouth, slightly moistening it to make it adhere; that he has thereby prolonged his

sleep, abated the irritation of his throat, and greatly mitigated a hacking cough from which he had long suffered. In fact, there is no doubt that this substance is capable of manifold useful applications. An objection was urged against the use of it: that it became wet and heated by the breath. While I was casting about for a remedy for this, a friend forwarded to me from Newcastle a form of respirator invented by Mr. Carrick, an hotel-keeper at Glasgow, which meets the case effectually, and, by a slight modification, may be caused to meet it perfectly. It consists of a space under a partition of wire-gauze intended by Mr. Carrick for "medicated substances", and which may be filled with cotton-wool. The mouth is placed against an aperture, which fits closely round the lips; and the air enters thy mouth through the cotton-wool by a light valve, which is lifted by the act of inhalation. During exhalation, this valve closes; another breath escapes by a second valve into the open air. The wool is thus kept dry and cool; the air passing through it being filtered of everything it holds in suspension.*

EXFOLIATION OF THE LINING OF THE BLADDER.

By J. J. PHILLIPS, M.D.,

Assistant Obstetric Physician, Guy's Hospital.

THE interesting case recorded in the JOURNAL of June 10th, by Dr. Wardell of Tunbridge Wells, in which there was exfoliation of the mucous membrane of a female urinary bladder, although doubtless rare, is not, as Dr. Wardell supposes, unique. At a meeting of the Obstetrical Society, held on December 4th, 1861, Mr. Spencer Wells exhibited a cast of a bladder, expelled by a patient who a few weeks previously had been delivered of her first child with instrumental assistance after considerable difficulty. Symptoms of cystitis followed; but after the expulsion of the membrane recovery rapidly ensued. The specimen was examined by Dr. Harley and Mr. Wells, and was found to consist of the whole of the mucous membrane and some portions of the muscular coat of a dilated bladder. At a subsequent meeting, Dr. Tanner referred to a specimen in the museum of the College of Surgeons, which was found in the interior of a male bladder after death, and which is described as "a structure exactly resembling the mucous membrane of a bladder separated as a slough in one piece".

A case presenting many points of resemblance to that recorded by Mr. Wells was brought before the Pathological Society by Dr. Martyn in 1863, in which exfoliation followed long retention of urine during labour; and in the course of the same year Dr. Wilks and Mr. Henry Lee exhibited specimens of the kind found after death within the bladder, perfectly detached from the muscular coat. In the year 1868, the following case, which has not hitherto been published, came under my notice.

M. J., aged 21, was seen by me in consultation on the 11th September. She had been delivered of her first child on the 8th of that month, and the medical man who was called in on that day said that he found her with the child's head firmly wedged in the pelvis, and her bladder extending to the umbilicus. It was said that she had been in labour four days. Considerable extractile force with the forceps had to be used to complete delivery. On the 11th, the lower part of the vagina and the perinæum were in a state of superficial slough from the long-continued pressure. These parts, however, healed well; but the patient was admitted under my care into the Waterloo Road Infirmary on the 7th of October on account of the urinary troubles from which she suffered. There was at that time almost complete incontinence of urine, but no communication existed between the bladder and the vagina or uterus. The meatus urinarius was so dilated as almost to admit the tip of the little finger, and a small portion of the anterior part of the urethra had sloughed away. The day after admission she passed from the bladder a membranous substance, the whole of one surface of which was coated with a phosphatic deposit, and which, when floated in water, appeared to form a nearly complete cast of the bladder. This patient improved under treatment; and a week later, when the bladder was being washed out, small shreds of a similar character were expelled. The last exfoliation took place on the 31st October, when a piece of the mucous membrane and its submucous tissue came away, having its inner surface covered with phosphates.

Judging from the great frequency with which retroversion of the gravid uterus produces retention of urine, and also leads to expulsion of its own contents between the third and fourth months of gestation, and guided by the history of Dr. Wardell's case, I venture to suggest that this condition may have existed.

* Mr. Ladd, of Beak Street, sells these respirators.

LECTURES

ON THE

EXPERIMENTAL INVESTIGATION OF THE ACTION OF MEDICINES.

BY T. L. BRUNTON, M.D., D.Sc.,
Lecturer on Materia Medica at the Middlesex Hospital.

III.—ARTIFICIAL CIRCULATION: INVESTIGATION OF BLOOD-PRESSURE.

Artificial Circulation of Blood.—Circulation of Warm and of Cold Blood.—Fever.—Mode of Conducting Artificial Circulation.—Application of this Method to Pharmacological Investigations.—Schema of the Circulation.—Circulation in the Living Body.—Importance of the Arterial Elasticity.—Arterial Tension or Blood-Pressure.—Oscillations in it produced by the Heart and Respiration.—Causes of Variation in the Blood-Pressure.—Influence of Nerves upon it.—Cardiac Ganglia.—Inhibitory Nerves of Heart.—Quickening Nerves of Heart. Vaso-motor Nerves.—Vaso-inhibitory Nerves.—Action of Counter-irritants.—Tabular View of the Causes of altered Pulse-Rate and Blood-Pressure.—Application of this to Pathology.—Experimental Examination of Blood-Pressure.—Forms of Manometer.—Kymographion.—Mode of Using the Kymographion.—Reduction of the Kymographion Tracings.—Mode of Recording Experiments.—Graphic Method of Representing Experiments.

APPLICATION TO PATHOLOGY.—The brief sketch of the circulation which I have given, will enable you to understand and appreciate the meaning of the changes produced in our circulation by any drug, and to explain the facts we may meet with in the course of an investigation. I may remind you that the alterations in the pulse-rate and blood-pressure which we meet with in disease, as well as those produced by drugs, are due to some one or other of the causes mentioned in the previous table; and whenever you meet with a quick, slow, weak, or irregular pulse, you must try to find out to which of these causes it is due, in order that you may be able to apply scientifically the proper remedy.

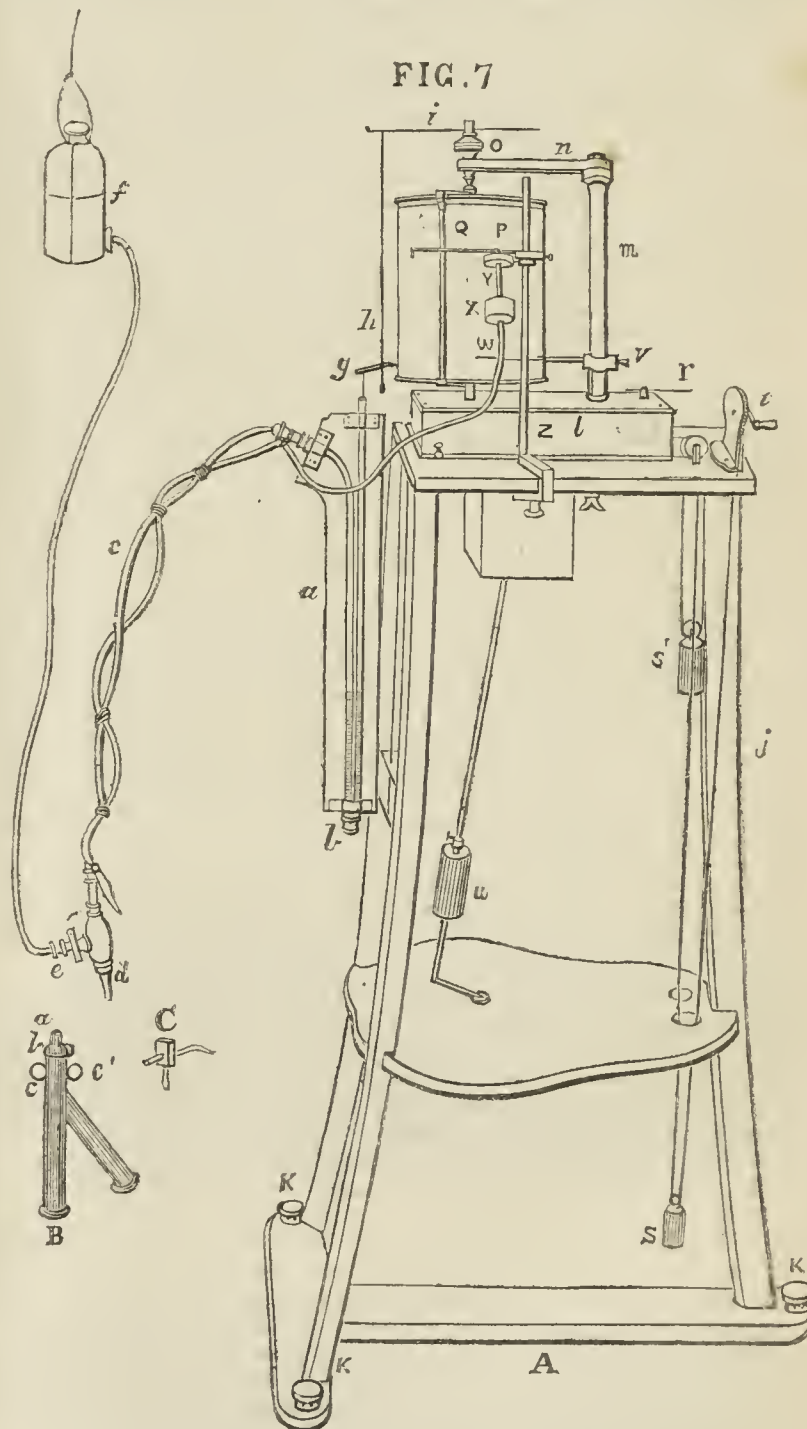
EXPERIMENTAL EXAMINATION OF BLOOD-PRESSURE: FORMS OF MANOMETER.—As the life and health of the body and of the organs comprising it depend on the supply of blood to them—and this, as we have already seen, is closely associated with the arterial pressure—the observation of the effects of drugs on it naturally forms one of the most important parts of an investigation into their action. The first to measure the blood-pressure was Hales, who simply connected a glass-tube with an artery, and noted the height to which the blood rose in it. Poiscuille improved upon this method by substituting a bent tube, partially filled with mercury, for the straight tube, and estimating the pressure from the difference in the level of the mercury in the two limbs. A solution of carbonate or bicarbonate of soda was introduced into the tube between the mercury and the blood in order to prevent its coagulation. The bent tube, partly filled with mercury, is called a *haemadynamometer*, or, more generally, a *manometer*. The height of the mercury is read off from a scale fixed behind the tube. Usually both limbs of the tube are of equal diameter, and the blood-pressure is then ascertained by doubling the height of the mercury in one limb above zero and subtracting a fraction, which varies with the specific gravity of the solution of soda used. The height must be doubled, because the mercury descends as much below zero in the one limb as it rises above it in the other; and a fraction of the whole is subtracted for the additional weight of the column of soda solution, which enters one limb as the mercury rises in the other.

A very simple manometer, which will show the mean blood-pressure as well as the maximum and minimum between which it oscillates, may be made by passing two straight glass-tubes about sixteen inches long through the cork or India-rubber stopper of a small wide-mouthed bottle, and fixing behind them a graduated cardboard scale. The lower end of one tube must be nearly closed in the blow-pipe flame, and both pushed down till they almost touch the bottom of the bottle. A third bent tube is inserted into the stopper, reaching only to its under surface, and a piece of India-rubber tubing is attached to its upper end for the purpose of connecting it with the artery. Some mercury is then poured into the bottle, so as to stand a little above the ends of the tubes, and both it and the India-rubber tube are filled with a saturated solution of bicarbonate of soda and connected with the artery. The mercury rises and falls in the open tube with every pulsation; but in the one with the constricted end the resistance to its movement is so great that it can only rise and fall slowly, so that, before its upward oscilla-

tion has had time to show itself, its descent has begun, and *vice versa*. The upward and downward oscillations thus balancing each other, the mean pressure only is shown.

The oscillations in the unconstricted tube are so rapid that it is impossible for the eye to follow them exactly; and this difficulty led Ludwig to conceive the idea of making them register themselves by means of a slender rod swimming on the surface of the mercury, and bearing at its upper end a pen which moved up and down on a piece of paper fixed on a revolving cylinder. The vertical height of the tracing thus produced showed the blood-pressure, while the horizontal distance from one point to another on it indicated the time between them.

This instrument is called a *kymographion*; and in devising it, Ludwig introduced for the first time into physiology that method of self-registration which is now generally applied to all kinds of vital phenomena, and has already done much to render our knowledge exact. That form of it which is used by Traube and made by Sauerwald of Berlin is shown in fig. 7. It consists of a metal cylinder (*p*) supported



A. Ludwig's Kymographion. *a'*. The manometer. Instead of one simple bent glass tube, it consists of two tubes fixed on a piece of wood, and joined by a piece of metal *b*, which may be unscrewed for cleaning the tubes. *c* is a tube of soft lead, for connecting the manometer with the artery. One end of it is screwed to the manometer, and the other is attached to a stopcock *d*. *d* is a stopcock attached to *c*, and may be connected with the tube *B* in the artery by a piece of India-rubber tubing. It is bored in a T-shape, and is perforated in the centre by an additional perpendicular hole, into which is put a hollow plug *e*. *f* is a flask containing saturated solution of bicarbonate of soda, and connected by India-rubber tubing with *e*. When the clip on the India-rubber tube just above *e* is removed, and the stopcock turned longitudinally, soda solution will flow into *c* as well as out of *d*. By turning it transversely, the

opening towards *c* may be closed, and soda will then only run out through *d*. This is done when we wish to wash out the cannula with soda without altering the level of the mercury in *a*. *g* is a glass pen attached to the top of a glass rod or swimmer, which rests on the surface of the mercury in *a*. *h* is a thread of unspun silk, with a small weight attached to it. It rests against the pen *g*, and keeps it constantly applied to the paper without impeding its movements. *i* is an iron wire, from which the thread *h* is suspended. *j* is the wooden frame bearing the clockwork and revolving cylinder. *k* are three screws to level the frame. *l* is the clockwork. *m* is an upright, and *n* a horizontal bar, which support a pivot *o*. *p* is a metal cylinder, which carries the paper. *q* is a small metal bar for holding the paper on the cylinder. It is hinged to the lower edge of the cylinder, and caught by a spring at its upper edge. It lies in a hollow in the cylinder, so that its outer surface does not project above it. When a new paper is to be put on, the spring catch at the upper end of *q* is raised, *q* pulled out, the old paper removed, and the edges of the new one placed under *q*. It is then pushed down, its upper end is caught by the spring, and the paper is securely held. *r* is a catch for stopping the movement of the clockwork. *s* and *s'* are two weights to drive the clockwork. *t* is a rack for winding up the weight *s'*. *u* is a pendulum, with a movable bob, to regulate the motion of the clockwork and cylinder. By moving the bob up or down, the motion may be made quicker or slower. *v* is a pencil stuck through a piece of cork, and fastened to the upright *m*, so as to draw a line on the paper at the same level as *g*, when there is no pressure on the mercury in the tube. The blood-pressure is estimated by the height of the curve traced by *g*, above the zero line thus drawn. *y* is one of Marey's tympana, which is supported on a movable rod *z*, and may be used for registering either the respiration or the form of the pulse-wave. It consists of a shallow cup of metal, over whose top a piece of India-rubber is tightly stretched. A metal tube passes into the interior of the cup, and a light lever lies over the upper surface of the India-rubber, and is firmly connected with it. When air is blown into the interior of the cup, the India-rubber bulges and raises the lever; when air is sucked out, it becomes depressed and draws the lever down. When used to register the respirations, it is simply connected with a tube in the trachea of the animal, or with a mask fitted before its nose. As the piece of India-rubber stretched over *y* is thin, it would be blown out, and perhaps burst, by the pressure, if we were to connect it directly with the artery. One of Marey's sphygmoscopes is, therefore, introduced between them, when we wish to measure the blood-pressure. The sphygmoscope consists of a little bag of strong India-rubber, enclosed in a piece of glass tubing, connected with the tympanum. The bag is filled with soda solution, and connected with the artery. Each time that the pressure rises in the artery, the bag becomes distended, and forces some of the air out of the glass tube into the tympanum, and raises the lever; and when the pressure diminishes, the bag collapses again, and the lever falls. *x* is a modification of this, designed by my friend Dr. Burdon Sanderson. Instead of a bag enclosed in a tube, it consists of a metal box, across the interior of which a septum of strong India-rubber is stretched. One side of the box is filled with soda solution, and connected with the artery; the other with air, and connected with the tympanum. *w* is a piece of lead tubing for connecting the sphygmoscope *x* with the tube in the artery.

B is a forked tube of German silver or brass for connecting the artery with the kymographion. *a* is a cannula, which is inserted into an artery (see fig. 3A); *b* is a small ring soldered to it, by which it may be tied to the rings *e* on *B*, to prevent it from slipping off; *e* and *e'* are two rings soldered to *B*. By means of ligatures passed through these, *B* may be fastened to the skin or hair of the animal to prevent its being displaced by any sudden movement. The oblique limb of *B* may be connected to *A d* alone by a piece of India-rubber tubing, or to both *A d* and *A w* at the same time by means of a Y glass tube and India-rubber tubing. Another piece of India-rubber tubing is attached to the straight limb *d*, and closed by a clamp or clip. When a clot forms, the clip is taken off, and the clot removed, the tube washed out by a stream of soda solution, and the clip again replaced.

C is the tracing-pen (see fig. 3B). It is stuck horizontally through a piece of cork; another small piece of glass tubing, about three-fourths of an inch long, closed at its upper end, and about one-twelfth of an inch in diameter, or just wide enough to admit the end of the swimmer, is stuck vertically into the same piece of cork.

on a wooden frame (*j*), and caused to revolve at a steady rate by clockwork and pendulum (*l* and *u*). The manometer is fixed to the wooden frame and connected with the artery by tubing of lead and India-rubber. On the mercury in one limb floats a rod or swimmer of glass, to whose upper end is attached a glass pen (*g*), which registers the movements of the mercury on the revolving cylinder.

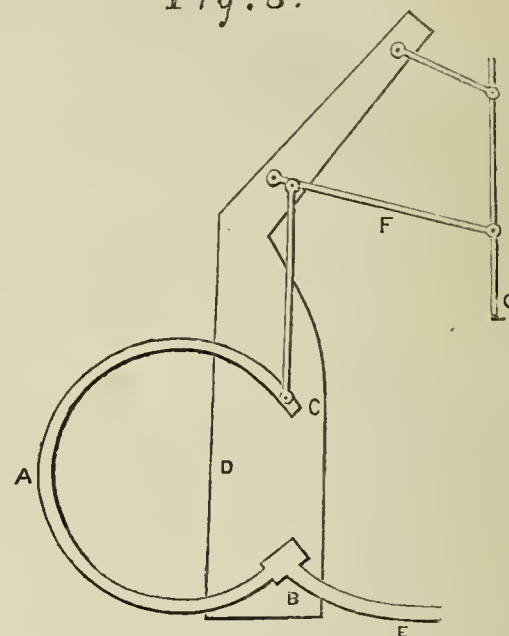
The disadvantage of the mercurial manometer is, that it does not give the true form or extent of the variations of blood-pressure, the inertia of the mercury causing it to oscillate above and below the true value. We may, however, obtain the true form of each oscillation along with the mean pressure by connecting the artery at the same time with the manometer and one of Marey's sphygmoscopes and levers (fig. 6, *x* and *y*) by means of a Y-tube, one end of which is connected to *d* and the other to *w*. In order to obtain the mean pressure we turn the stop-cock (*e*), till on blowing through it only a slow rise and fall of the mercury can be produced, but no sudden oscillation. On then connecting it with the artery the mercurial column shows the mean pressure, while the sphygmoscopic lever registers each oscillation.

Besides this form there are various others on the same principle, some of which have cylinders which wind off a continuous roll of paper from a bobbin, so that a tracing may be taken uninterruptedly for an hour or two without renewing the paper. In order to avoid the inconveniences of the mercurial manometer, Fick has constructed one (Fig. 8) in which the pressure is not measured by the movements of a column of mercury, but by those of a bent hollow tube (*A*) fixed at one end and free at the other. The tube is filled with alcohol, and its fixed end

connected with an artery. At every rise of pressure this tube tends to straighten itself, and this motion of the free end is communicated by it to a lever (*F*) and writing-point (*G*), which records it on a smoked cylinder.

The advantage of this form of kymographion is, that it gives the exact form, duration, and extent, of each pressure-variation. Its disadvantage is, that the tracings it gives are on a small scale, so that it is not so well adapted for showing small oscillations of pressure like those at each heart-beat in the rabbit, although it answers admirably

Fig. 8.



Fick's spring kymographion. *A* is a flat tube of German silver, fixed at one end *B*, to a piece of board *D*. The other end *C* is freely movable. *E* is a tube connecting *A* with the artery. *F* is a lever made of reed, connected to *C*. *G* is the writing point, moved up and down by *F*, and kept perpendicular by another short lever above. The tube *A* is filled with alcohol, and the tube *E* with a soda solution; and *B* is then connected with the artery. Whenever the pressure rises, the tube *A* tends to straighten itself, but it is firmly fixed at the end *B*, and so the end *C* alone moves upwards, and pushes up the lever *F* and the writing point *G*. Whenever the pressure relaxes, the tube bends back again to its original shape, and the point *G* consequently again descends. The tracing is taken by allowing *G* to rest against a revolving cylinder, covered with a piece of paper, which has been smoked either over a gas flame or a paraffin lamp.

for dogs. Another disadvantage is, that the tracing must be taken on smoked paper, and this is more troublesome to manage than white paper and ink.

MODE OF USING THE KYMOGRAPHION.—The kymographion must first be rendered perfectly level by the screws, *KK* (fig. 7). The upper part of the outer tube of *a* and the tube *c*, the India-rubber tube connecting it with *B*, and *B* itself, are then filled with soda solution and the clip at *e* put on. A fresh sheet of paper is put on *p*, the pen (*g*) filled with ink, and the pencil (*v*) adjusted at the same level. A piece of cotton-thread should be drawn through the pen, so that the end projects just beyond the pen's point; this makes the pen write better. The animal is next fixed, a vein exposed for injecting, the cannula (*a*) introduced into an artery in the way already described, the blood being prevented from entering the cannula by a clip placed on the artery. A drop of carbonate of soda solution is placed in the cannula (*a*), the tube (*B*) fitted into it and tied to it by a thread through the ears, *b* and *c*. Two other threads through *e* and *e'* fasten the tube (*B*) to the skin or hair of the animal. The flask (*f*) is raised several feet above the apparatus, and the clip at *e* opened, so as to make the pressure in the manometer and tubes nearly equal to that of the blood in the vessels so as to prevent the blood from filling the tubes. It must not be greater, or the carbonate of soda will pass into the vessels and produce convulsions. The clip at *e* is then replaced and that on the artery removed, the cylinder set in motion, and a tracing of the normal blood-pressure taken.

The drug in solution is now injected into a vein and a fresh tracing taken. At the time the injection is begun a cross should be made on the tracing opposite the pen of the kymographion, and a *O* should be made when the injection is finished. The time at which these were made should be noted on a separate piece of paper, and afterwards copied on to the tracing itself. Instead of putting each time on a fresh piece of paper, two or three may often be taken on one paper by having two or three exactly similar glass pens of the form shown filled with inks of different colours. Each is stuck through a small piece of cork, and into the under side of the cork a small glass tube is put, which will just fit the top of the swimmer. By simply dropping the

glass tube on the end of the swimmer the pen is in its place at once, and can be changed with great facility. The pen is made to write much better by a piece of thread pushed through it and then cut off, so that it merely projects beyond the point like a very fine brush. A small sable brush may also be substituted for the glass pen.

After the experiment has gone on for some little time, a clot is apt to form in the cannula. When this is the case the clip must be replaced on the artery, the stopcock (*d*) turned transversely, so as to keep the mercury at the same height, the clip on the India-rubber tube of *d* B and at *e* A removed, and the tube washed out by a stream of carbonate of soda. Any clot in the cannula is removed by a spill of twisted paper, by a hog's bristle, or by a piece of whalebone. These whalebone-probes are most convenient, as they can be made of any size. A single jet of blood should now be allowed to escape from the artery, so as to make sure that there is no clot in it, the tube again washed out with carbonate of soda, the clips at *e* B and *e* A replaced, that on the artery removed, and the stopcock turned and tracings taken as before.

REDUCTION OF THE KYMOGRAPHION TRACINGS.—It is not only impossible to publish the tracings as they are taken from the kymographion for the benefit of others, but it is extremely difficult to draw any except very general conclusions from them for one's self. Before they can be of much use they must be reduced to tables, or, what is still better, the tables themselves may be graphically represented. In making the tables we must first fix the time at which the different parts of the tracing were made. The time when the tracing was begun and when the injection was made must be noted down at the time in a separate note-book, or, still better, on the tracing itself. In the first tracing it is convenient to take the time when the injection was made, as a starting-point from which to reckon the other periods.

Beginning at this point, then, we divide the abscissa or zero line into parts corresponding to five seconds each, or any other period we think convenient. If the circumference of the cylinder be sixty millimetres, and it revolve once in a minute, each five millimetres of paper will correspond to five seconds' revolution.

Secondly, we must ascertain the blood-pressure at different times. At the point where the injection took place, we draw from the tracing a perpendicular to the abscissa, and another, five, ten, or fifteen seconds further back. The mean pressure is most readily and exactly got by means of a planimeter; but, as this is an expensive instrument and possessed by few, we usually employ ruder methods. The first is to determine the square superficies of the irregular figure contained by the abscissa, the two perpendiculars, and the curve, and then divide it by the length of the abscissa: this gives the mean height of the pressure-curve. The size of the figure is ascertained by placing over it a piece of tracing-paper or glass ruled in square millimetres, and counting the number of squares contained in it. Volkmann cuts the figure exactly out in paper of uniform texture and weighs it. By then comparing its weight with that of a square of given size, the superficies of the figure is easily ascertained. The second method is still simpler, and, though not so exact, takes much less time, and is, therefore, frequently employed. It consists in drawing a straight line from one perpendicular to the other along the curve, so as to cut the pulse- and respiration-waves as nearly as possible in their middle, and leave as much of their surface above as below it. We then measure the height of this line above the abscissa, double it, and subtract from it the fraction of the whole, which represents the column of carbonate or bicarbonate of soda solution which entered one limb of the manometer and pressed on the mercury in it as the mercury rose in the other limb. For a solution of carbonate of specific gravity 1018, this fraction will be about $\frac{1}{27}$ of the whole.

Passing along the curve taken after the drug has been injected, we note the place where any change in pressure has occurred, and here we draw another perpendicular and proceed as before. Thirdly, we obtain the number of pulsations and respirations in a minute by counting the pulse- and respiration-waves between each two perpendiculars, and reckoning from the time between them what the rate of pulse or respiration will be in a minute. As the rate of both may change several times in a minute, and a calculation of this sort would lead to considerable error, we not unfrequently take fifteen seconds as the unit of time instead of a minute.

The way in which the numbers thus obtained may be tabulated, is shown by the following examples of supposititious experiments. These examples have been made by piecing together several experiments of Von Bezold, and show generally the action of atropine, but must not be regarded as accurate descriptions of any one experiment. Even when a continuous roll of paper is employed, instead of several separate pieces, it is often convenient to divide it by lines, and tabulate each part separately, just as when separate pieces of paper are used.

MODE OF RECORDING EXPERIMENTS.

Experiment I, November 5, 18 .

Young rabbit. Weight 1540 grammes. Jugular vein exposed and one cubic centimetre of tincture of opium, containing two grammes in twenty-five cubic centimetres, injected into it. Cannula in the left carotid. Animal otherwise uninjured.

	Time after injection.	Blood- pressure.	Pulse in 15s.	Respiration in 15s.	REMARKS.
TRACING I.					
Tracing begun 2.39. P.M. ....	..	78	60	23	$2\frac{1}{2}$ milligrammes of sul- phate of atropine, dis- solved in 2 cubic centi- metres of water, injected into the jugular vein to- wards the heart.
Injection begun 2.39.15. ....	..	78	60	23	
„ ended 2.39.25. ....	..	80	63	18	
At 2.39.35	10s.	83	65	19	
At 2.40.0	35s.	87	70	20	
TRACING II.					
At 2.40.30	1.5	92	92	22	

Experiment II, November 9, 18 .

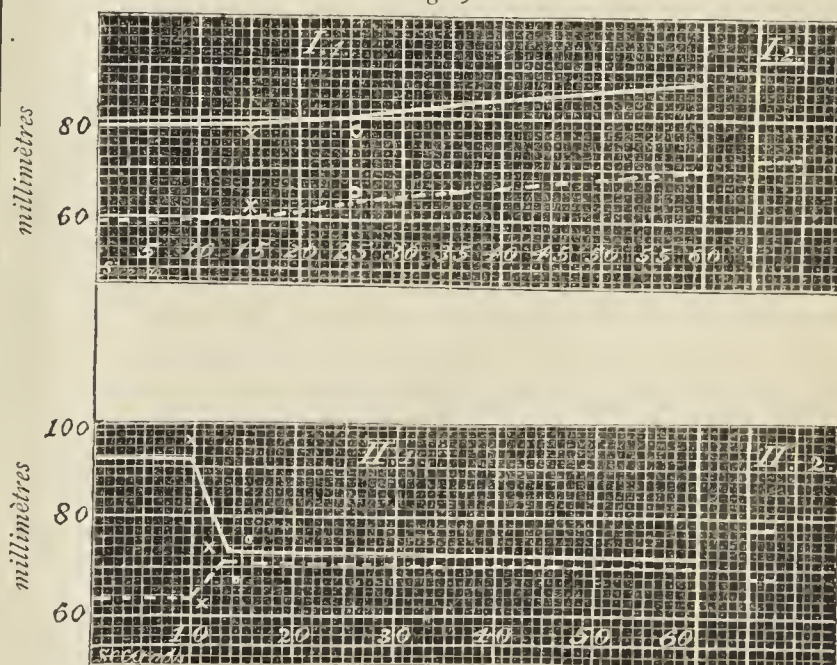
Old rabbit. Weight, 1764 grammes. Jugular vein exposed. Animal not narcotised. Cannula in the left carotid. Animal otherwise uninjured.

	Time after injection.	Blood- pressure.	Pulse in 15s.	Respiration in 15s.	REMARKS.
TRACING I.					
Tracing begun 3.50.0 P.M. ..	..	92	64	26	2 centigrammes of sul- phate of atropine, dis- solved in 2 cubic centi- metres of water, injected into the jugular vein to- wards the heart.
Injection begun 3.50.10.....	..	92	64	26	
At 3.50.13 .....	..	73	..	..
Injection ended 3.53.15.....	..	73	70	24	
At 3.51.0	45s.	72	70	26	
TRACING II.					
At 3.58.0	7.45	78	68	25	

GRAPHIC METHOD OF REPRESENTING EXPERIMENTS.—In looking over a column of figures such as the tables we have now obtained, it is by no means easy to see at once what it really indicates; and it is still more difficult when we have to compare several tables together. For this reason it is of great advantage to convert the tables into curves, from which the result of any experiment can be learned at a glance, and the points of resemblance, or difference in the results of a whole series compared with the greatest ease.

To obtain these graphic curves, we reverse the process by which we formed our tables. We first take a piece of paper ruled in squares, and on it we draw a horizontal line or abscissa, and then a perpendicular

Fig. 9.



lar to one or both ends, and number the spaces along both the abscissa and the perpendicular or ordinate. Those along the abscissa represent periods of time to which we may assign any value which is convenient, seconds, minutes, hours, or multiples of these. The numbers along

the ordinate may represent blood-pressure, pulse-rate, number of respirations, or degrees of temperature; and we may describe curves representing all of these on the same paper, distinguishing them from one another by the use of different coloured inks. Fig. 9 represents graphically the tables of blood-pressure and pulse-rate in Experiments I and II. We begin the pressure-curve by making a dot on the first perpendicular, at a height corresponding to the number 78. Passing along horizontally from this for a space corresponding to fifteen seconds to the abscissa, we make another dot; and at ten seconds further, at a height corresponding to 80, we make a third dot, and so on. We then connect the dots by lines, and thus obtain the curves we wish.

OBSERVATIONS ON THE TREATMENT OF SOME FORMS OF MENORRHAGIA.

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THERE is probably not any one symptom of uterine disease of more frequent occurrence, none certainly of greater gravity, or one causing more alarm to the patient, than menorrhagia. It depends, too, for its origin on such a great variety of causes, not only local, but also constitutional, that the exercise of great caution is necessary on the part of the physician, both as to diagnosis and to treatment; and if he fail to bring to the consideration of the case a perfect knowledge of the conditions capable of giving origin to this symptom, he will certainly meet with numerous disappointments in his practice. The subject, however, of menorrhagia in all its forms would be too extensive for the scope of such a communication as the present one; and I therefore propose to confine myself to the consideration of the treatment most suitable to cases of menorrhagia when occurring in connection with, or dependent on, subinvolution of the uterus, on granular ulceration of the cervix, or on an unhealthy condition of the mucous membrane lining the body of the uterus.

Defective involution of the uterus after labour or abortion occupies a prominent place among the causes giving rise to excessive menstruation. That this should be the case is but natural; for not only is there, when subinvolution exists, an undue amount of blood present in the organ, but also the relaxed condition of the uterine tissue favours its exudation, and therefore, when the periodic determination of blood to the uterus takes place, as it occurs at each menstrual period, the moderate flow which should relieve that congestion becomes a profuse discharge, and often an exhausting drain. But the mischief resulting from subinvolution does not end here, for that abnormal state of the uterus predisposes to that unhealthy condition known as "granular ulceration" of the os and cervix uteri: a condition in which the mucous membrane of the canal of the cervix is hypertrophied, becomes exceedingly vascular, and is often everted to a considerable extent: a condition which increases the previously existing tendency to hæmorrhage. Thus, in not a few cases do we find the two causes present in the same patient. The following case affords a well-marked instance of this.

Mrs. F., aged 48, the mother of twelve children, presented herself among the extern patients of the Adelaide Hospital nearly a year ago. She stated that ever since the date of her last confinement, five years since, menstruation had gradually become more profuse, the flow continuing for a longer time than usual, the intervals between the periods being correspondingly shortened. During the intervals she suffered much from profuse leucorrhœa, and, as a result of this nearly incessant drain, became greatly debilitated. On examining the uterus, the sound passed to the depth of three inches and a half. The os uteri was patulous; there was extensive ulceration of the os uteri; and on separating the lips, the mucous membrane lining the cervical canal was seen to be thickened and highly vascular. This was a case requiring energetic treatment, which I did not dare to attempt so long as she continued to follow her ordinary occupations; and, for a time, she refused to come into Hospital. But, finally, her condition becoming much worse, she consented to do so. My first step after her admission was to introduce several lengths of sea-tangle bougies through the os internum, with the view of being able to explore the cavity of the uterus, and to make the necessary applications to the entire extent of the cervix uteri. This proceeding having enabled me to decide that there was not any polypus or fibrous tumour in the uterus, I cauterised the entire of the inner surface of the uterus freely with the strong nitric acid; this did not cause any pain. She was, however, as a precaution, kept in bed for three or four days. On examining her after the lapse of a week, the condition of the ulceration which existed round the lips of

the os was found to have improved considerably, and she was discharged in a short time perfectly cured.

In the foregoing case, subinvolution was manifestly the primary cause of the menorrhagia, the ulceration being altogether secondary. But in many cases, subinvolution exists alone, or, on the other hand, ulceration may exist alone, either condition being fully sufficient to give origin to severe menorrhagia. As an instance of the former, the following serves as an example. F. L., aged 24, married about a year, was a delicate young woman of lymphatic temperament. Menstruation had always been profuse, especially if she took walking exercise, or exerted herself during the flow. She became pregnant after the occurrence of the second menstrual period following her marriage, but, having imprudently taken a long and fatiguing walk, she aborted at about the eighth week; the two subsequent menstrual periods were so profuse as to reduce her to a state of extreme debility. Ergot, gallic acid, etc., failed to do good. On examining her after the termination of these periods, the uterus proved to be considerably elongated, the sound passing to the depth of three inches and a half; there did not exist any ulceration. The history of the case being altogether against the supposition of the existence of polypus, I came to the conclusion that the menorrhagia depended on subinvolution; in fact, that the uterus had never regained its normal size and tone since the miscarriage, which had occurred two months previously. I therefore decided on carrying out a plan of treatment, the value of which I have repeatedly tested: I mean the introduction up to the fundus of the uterus of ten grains of the solid nitrate of silver, and leaving it to dissolve there. This I accordingly did. The application produced considerable pain, which lasted five or six hours, but no further unpleasant results followed. I confined this patient to bed for several days, but then allowed her to go about. Menstruation appeared at the regular time, and was moderate in quantity; and she became pregnant immediately afterwards.

I wish to call attention specially to this case; first, as illustrating the occurrence of subinvolution as a result of abortion—a fact which is overlooked by many; next, as showing the dangerous menorrhagia which may depend on this condition of the uterus; and, thirdly, as proving the excellent results which follow the treatment adopted. Ergot, gallic acid, and, indeed, all other medicines will frequently fail to check menorrhagia depending on subinvolution; and we must have recourse to treatment directed to the uterus itself; we must stimulate the organ to set up that healthy action by which it regains its normal size after pregnancy has terminated—a process to which Sir J. Simpson has applied the term "involution." With this view, I unhesitatingly advocate the adoption of the treatment practised in the preceding case. I know no other so efficacious.

The mode of carrying it out is simple. The instrument known as Sir Jas. Simpson's "*uterine porte caustique*" is introduced into the uterus just as an ordinary uterine sound. This little instrument consists of a hollow silver tube, in size and shape closely resembling a sound; it contains a flexible stilette, which it fits accurately. As soon as its point is found to have reached the fundus of the uterus, the stilette is withdrawn, and through the instrument is pushed up, by means of the stilette, a piece of solid nitrate of silver reduced to the requisite size and weight, till it is fairly lodged in the cavity of the uterus. In doing this, there is but one caution requisite to be attended to; namely, that as soon as the piece of nitrate of silver has reached the extremity of the *porte caustique*, and before it is finally pushed out of the instrument—a point of which we can always be certain by observing how much of the stilette remains still unintroducted—the instrument should be withdrawn to the extent of about half an inch; for if this precaution be not observed, it is possible that the nitrate of silver might be forced into the substance of the uterine wall, instead of being left free in its cavity, an accident which, though possible, is very unlikely to occur. I have dwelt at some length on this plan of treatment, because I am satisfied that its value is far from being appreciated. It is looked upon by many practitioners as heroic and dangerous. I believe, and I have practised it for several years, that it is simple and safe. I do not say that it is always sufficient, and that a cure must always result; but in my hands it has been productive of marked success, and in no single instance have I known of its producing serious symptoms. The application of solid nitrate of silver to the interior of the uterus is by no means a novel practice. Dr. Evory Kennedy used to introduce it into the cavity of the body of the womb by means of an ordinary female catheter several years ago, but he did not leave it there to dissolve. To Sir J. Simpson we are indebted for the further development of the practice, and for the invention of the *porte caustique*. Dr. Kidd, I think, was the first of the Irish obstetricians who adopted his practice.

Menorrhagia resulting from ulceration of the os and cervix uteri is also of frequent occurrence. Mere abrasion of the lips of the os uteri is not sufficient to produce menorrhagia; but that unhealthy, spongy

condition of the os and cervix, in which the mucous membrane lining its canal becoming hypertrophied and thickened, and bleeds on the slightest touch, the os being patulous and the lips everted, is quite capable of originating severe menorrhagia.

Mrs. B., a young married woman, aged 24, who had never been pregnant, stated that she had become greatly debilitated by the excessive loss which occurred at each menstrual period. Ergot and astringents were exhibited by the mouth, and astringent lotions injected into the vagina, without producing the least effect. The use of the speculum proved the existence of extensive granular ulceration of the os and cervix uteri. Now, in severe cases such as the one I am referring to, the unhealthy condition of the mucous membrane extends at least as high as the os internum, and we will fail to effect a cure unless our treatment reach every portion of the diseased tissue; therefore, with the view of permitting the necessary applications to be made to the whole extent of the cervical canal, I commenced my treatment by introducing two tents of compressed sea-tangle; two pieces being sufficient for the object I had in view, which was not to open the uterus to such an extent as to enable me to examine its cavity, but only to permit me to treat the entire of the cervical canal. I left these pieces *in situ* for twenty-four hours, and on withdrawing them after the lapse of that time, cauterised freely the whole diseased surface with fuming nitric acid. This did not cause any pain. On examining the os uteri a few days subsequently, I found it in a much healthier state. *The menorrhagia was entirely checked and never returned*; and, although a considerable time elapsed before the uterus regained a healthy state, still the progress of the case was rapid and the cure perfect; the only treatment subsequently necessary being the occasional application of a twenty grain solution of nitrate of silver to the os uteri, and at a later period, of a small blister to the sacrum; finally, not the slightest trace of the ulceration remained, and menstruation became in all respects normal.

The foregoing case illustrates perfectly the mode of treatment which I as a rule adopt in cases of granular ulceration of the os and cervix uteri. Of course it is not always necessary to dilate the cervix uteri. If the case be recent, and we can satisfy ourselves that the unhealthy condition of the mucous membrane does not extend very high, the use of the solid nitrate of silver, of zinc points, or brushing the part over lightly with nitric acid, may be sufficient; but in the severer forms of the disease such treatment will merely be palliative, and the only effectual one will be found to consist in that which I now advocate. I believe that not a little of the opprobrium which rests on obstetric practitioners, from the length of time over which their treatment extends, is due to excessive timidity, and to the use of inefficient remedies. The case which I have just narrated was an example of that form of disease termed granular ulceration of the mucous membrane of the os and interior of the cervix uteri: but, though the term ulceration is applied to this condition, there is no true ulceration whatever; on the contrary, the mucous membrane is thickened and hypertrophied, its surface being covered with numerous papillæ, which, from the resemblance they present to ordinary healthy granulations, have given origin to the term "granular ulceration"; in point of fact, however, they are not new growths or granulations at all, but the ordinary papillæ which are numerous in this situation, and which have, under the influence of disease, become enlarged and vascular, and bleed on the slightest touch. This condition does not in general extend beyond the os internum; and the majority of writers, from their silence on the subject, allow it to be inferred that, in their opinion, it never does so. There is not, however, in my mind the slightest doubt that the same condition which we see in the canal of the cervix, also not unfrequently exists within the cavity of the uterus, and is the result of causes similar to those which originated it in the former situation: nor is there any reason why this should not be the case, since the mucous membrane lining the cavity of the uterus is directly continuous with that of the cervical canal. I have met with several instances of this affection. When this unhealthy granular condition of the mucous membrane of the cavity of the uterus exists, we frequently find that the mucous membrane lining the cervix participates in the disease. But this is far from being invariably the case; and then the diagnosis, always at first obscure, becomes more difficult; but the fact that the cervical canal is not implicated does not modify our treatment in any material degree. If we meet with a case of menorrhagia in an otherwise healthy woman, which a careful vaginal examination proves not to depend on granular ulceration of the os and cervix or on subinvolution, it is our manifest duty to dilate the cervix and os internum, with the view of determining what the condition of the interior of the body of the organ may be. As a rule, the uterus is seldom in these cases much elongated, the increase being not more than to the extent of perhaps half-an-inch. This point is of importance in enabling us to decide as to the possible presence of an intrauterine tumour; but the existence of these or of the condition

under consideration, can only be solved by dilating the cervix and then passing the finger fairly up to the fundus of the uterus. It is surprising how little the patient suffers from this process, and how rapidly the os regains its natural size. No less remarkable is the entire absence of all unpleasant symptoms after a proceeding apparently so severe; and I have not the least hesitation in recommending the practice.

The mode of dilating the cervix is now so well known, that I shall not dwell on it. I have quite given up the use of sponge-tents, and invariably adopt the plan, recommended by Dr. Kidd, of introducing a number of pieces of sea-tangle bougies. These are much superior for the purpose to the sea-tangle tents; for this reason, that they can be cut to any desired length, and that length should be the depth of the uterus, as previously ascertained by the use of the sound. The number of pieces introduced must vary considerably. If the cervix be rigid, three or four will be as many as can be safely inserted; but if it be relaxed, double, or even treble, that number may be with impunity inserted. If the smaller number be used, they should be withdrawn after the lapse of a few hours and a larger number inserted; but, in any case, the os internum must be dilated to a size sufficient to admit of the passage of the top of the index finger. To effect this by no means easy matter, the first step, after having withdrawn the sea-tangle, is to seize the anterior lip with a vulsellum, and with it to draw the uterus well down. This should be done by an assistant; pressure should also at the same time be made on the fundus: by these means the uterus will have been brought so low that, unless the pelvis be very deep, the point of the finger will reach the very fundus, and we are enabled to discover the presence of even a very small polypus, should it exist, or to detect that so-called "granular" condition of the mucous membrane, a condition which communicates a rough uneven feel to the finger. This condition of the mucous membrane I have several times met with. On the first occasion I was disappointed, and indeed surprised, at failing to detect a polypus, which, as I had announced to the class, I expected to find. Since then, enlarged experience has taught me that this granular condition of the lining membrane of the body of the uterus is a by no means infrequent cause of menorrhagia, and I now look on its detection as a possible result of the exploration of the cavity of the uterus. I believe it to be the result of congestion or of subacute inflammation of the membrane lining the uterine cavity, which has resulted in producing a thickened unhealthy vascular condition of that membrane. To cure this condition, it is essential to destroy the so-called granulation, and to endeavour to excite a healthy action in the diseased part. With this view I make use of the strong nitric acid, applying it with great freedom over the entire of the inner surface of the uterus by means of a bit of lint fastened securely to a piece of wood or inserted through a loop of iron wire. The os should be brought into view by means of the duck-bill speculum, which also serves to protect the posterior wall of the vagina. While the anterior wall is guarded by the vulsellum, with which the anterior lip should be still held firmly, the stick or wire, armed with the lint saturated with the acid, should then be passed rapidly through the cervix, and swept freely but quickly round the interior of the uterus. Another piece of lint, soaked in water, should be then passed up to the os to protect the vagina from the irritation which any acrid discharge from the os uteri might cause; and the lip being freed from the vulsellum, and the speculum withdrawn, the patient may be left, the only after-treatment necessary being that the vagina should be syringed out daily with tepid water, and absolute rest in bed enjoined for some days. With due attention to these precautions, no ill effects need be dreaded. Of several cases, I give the following as an example.

J. C., married, aged 28, was admitted into the Adelaide Hospital on the 26th November, 1870. She had never been pregnant. Menstruation was regular till within the last few months, when she observed the flow to become much more profuse than formerly, and also to last for a greater number of days; latterly the interval between each menstrual period had been but a fortnight. She had for a long time past suffered from severe pain in the back and over the left ovary. On making a vaginal examination, the cervix was felt to be soft and the os patulous. The sound penetrated to the depth of three inches. The existence of a small polypus being deemed possible, I proceeded to dilate the cervix, and for this purpose introduced five pieces of compressed sea-tangle. On removing these, after the lapse of twenty-four hours, the os internum being still too narrow to admit the finger, I introduced one of Barnes' smallest dilators, which was left *in situ* for a couple of hours. On removing it, the finger was passed and reached the fundus of the uterus; no polypus, however, was found to exist, but the inner surface of the uterus was felt to be rough and uneven. The entire of this surface was freely cauterised with the strong nitric acid; she did not suffer any pain, and was discharged in a fortnight's time perfectly well.

Such is a brief outline of the treatment which I adopt in cases of menorrhagia depending on the three causes I have mentioned, a line of treatment I have not ventured to advocate till I had first given it a full and protracted trial. My experience having now extended over a period of several years, a term sufficiently long to allow of my testing the results, I can now say that those results have been eminently satisfactory.

CAST OF THE URINARY BLADDER.

By J. R. WARDELL, M.D., F.R.C.P.,

Physician to the Tunbridge Wells Infirmary.

IN the rare case of the expulsion of a cast of the urinary bladder, given as a report of the Tunbridge Wells Infirmary in the JOURNAL of June 10th, it is said: "Dr. Wardell observed that he had referred to several works on pathology, but could find nothing like the case now narrated." It is evident, however, on further investigation, that a few similar instances have been recorded. Mr. Thomas Smith of St. Bartholomew's Hospital writes to me and says: "I have just read your most interesting case of cast of the female bladder. Should you care for references of similar cases, you will find them in the Pathological Society's *Transactions*, vol. xiii, page 150, and vol. xv, pages 137 to 140." Craigie says: "In the chronic form of cystitis, the mucous membrane may become thick, firm, and almost cartilaginous, with roughness and granular irregularity of its surface; and not unfrequently it is formed into pouches or cysts by the irregular contraction of the muscular coat" (*Prac. Physic*, vol. i, p. 932). Copland, under the head of Complications of Cystitis, thus writes: "Coagulable lymph is sometimes found covering or attached to the mucous coat. This tunic in the most acute cases may be detached from the muscular in parts or even throughout, forming a *greyish layer, resembling a false membrane*" (*Med. Dictionary*, vol. iv, p. 1191). Dr. Tanner thus refers to this subject: "A few curious cases have been recorded where the whole mucous lining of the bladder has been thrown off in one piece. In the museum of the Royal College of Surgeons there is a preparation (pathological specimens, No. 1993) which illustrates the correctness of this remark." This author then cites the history of the foregoing case. It occurred to a man 70 years of age in Edinburgh, who fell from a scaffold and had retention of urine and cystitis. At the end of the third week nothing passed through the catheter, and its point was felt to impinge upon a membrane. Mr. Liston cut into the bladder above the pubes, and the man lived three months after the operation and died from exhaustion. The layer of membrane, as it is found in the museum, is of saccular form, measuring six inches long and four in diameter. The shape indicates that it lined the whole interior of the bladder, and was thrown from it in one piece. The outer surface is flocculent, and in parts distinctly fibrous; the inner surface is granular and reticulated like superficially ulcerated mucous membranes. As the College catalogue states, it exactly resembles the mucous membrane of a bladder separated as a slough in one piece. (Tanner's *Pract. Med.*, 6th Edition, vol. ii, p. 226.)

This description of the specimen in the College of Surgeons' museum singularly applies to the specimen which I now have in my possession. This kind of primary croupous process may occur in all mucous membranes; and it is albuminoid and semi-pellucid, and interlaced with fibrous flakes. If not thrown off, it assumes a partially organised and continuous texture. There is much redness with injection of the subjacent vascular coats, which at length becomes paler and more normal. I believe that diverticula have their origin in the vesical parietes throwing off this albuminoid exudation. Rokitsky says that primary croupous exudation of the vesical mucous membrane is extremely rare. This inner coat of coagulable exudation is liable to become the seat of urinary sediments; and if this adventitious covering be not thrown off, there may be an incrustment deposited from the saline urinary products, as I remarked it to be the fact in the specimen which I exhibited at the East Sussex meeting.

PROFESSOR FLOWER'S HUNTERIAN LECTURES ON THE TEETH AND ALLIED ORGANS IN THE MAMMALIA.

Delivered at the Royal College of Surgeons of England.

LECTURE XVIII.—Wednesday, March 29th.

Marsupialia.—These form an extensive group, agreeing in certain important characters, and at the same time presenting so many differences among themselves that some naturalists divide them into orders corresponding with those of placental Mammals.

In the Didelphia, represented by the Didelphys or Opossum, the dental formula is $i \frac{5}{4}, c \frac{1}{1}, p \frac{3}{3}, m \frac{4}{4}$. The incisors are small. The canines are large, much resembling the carnivorous type (the animals are all either carnivorous or insectivorous). The præmolars have compressed crowns and sharp points. The molars have many roots, and are tuberculated. It is to be noted that the Marsupialia have generally four molars, in place of three as in placental Mammals. The upper molars have two large cusps on the outer side and two small ones in front, giving a faint indication of the **W**-pattern. The lower molars have five cusps. It was formerly supposed that the front teeth of the Opossum were preceded by milk-teeth; but closer investigation has shown that this is not the case. The last præmolar alone has a predecessor: this is just like a true molar; but, when the animal is about half grown, another can be found beneath it. The permanent tooth appears when the animal has nearly attained its full growth.

The Dasyuridæ, represented by the Dasyurus, are essentially carnivorous. The Thylacine is externally very like a Dog—an instance of an animal of different origin but with similar habits, and having its structure modified to suit those habits. The incisor teeth are small, the canines are large, the præmolars pointed and compressed, and the true molars presenting a form intermediate between sectorial teeth and ordinary molars. The formula is $i \frac{4}{3}, c \frac{1}{1}, p \frac{3}{3}, m \frac{4}{4}$. Three of the upper molars and the four in the lower jaw present a rude resemblance to sectorial teeth. On examining a young Thylacine taken from the pouch, before the teeth have come through the gums, the incisors are found to be of the same size as in the adult animal; and at the edge of the gum there is a small tooth of the size of a pin's head, with the root already absorbed, lying over the third præmolar. This tooth is shed very soon afterwards. All the permanent teeth come through nearly at the same period.

In the Perameles or Bandicoot, the incisors are small, being $\frac{5}{5}$ in number; the molars are formed on the insectivorous type. The posterior milk-præmolar remains until the animal is nearly full grown.

The preceding Marsupials are termed polyprotodonts from their numerous small incisors. All the other members of the order are vegetable-eaters, and are diprotodont, having never more than one incisor on each side in the lower jaw. In the upper jaw, there may be two or three on each side.

In the Phalangista or Phalanger, which has an outward resemblance to the Opossum, the last præmolar, as far as is known, is the only tooth that has a milk-predecessor. The molars are square, with four cusps and transverse ridges. The Koala has a similar arrangement of teeth.

In the Tarsipes, which lives in trees and sucks out honey with its tongue, there are two long projecting incisors in front; the rudimentary teeth vary in number, and resemble needle-like points.

The Kangaroos have three incisors in the upper jaw, and one long procumbent sharp incisor below. After these comes a space, occupied in early life only by a canine. There is a præmolar tooth; then four teeth nearly alike, having two crests and a large transverse ridge, with a deep groove between. The mode of succession of the teeth is peculiar. A præmolar and a molar both drop out, and are succeeded by one true molar. In the old animal, some of the anterior molars fall out.

The Kangaroo Rat (*Hypsiprymnus*) has three incisors and a canine in the upper jaw. The præmolar is elongated from before backwards, and compressed, and marked by ridges on the side. The molars have tubercles. A small milk-præmolar and a molar are both shed, and are replaced by a præmolar.

The Wombat or Phascolumys has two incisors above and below, with (alone among Marsupials) persistent roots, as in Rodents. There are five molars, above and below, with pointed roots, and curved as in Rodents. They each present two columns, with a deep groove between; the anterior molar is single, and may be called a præmolar.

There are many extinct Mammalia in the oolitic formations. Many have been found in the upper oolite at Purbeck. One of them, named by Falconer *Plagiaulax*, had one incisor on each side in the lower jaw, together with some teeth which were apparently præmolars, and some true molars. Owen regards it as carnivorous; but as yet we only know its lower jaw.

The teeth of the Thylacoleo may be taken as a test of the value of teeth in determining the characters and affinities of animals. The complete dentition of this animal is known; it was very peculiar, and unlike that of any existing animals. Nothing is known for certain of any other of the bones of the animal. It has been the subject of much controversy, and of several papers by Owen. A fragment of the skull and two teeth were described by Owen in 1859; from this part, and a small portion of the lower jaw, he described it as having been of very

destructive habits, and gave it the name of *Thylacoleo carnifex*. In 1866, he published a second paper, giving a fuller description, and modifying his conclusion as to the affinities of the animal. It was found to be diprotodont; and its teeth were regarded as forming "the simplest and most effective dental machinery for predatory life known in the Mammalian class."

What are the rules which should guide us in such a case? We see enough already in animals of similar organisation but different habits to make us very cautious in forming an opinion as to the nature of the food of an animal. Still, however, there are so many cases of association of structure with habit and diet, that we should probably not hesitate to arrive at a conclusion if the teeth of the *Thylacoleo* were like those of any existing animal—for example, the Lion or the Horse. We must also follow two lines of investigation separately. First, the affinity must be traced out; secondly, we must find for what food the animal's teeth were best adapted. As to affinity, there is no doubt that the *Thylacoleo* was a Marsupial; but to what group did it belong? The upper jaw had in the centre two large curved incisors, a little separated above, and meeting below. Then came one or two small incisors, a small canine, two or three small teeth, then a tooth greatly elongated from before backwards and worn down to a flat surface in the old animal, and lastly a small molar. In the lower jaw were two large incisors with a sharp posterior edge, a large tooth like that in the upper jaw, and two small tubercular molars.

In the *Hypsiprymnus* or Kangaroo Rat, the tooth behind the canine is large and ridged; and behind it are four smaller molars. If this structure be carried to a greater extent by the development of the large tooth and the suppression of those lying behind it, we get the arrangement found in *Thylacoleo*, one which is quite different from that found in *Thylacines*, *Dasyures*, or *Opossums*. The *Thylacoleo*, then, lies somewhere among the Diprotodont Marsupials. The skull in some respects resembles that of the Koala, in others that of the Phalanger. Any other inferences as to structure must be empirical. We know the agreement between the Kangaroo and Phalanger as to the feet; and the *Thylacoleo* might be supposed to have a similar structure; but this is simply an empirical correlation.

As to the habits and food of the animal, we can do no more than speculate. The animals to which it is most allied are all more or less vegetable-feeders—most of them altogether so; a few are omnivorous, and occasionally kill small birds. *A priori*, an animal of this group would be phytophagous. Does the modification in the structure of the teeth point to carnivorous habits? In such animals as Lions and Tigers, we have something to guide us, in the small incisors, the large canines, and scissor-shaped molars; and in some Marsupials, as in the *Thylacine*, we find the teeth modified for carnivorous habits. The molars are reduced in the *Thylacoleo*; but is that to be taken as a proof of carnivorous habits, on the ground of their being too few and too small for a vegetable-feeder? In several other Marsupials, as the *Proteles* and the *Tarsipes*, the molars are rudimentary; but these are not more carnivorous than others. Again, the great tooth of the *Thylacoleo* is said to resemble the sectorial molar; the resemblance, however, is far-fetched. It is also urged that some *Insectivora* have large central incisors and small canines; but all these are small animals, and employ different modes of capturing their prey from the true *Carnivora*. Again, no *Insectivora* have molars like those of *Thylacoleo*. Some *Rodents* are carnivorous; but we cannot derive conclusions from exceptional types.

We cannot allege that the *Thylacoleo* was herbivorous; but there is not sufficient evidence that it was carnivorous. It may have fed on some substance which has passed away; and perhaps the animal became extinct with the disappearance of its food.

BEEF EXTRACT IN COMBINATION.—Dr. Edward Parrish (*American Journal of Pharmacology*), observing how some patients acquire a disgust for essence of beef and beef-tea, given constantly under medical advice, suggests the use of Liebig's extract in extemporaneous mixtures with iron, quinine, the phosphates, and other tonics, dissolved either in very dilute alcoholic or in saccharine menstrua. Some judgment is required in the selection. As a rule, sweet syrups are best adapted to children; great care is required not to cloy the stomach of an adult with sweets. Fluid extract of liquorice is one of the best excipients for disguising the meat flavour; that made from the root by the use of diluted alcohol gives a strong liquorice flavour and taste without much body. Diluted phosphoric acid, or the compound syrup of phosphates, is a good addition. Strong alcoholic liquids would be incompatible with it, but wines mix well, increasing fluidity and producing but slight precipitation. Wine of iron or bitter wine of iron may be advantageously added in the proportion of one part of the wine to three of the extractum carnis fluidum.

THE Subscriptions to the Association for the year 1871 became due in advance on January 1st. All which are not already paid, should be forwarded to the General Secretary, Mr. T. Watkin Williams, 13, New Hall Street, Birmingham; or to the Secretaries of Branches.

BRITISH MEDICAL JOURNAL.

SATURDAY, JUNE 24TH, 1871.

PROFESSOR TYNDALL ON THEORIES OF DISEASES.

THE surest basis for Medicine is upon the broad foundations of exact scientific observation; and we shall all welcome such contributions as so able a physicist as Professor Tyndall can make either to our knowledge or to our facilities for testing the foundations of our beliefs. The electric beam, which has in his hands played a large part in many able investigations and demonstrative experiments, was lately brought into play to demonstrate the ubiquity of dust in the atmosphere. To some very charming experiments Mr. Tyndall joined some theories which, if capable of proof, were yet not demonstrated by anything which he said or did. The ubiquity of these air-borne particles was perfectly well known, and their illumination by the electric beam, while it has given a more complete demonstration of their presence than was otherwise obtainable, has not added anything to our knowledge of their chemical or biological relations. His experiments, however, have had the valuable effect of demonstrating the uses of cotton-wool as a filter for them, and the advantage of inspiring him with interest in a subject in which we can but be pleased that one of the most brilliant of investigators and expositors of physical science should be interested—the investigation of the origin of zymotic disease.

In many respects the address, of which we present a part to-day to our readers, shows a considerable advance over previous discourses by the same lecturer on this subject. The fact that the dirt or dust is in large part inorganic, and in large part "dead", is now put prominently forward. Professor Tyndall has, in fact, profited greatly by the lessons of Dr. Gull—we shall not venture to assume that it is by anything which we have had to say by way of comment upon his previous addresses—and does not now assume to tell us anything more about the nature of this dirt than we knew before. He proceeds only to reason upon the subject, deriving his information, however, chiefly from chance communications from various physiologists and medical correspondents. One correspondent tells him that "blood free from dirt" will take longer to putrefy out of the body, and Von Recklinghausen's experiments are brought in reinforcement of the still more striking results and experiments of Professor Lister; another informs him that vaccination through a bleb raised by blistering is less likely to produce secondary abscesses than by the ordinary method; and Dr. Budd assures Professor Tyndall that, "from the day when he first began to think of these subjects, he has never had a doubt that the specific cause of contagious fevers must be living organisms." The last is, of course, a very interesting proof of early wisdom, but is not of the nature of a strict demonstration. The circumstance mentioned by Mr. Ellis reminds us that we have, on the other hand, seen it stated in print by one gentleman that he had to abandon vaccination by blistering because it was, in his practice, more productive than any other of suppurative and inflammatory accidents. But all this is really beside the question. The whole course of subcutaneous surgery, the whole range of Professor Lister's experience, the daily experience of the difference in progress between simple and compound fractures, a thousand facts and observations, and the accepted and proved theories of surgical practice, have long convinced every surgeon that, in proportion as air and that which air bears are excluded from the fluids of open wounds, and from the organic fluids of the body, suppurative and putrefactive processes will be lessened and warded off. So much Mr. Tyndall might, so far as our profession is concerned, have taken for granted;

and if he choose to read, for instance, such papers as those we have published of Adams on subcutaneous osteotomy, he will see how largely this knowledge affects our practice in other directions than those to which he has referred. But, after proving to us what we know, Professor Tyndall takes a leap, and assumes precisely those conclusions which we are desirous of his aid in testing. All these facts are as much accordant with the doctrines of Liebig and the experiments of Bastian, as with the doctrines of Schwann and the experiments of Pasteur. Granted that air-borne particles are prime agents in initiating putrefactive and fermentative change, is this by a development of pre-existent living germs, a growth of deposited ova, or by a communicated molecular motion of dead organic matter in a state of change? Is it from germs, or from fermentative organic particles? We wish we could see that Professor Tyndall had advanced our knowledge at all concerning this, the central knot of the tangle. It does not help us when he quotes certain known examples of parasitic disease, such as arises from *pébrine*. Because the itch is the result of the activity of the *acarus*, it does not follow of course that all skin-diseases are parasitic. Mr. Tyndall declares, indeed, that the successful workers and profound thinkers of the medical profession are daily growing more convinced that "contagious disease generally is of the same parasitic character" as the silkworm-disease. We cannot find on what he bases that very broad statement. Where are the works of the "most successful workers and profound thinkers" which support that statement? It will be very kind of the lecturer to inform us whom he thus dignifies, and to what growing series of authorities he refers. Certainly not to the researches on cholera of Gull, Baly, or Cunningham and Lewes: these negative the parasitic theory. Salisbury started a parasitic theory for measles; but his observations have been generally discredited, if they were ever accepted. Hiallier's observations have certainly not gained in authority by the results of many recent investigations, such as those of Burdon Sanderson. We are not aware of a parasitic theory of scarlet fever being held by any one. The theory concerning typhoid fever, which Dr. Budd holds strongly and defends ably on purely logical grounds, is as distinctly controverted by Dr. Murchison.

Professor Tyndall, however, lays just stress upon one important aspect of the question, which is precisely that which has long fascinated medical observers, and which is of the deepest importance. To it also, however, he adds nothing; and from it he draws, with admirable and unquestioning boldness, precisely the conclusions as to which we have all been debating whether they be the true and only conclusions. Small-pox and scarlatina are, to use the graphic words of Miss Nightingale, in ordinary medical experience, "dog and eat", so that one cannot change into the other, any more than Tabby can give birth to Fido. When she says that she has seen with her own eyes one or other spring up in the corner of a room from neglected dirt, Miss Nightingale uses, of course, a purely figurative language, and her evidence must be taken *quantum valet*. But when Mr. Tyndall declares, on the other hand, that zymotic diseases are all of primal inheritance—long descended primeval germs, never changing, never dying out, and ever passing on by lineal descent—he treads also upon ground less secure than he supposes. That this is the ordinary observed mode of extension of contagious diseases, no one will dispute. That they have no other, many will dispute. When he declares that, for the similarity or identity of effect of like particles acting on like fluids, we have no physical parallel, he obviously leaves out of view the whole series of phenomena of crystallisation from saturated fluids.

To sum up: The tendency of modern research is certainly not so favourable as Mr. Tyndall believes and expects it to be to the theory of the parasitic origin of contagious disease. We should rather declare it to be unfavourable to that theory. The theory of the permanency and unrelated individuality of zymotic types of disease is not, as he assumes, an undisputed or unquestioned theory. We have to set against it, first, the theory of the correlation of zymotic diseases, which is growing into importance, and likely to attract more attention now than heretofore; second, the observations of statisticians of the comple-

mentary character of epidemics of zymotic diseases, and their apparent interchangeability in periods of decline; the theories of the spontaneous origin of zymotic disease by no contemptible observers, and in diseases as distinctly communicable as typhoid; and the observations, experiments, and reasonings of Pouchet and of Bastian, which have not yet been met, and which cannot be disposed of by a few words of philosophic doubt. We appreciate very highly the value of Professor Tyndall's assistance in solving these questions. We entirely concur in his opinion that, as a physicist, he has a great power of usefulness in this field of investigation; and, if we refer him to the work of Gull, Baly, Cunningham and Lewes, Farr and Murchison, it is because we are desirous that he should not be content to win easy triumphs with audiences uninstructed in the questions he discusses, or with the partisans of the theory he has adopted, but that he should enter into the heart of the question and face its real difficulties. It would be infinitely satisfactory if we could all arrive at as simple a sole theory of disease as that which Professor Tyndall accepts entire, symmetrical, and rotund, from the supporters of the germ-theory; but we fear the solution is not yet in hand. It is satisfactory to have enlisted his sympathies, and we shall all be glad of his solid and sincere assistance.

THE VACCINATION ACT AMENDMENT BILL.

THIS Bill, introduced by the Government, proposes that the certificates of insusceptibility of, and of unfitness for, vaccination, and of successful vaccination, shall be sent to the vaccination-officer. The certificate of successful vaccination must be transmitted within a week of the ascertained success of the operation. This, in fact, makes the transmission necessary within fourteen days after the performance of the operation. There is a penalty for neglecting to comply with this requirement.

Clause 11 makes it penal for any person to prevent the public vaccinator from taking lymph from the arm of a child whom he has vaccinated. We urged this provision upon the Government when the Act of 1867 was passing through Parliament.

Clause 13 enables any public vaccinator to examine and certify success in a child not vaccinated by him.

Clause 14 directs that a medical officer, when attending a small-pox patient under certain circumstances, may vaccinate and revaccinate the other inmates of the house. Provision is made for payment for the duties referred to in this clause. This we may take to be the result of the representations of the Joint Committee of the British Medical and Poor-law Medical Associations. But for payment for the duty to be imposed by the former of these two clauses, no provision appears to be made; and, as Section 22 of the Act of 1867 directs that no charge shall be made by a public vaccinator to a parent for certificates or duplicates given under that Act, and as the present Bill, if it become law, is to be taken to be a part of that Act, it seems to us doubtful at least whether public vaccinators will be paid anything for this duty.

Taking Clauses 13 and 14 together, it seems to us that there may be a double registration of the vaccination of a child; and not only may it be registered twice, but an almost indefinite number of times, and in each of the many districts of England. What, if such be the case, will be the value of vaccination-returns?

Section 15 enables the Poor-law Board to annul any contracts, whether made before or after the operation of the Act of 1867; whereas under that Act the Poor-law Board could only annul such contracts as had been entered into under the Act.

As regards those sections which are of general application, the fifth makes it compulsory upon Boards of Guardians to appoint vaccination-officers such as are referred to in Section 28 of the Act of 1867; and the sixth transfers to such officers all the duties of registrars of births, except such as refer to the delivery of the notices of the requirement of vaccination.

The registrar is to send to the vaccination-officer a monthly list of births and deaths (Clause 8); and the sending to the guardians of half-yearly lists of defaulters (Section 27 of Act) will be discontinued.

Clause 9 enacts that when a public vaccinator has performed revaccination, the person revaccinated shall attend as in a case of primary vaccination, in order that the result of the operation may be ascertained; and in case of neglect, the guardians are to be empowered to recover as a debt a fee of 2s. 6d. Under the law as it stands, a negligent or recusant parent may be proceeded against over and over again until the child to whom the proceedings refer is fourteen years old; but Clause 10 of the new Bill provides that not more than two penalties shall be enforced, nor more than one penalty if it amount to twenty shillings.

Clause 12 provides for a blot in the Act of 1867, which enabled obstinate and misguided persons to prevent the law from being put into operation by removing their children from the union in which the proceedings were taken, for there was no power of compelling the person to produce the child, and in the absence of the child a successful prosecution could not be ensured.

We could have wished that the division of authority between the Poor-law Board and the Privy Council had been done away with, for that, we are assured, is one great hindrance to the thoroughly efficient working of the vaccination-laws. We also cannot help saying that there appear to us to be evidences of haste and some want of exactness in drafting the Bill, which, if not amended before it becomes law, are likely to be fruitful sources of diverse opinions. We shall be glad to receive the opinion of members of the Association on the several portions of this Bill.

THE BRITISH MEDICAL ASSOCIATION AND THE FRIENDLY SOCIETIES.

WE regarded the appointment of the Friendly Societies Committee of the Birmingham and Midland Counties Branch of the British Medical Association in 1868, as one of the most promising and useful developments of that principle of unified action which underlies the structure and is the greatest element in the usefulness of the Association. We have heard occasional hints of the alleged failures of the movement here and there, and were therefore the more desirous, when we received from Mr. Manley the account of his rough experience at West Bromwich, to gauge the general results throughout the country. It will be seen that letters which we have received in response to the request for such information, and which we publish to-day, describe a much more satisfactory result of that movement than might have been inferred from Mr. Manley's statement. It will be satisfactory if these letters elicit yet others from all parts of the kingdom, so as to enable us to judge with something like precision of the total effect of this movement and of the improvement which it has made. It is of almost equal importance to learn where and to what extent it has failed, and where and to what extent it has succeeded; and in both cases to ascertain what are the apparent causes of local success or failure. Some sneers have been pointed at this movement, as one of trades-unionism. Strangely enough, they have proceeded generally from eminent members of the profession, who hold very strongly to the opinion that there should be an universal agreement that no physician should accept less than a guinea fee, even though he be compelled by regard to the circumstances of the case to reduce, by a systematic oblivion, the number of visits far below the actual number, and so practically receive less than his nominal fee. Those who argued in this way seemed to us not only to be guilty of this special inconsistency, but to ignore the difference between the professional propriety of resisting a downward competition for fees in respect to services having always an arbitrary value, and the attempt to impose an arbitrary value on products whose value is acknowledged to be best settled by the "higgling of the market". It is to avert the introduction of the "higgling of the market" as a standard for medical services, that the Friendly Societies Committee of the Association was established. We feel satisfied that this was an excellent and highly professional development of the functions of association. The sort of review of the progress of the movement

which we are now endeavouring to make will, we hope, prove practically useful; and we should be glad to find it yield lessons which will be of service in still further extending the influence of a movement which has already spread beyond the Association, and has proved itself capable of elevating the status, as well as increasing the remuneration, of a numerous class of medical men.

VALEDICTORY.

IN closing this half-yearly volume, we close also the publication of a series of lectures which are among the most remarkable which it has ever been the good fortune of any journal to present for the gratification of intelligent readers, and to preserve for the permanent benefit of science. The phonographic record of Professor Houghton's three lectures on the Principle of least Action in Nature, illustrated by Animal Mechanics, is a remarkable literary photograph of a series of lectures presenting a perhaps unrivalled combination of spontaneous eloquence, subtle originality of thought and diction, and severe geometric reasoning, applied to the solution of novel and unattacked problems in anatomy and animal physiology. It would be a poor compliment to these singularly vivid and perspicuous demonstrations of the lecturer, if we were to attempt to recapitulate his arguments or to point his conclusions. They add solid stones to the edifice of human knowledge, and promise to found a new era in a science now little studied and as yet poorly developed—that of animal mechanics. To many readers, the incidental arguments and inferences will rival in importance the main developments of the discourses. None will have failed to notice the emphatic declaration that here can be observed no tentative process, no gradual perfection in flesh and blood, no failures which die out and leave space for creative successes, but geometrical completeness and perfection in every model. The adversaries of teleology will, of course, reply that to such apparent waste of structure as in the male mamma and the seal's paw these observations afford no key; but every one will feel that, whatever may be the actual worth of the teleological argument, Professor Houghton has incidentally made a most brilliant contribution to it in this admirable series of lectures.

We can hardly close the volume without expressing gratification at the remarkable scientific value of the lectures, addresses, and papers which it contains. We only echo the written words of many correspondents, and express a patent fact, in saying that perhaps no other volume of this or any other journal ever contained so great a mass of valuable scientific matter as circumstances have enabled us to include in this volume. We can hardly hope to find ready to our hand material equally rich for that which is about to follow; but for that also the prospects are of the brightest. It is of good omen that it will open with the Harveian Oration on the Progress of Therapeutics by our esteemed associate Dr. T. K. Chambers, which excited the admiration of all who heard it on Wednesday last.

THE Society of Physicians of St. Petersburg has elected Dr. Barnes its Honorary Member. Hitherto the Society has not associated to itself foreign or honorary members.

DR. GEORGE M. LOWE of Lincoln has been appointed public Analyst for the parts of Lindsey in Lincolnshire, under the provisions of the Act for preventing the Adulteration of Food and Drink.

MANY medical officers have, it is stated, been arrested among the Federals of Paris. The *Gazette Medicale* points out that most of them were fulfilling the sacred duty of their art, which knows no political distinctions, and justly claims their release.

THE "Baly Medal" of the Royal College of Physicians, London, has been awarded to Dr. Lionel Beale, and was presented to him immediately after the termination of the Harveian Oration, on Wednesday last.

THE proposition has been made by M. Henoque, and finds many supporters, to transform the new hospital building of the Hôtel Dieu into the Hôtel de Ville of Paris. This proposition finds much support amongst physicians, who believe it is better fitted for any other purpose than that for which it has been built.

HEALTH OF PARIS.

THERE were only four deaths in Paris from small-pox during the week ending the 9th June, against 257 in London; only 4 cases of scarlatina, against 28 with us; and 9 cases of measles, against our 23. The chief mortality was from bronchitis and pneumonia. The city is free from epidemics. The total mortality of the week was 1,159.

THE MIDDLESEX HOSPITAL.

THE translation of Dr. Murchison and Mr. Henry Arnott to St. Thomas's Hospital, renders vacant the offices of Physician and Assistant-Surgeon. The former will be filled up by the appointment as physician of Dr. Greenhow, now acting as extra physician. The post of assistant-surgeon will be filled up most probably by Mr. Henry Morris, who has for a considerable time held the offices of surgical registrar and pathologist. A second vacancy as assistant-surgeon will, however, shortly occur in consequence of the expected promotion of Mr. George Lawson as extra surgeon.

THE STRASBOURG SURGEONS ON EXPLOSIVE BULLETS.

SUPPORTED by the ablest authority, we gave during the war the explanation of the counter-allegations of the use of explosive bullets, which the experience of British military surgeons warranted—that the alleged explosion and dispersion of the fragments of hollow balls in certain wounds dressed in the ambulances was due to the shattering of the ball against edges of bone. That explanation has been widely reproduced; and we are very pleased to see that M. Herrgott of Strasbourg, after deliberate investigation of the cases under his care, which gave rise to accusation of the kind, has arrived at the same conclusion. As M. Herrgott truly says, accusations so injurious should now be withdrawn on both sides. He adds, that if all the accusations launched—sometimes so carelessly—could be submitted to an equally calm, serious, and loyal examination, they would cease to excite hatred and rancour. In other words, the charges have proved explosible, and not the bullets: this is as it should be in war.

DEATHS FROM CHLOROFORM.

THE letter of Professor Lister, which we publish this week, is as noteworthy for what it leaves unsaid as for what it says. In a very few words, it insists on the one cause of death which he believes to be at the root of our mortality from chloroform—laryngeal paralysis of the respiration, and on the remedy for it—firm traction of the tongue beyond the range of the teeth, and indeed to its utmost extent of protrusion. What is, however, deeply important, is the silence of the letter on the subject of the past deaths to which we have referred. This matter is one intimately involving the security of lives intrusted to surgical skill, and lost by the administration of an agent used to secure immunity from pain to the patients under their hands. Every one of course feels deeply how much professional responsibility is involved in the estimate of the precise ratio of danger, and in the research of the safest agents and the best means of averting the dangers incidental to the use of those which we have to employ. Let it be noted, then, that in the great Infirmary where chloroform was first used, and where its use was until lately believed, and was generally stated, to have been free from accident, it has become now known—as it were accidentally through our columns—that there have really occurred five deaths; and that in this country where most, but certainly not all, chloroform deaths are recorded, there have been registered seventy deaths in eleven years (see BRITISH MEDICAL JOURNAL, July 2nd, 1870). But, further than this, administrators of chloroform will bear in mind that, according to the deliberate opinion of Professor Lister, deaths from chloroform are preventable accidents—in his clear and unmistakable words, the result

of carelessness and the omission of the simple precaution of forcible traction of the tongue, and that no such accidents should occur. Nor has any administrator of chloroform come forward in our columns to contravene the conclusion which is the result of Professor Lister's researches.

THE ORDER OF THE BATH.

THE Queen has been graciously pleased to give orders for the appointment of Alexander Armstrong, M.D., Director-General of the Medical Department of the Navy, to be K.C.B.; of Inspector-General of Hospitals and Fleets, Charles Abercromby Anderson, M.D., and Deputy-Inspectors Richard Denton Mason and David Lloyd Morgan, to be C.B. of the Military Division; and Deputy Inspector-General of Hospitals, William Campbell Maclean, M.D., Professor of Military Medicine in the Army School at Netley, to be C.B. of the Civil Division of the order.

SANITARY IMPROVEMENTS IN MANCHESTER.

A MANCHESTER correspondent writes:—The Corporation has recently resolved to institute a large public disinfecting oven in some central part of our city, for the purpose of disinfecting the clothing and bedding of fever and small-pox cases. This plan has aroused the liveliest opposition among many of the inhabitants, who object to loads of poisoned and poisonous stuff being constantly carted past their doors. An indignation meeting is called for next Wednesday, to resist the oven and all its works; and as the chair is to be taken by a popular and influential citizen, it is not unlikely that they will succeed in diverting the undesirable boon from their midst. It is, indeed, likely to prove a white elephant to the inhabitants of that neighbourhood which has the sanitary distinction of receiving it. Whatever doubts may be felt as to the wisdom of the corporation for this Act, none can be entertained in their having, at the same time, decided to do away with all private slaughter-houses, and immediately to set about the erection of public *abattoirs*.

DR. SIBSON AND MR. LANE: ST. MARY'S HOSPITAL.

IT has been determined by a Committee of the past students of this Hospital to present testimonials to Dr. Sibson and Mr. Lane, who are now retiring from office after twenty years' service. It is felt that few of their old pupils, either of St. Mary's, or of Lane's School adjoining St. George's Hospital, will not be glad to join in this expression of affection and respect for their old teachers, from whom "they have all received so much valuable instruction, and so many acts of kindness." For this purpose, it has been resolved to invite each of their former pupils for a subscription limited to one guinea. Mr. Sydenham J. Knott and Mr. Alfred T. Wall act as Honorary Secretaries. We believe that the present and former colleagues of Dr. Sibson and Mr. Lane propose to invite them to a parting banquet.

THE CLUB MOVEMENT.

REFERRING to the recent correspondence in the JOURNAL, Dr. L. O. Fox of Broughton writes:

The present case reveals a state of things which I hoped belonged exclusively to my own county, viz., Hampshire; and that is, that medical men in lucrative practice in Staffordshire take clubs at three shillings per member. If this be the value at which we ourselves estimate our services, how can we expect the public to respect us? We complain that we are not recognised by the state as we ought to be; that we are snubbed by the Privy Council; that the Poor-law Board looks down upon us as a lot of hucksters; and yet, when an opportunity occurs of asserting our rights and of improving our position, we act like a set of cowards, and do not hesitate to cut our brother's throat for the sake of a few paltry pounds per annum. The remark which is constantly thrown in the teeth of those who contend for a better state of things is undoubtedly true; viz., that if we had only common honesty and were true to ourselves, we should soon overcome all difficulty in obtaining what is just and due to us as members of a liberal profession. It is refreshing to find from Dr. Turton, that at Wolverhampton satisfactory results of the recent agitation have shown themselves.

ST. BARTHOLOMEW'S HOSPITAL: MR. PAGET'S RESIGNATION.

THE opportunity offered by Mr. Paget's retirement from the position of Surgeon to St. Bartholomew's Hospital has not been allowed to pass, without steps being taken to mark the appreciation of the manner in which his genius and energy have been exerted to promote the prosperity of the Hospital and Medical School during his long and intimate association with them. In our advertisement columns will be found an appeal to Mr. Paget's friends and pupils to join the Committee now being formed to carry out the intention. It has been decided, wisely, we think, to limit the subscriptions.

THE CONTAGIOUS DISEASES ACTS.

IT is announced that the Royal Commission have decided, by a majority of two to one, to recommend the repeal of the Acts. Mr. Fowler has, therefore, postponed his intended Bill for the purpose, awaiting the publication of the Report and the action of the Government.

EPIDEMIOLOGICAL SOCIETY.

AT the annual meeting of this society, held on the 14th instant, the following gentlemen were elected office-bearers for the Session 1871-2. *President:* Robert Lawson, Esq., Inspector General Royal Army. *Honorary Vice-Presidents:* The Earl of Shaftesbury, K.G.; Lord Lytton; The Rt. Hon. W. Cowper-Temple, M.P.; Edwin Chadwick, Esq., C.B. *Vice-Presidents:* Alexander Armstrong, M.D.; Henry W. Acland, M.D., D.C.L., F.R.S.; William Farr, M.D., D.C.L., F.R.S.; Sir W. Jenner, Bart., M.D., D.C.L., F.R.S.; Sir Thomas G. Logan, M.D., K.C.B.; Sir J. Randal Martin, C.B., F.R.S.; Gavin Milroy, M.D.; John Simon, Esq., D.C.L., F.R.S.; Sir Thomas Watson, Bart., M.D., F.R.S.; Benj. W. Richardson, M.D., F.R.S.; Edward C. Seaton, M.D. *Treasurer:* George Buchanan, M.D. *General Secretary:* W. H. Corfield, M.B. *Secretary for Navy:* A. E. Mackay, M.D., Deputy Inspector-General R.N. *Secretary for Army:* T. Crawford, M.D., Deputy Inspector-General. *Foreign and Colonial Secretaries:* Waller Lewis, M.B.; Hermann Weber, M.D.; W. Daniel Moore, M.D.; J. J. L. Donnet, M.D., R.N.; John Jackson, M.D.; John Macpherson, M.D.; W. Dickson, M.D., R.N.; W. R. E. Smart, M.D., C.B., Inspector-General R.N. *Other Members of Council:* F. J. Burge, Esq.; E. Haward, M.D.; H. Ietheby, M.B.; J. F. Marson, Esq.; H. H. Massy, M.B., C.B., Deputy Inspector General, Royal Army; J. N. Radcliffe, Esq.; J. Burdon Sanderson, M.D., F.R.S.

THE BOMBARDMENT OF STRASBOURG AND PARIS.

THE following is a digest of official figures showing the number of victims of the bombardment in Strasbourg. In the civil population, from the 13th August to 20th December, 168 men and 63 women were killed or died of their wounds; 49 persons died subsequently of their wounds up to 31st December, in all 280. The mortality amongst the wounded was at the rate of 31.8 per cent. The total number of civilians wounded, therefore, appears to have been about 900. The first two deaths were on the 13th August. The worst days were the 25th September (14 deaths), the 9th (13), the 25th and 27th August (12). At the commencement of the bombardment a projectile fell into the orphanage of the Rue Arc-en-Ciel, and struck 8 young girls—4 were killed, 4 others underwent amputations, and have recovered. In the garrison, the losses were as follows: 117 deaths from firearms; 436 from shells. The first deaths among the soldiers occurred on the 24th August—eleven days after the death of the first civilian. The general mortality of the city during August and September of 1869 was 363; in the same months of 1870 it was 1,132. With these figures may be compared the official statistics relating to the Prussian siege of Paris. The capital was bombarded for twenty-two days—from the 5th to the 27th January, 1871: 31 children, 23 women, and 53 men—in all 107 persons—were killed amongst the civil population. There were besides 276 wounded, of whom 36 were children, 92 women, and 148 men, which brings the

total of civilians killed and wounded to 383. The worst night was that of the 15th, when the number of victims exceeded 30. The general mortality, which averages 900 to 1000 each week, rose towards the end of the siege to 4,500 to 5,000. In 1869-1870, there died in Paris, from the 18th September to the 24th February, 21,978 persons: in the same period, 1870-71, the mortality rose to 64,154.

THE AMALGAMATED EXAMINATION SCHEME.

A FURTHER meeting of the Conjoint Committee has been held; and at this meeting, the representatives of the Apothecaries' Society submitted a statement showing that the legal effect of the Act of Parliament under which they acted was to prevent them from requiring any amount of surgical knowledge as a condition precedent to granting their diploma. This is, of course, a state of things in which they are much to be commiserated. The evils of allowing names to be placed on the *Register* for practice in virtue of an avowedly imperfect qualification are universally acknowledged. We have already sufficiently directed attention to the extent to which this evil operated prejudicially, by a general analysis of the *Register* during the years 1868-69, of which the publication was followed by the passing of the conferences of the Corporations with a view to prevent this scandal, and by the passing of the Government Bill with the same object. The declaration of helplessness to carry out what is universally admitted to be necessary, puts the Apothecaries' Society in a very painful position. They are already to be pitied, inasmuch as they have no power to withdraw their diplomas from unworthy licentiates; and the *Register* is still disgraced by names which but for the Apothecaries' Society would have been stricken off. They now virtually declare that their diploma is one which ought not to be registrable at all. The scheme for conjoint examinations will, we presume, go on without them. But the plea for legislation will now be irresistibly strong.

SCOTLAND.

THE sum of £400 has been subscribed for the purpose of erecting a monument to the five medical men who lost their lives during the epidemic of fever in Greenock.

STATE AID TO SCIENCE IN SCOTLAND.

A MEMORIAL has been addressed by the Council of the Royal Society of Edinburgh to the Royal Commissioners appointed to make inquiry regarding scientific instruction and the advancement of science, in which they suggest that a special grant should be appropriated for Scotland from the imperial purse, and that it should be administered in Scotland. The special claims for aid are claimed for the Royal Society of Edinburgh and the Scottish Meteorological Society; but the memorial expresses a hope that an opportunity will be given to all societies in Scotland of stating what they are severally doing in carrying out the objects for which they were established.

IRELAND.

SIR DOMINIC CORRIGAN, Bart., M.P., has just been elected Vice-Chancellor of Queen's University, Ireland, in succession to Sir Maziere Brady.

UNIVERSITY OF DUBLIN: SCHOOL OF PHYSIC IN IRELAND.

THE Senior Medical Exhibitions, given annually by the Professors of the School of Physic, have this year been awarded to Messrs. Jacob O'Connor and Patrick Molony respectively.

ROYAL GENERAL DISPENSARY, BARTHOLOMEW CLOSE.—At the last quarterly general meeting, the rules were altered so as to vest all future elections of resident medical officers in the Committee instead of the general body of subscribers.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Thirty-ninth Annual Meeting of the British Medical Association will be held in Plymouth, on Tuesday, Wednesday, Thursday, and Friday, the 8th, 9th, 10th, and 11th of August next.

President—E. CHARLTON, M.D., D.C.L., Physician to the Newcastle-upon-Tyne Infirmary.

President-elect—JOHN WHIPPLE, Esq., F.R.C.S., Consulting Surgeon to the South Devon and East Cornwall Hospital.

An *Address in Medicine* will be delivered by GEORGE JOHNSON, M.D., F.R.C.P., Professor of Medicine in King's College, London.

An *Address in Surgery* will be delivered by JOSEPH LISTER, Esq., F.R.S., Professor of Clinical Surgery in the University of Edinburgh.

Notices of Motion.—The following notices have been given.

The PRESIDENT OF THE COUNCIL: Rule 4. To insert "President-elect", and to omit "Secretary".—Rule 6. To expunge this rule, and to substitute the following: "Each retiring President of the Association and President of Council shall be appointed a Vice-President for life by a vote of the members at the Annual Meeting."—Rule 7. To add "the Vice-Presidents" after President-elect; to insert the word "and" between President of the Council and Treasurer, and to erase "and the Secretary"; and to insert "such" between "at" and "other" in the fifth line.—Rule 8. In this and every rule where "District" is prefixed to Branch, to erase the word "District", and to erase the words "the Secretary of the Association".—Rule 9. To omit the words between "The President of the Council" and "shall be elected"—Rule 10. To omit the words between "The Treasurer" and "shall be elected".—Rule 11. To erase the words after "There shall be one paid Secretary" in first section, and to substitute "who shall reside in London, and devote his whole time to the business management of the Association and of the JOURNAL office". To erase the words "otherwise" in seventh line and "an annual or special" in eighth line, and to insert "each Annual Meeting".—Rule 13. To erase the words "Secretary shall call", and to substitute "President of Council shall direct to be called".—Rule 14. Between "shall" and "be recommended", to insert "express his desire in writing, and shall be".—Rule 15. To add "Members may be admitted on and after July 1st in each year, and the subscription for such part of a year shall be half a guinea". To erase the words after "each member" in eighth line, and to substitute "as long as his subscriptions remain unpaid, provided due notice shall have been given of such withholding".—Rule 16. To erase the words after "from his" in fourth line, and to substitute "liabilities to the Association".—Rule 24. In tenth line, to insert "a copy of the laws" between "Association" and "and".

Dr. STEELE (Liverpool): Election of Committee of Council. Every associate, who is a member of the Council, and desirous of a seat on the Committee of Council, shall send to the General Secretary, not later than months prior to the Annual Meeting of the Association, a declaration signed by himself, and in the following terms: "I, A. B., of C., member of the British Medical Association, hereby declare that I am a candidate for a seat on the Committee of Council of the said Association. (Signed) ———." Together with a nomination-paper signed by six members of the Association, in the following terms: "We, the undersigned, members of the British Medical Association, certify that A. B., of C., is a fit and proper person to be a member of the Committee of Council of the said Association." The names of the eligible candidates, with the names of the six associates by whom they shall have been respectively nominated, shall be published in the BRITISH MEDICAL JOURNAL not later than months prior to the Annual Meeting of the Association.

Mr. NICHOLSON (Hull): To alter Law 16, line 2. For "three", insert "two".

Dr. WADE (Birmingham): In Law 8, Paragraph No. 3, of the duties of Council, to alter "ten" into "twenty-five"; and to omit the words "and one Secretary from each Branch".

Gentlemen desirous of reading papers, cases, or any other communications, are requested to give notice of the same to the General Secretary at their earliest convenience.

T. WATKIN WILLIAMS, F.R.C.S., *General Secretary*.

13, Newhall Street, Birmingham, June 13th, 1871.

SOUTH MIDLAND BRANCH.

THE annual general meeting of the above Branch will be held at the General Infirmary, Northampton, on Tuesday, June 27th, at 1 P.M.: Dr. WM. CLARK, President, in the Chair.

Gentlemen intending to read papers (not to exceed fifteen minutes in reading), are requested to send the titles forthwith to Dr. Bryan, Honorary Secretary.

Dinner will be provided at the Angel Hotel, at 4 P.M.; charge, 6s., including dessert and waiters; and gentlemen who intend to be present, are requested to let me know on or before June 23rd.

Members whose subscriptions are not yet paid, are earnestly requested to pay them at or before the annual meeting.

J. M. BRYAN, M.D., *Honorary Secretary*.

Northampton, June 1871.

LANCASHIRE AND CHESHIRE BRANCH.

THE annual meeting of the above Branch will be held at the Medical Institution, Liverpool, on Wednesday, June 28th, at 12 o'clock. *President*, Dr. SPENCER, Preston; *President-elect*, Dr. DESMOND, Liverpool.

The dinner will take place at the Adelphi Hotel at 4.30 P.M. Tickets (exclusive of wine), 6s. each.

Papers and cases of interest will be communicated by Dr. Nevins, Mr. Bickersteth, Dr. Haddon, Dr. Drummond, Dr. Lyster, and Dr. Glynn.

REGINALD HARRISON, *Honorary Secretary*.

51, Rodney Street, Liverpool, June 14th, 1871.

SOUTH EASTERN BRANCH.

THE twenty-seventh annual meeting of the above Branch will be held at the Steine Hotel, Worthing, on Friday, June 30th, at 2 o'clock; Dr. TYACKE, Senior Physician to the Chichester Infirmary, in the Chair.

Dinner will be provided at 4.30; charge, exclusive of wine, 7s.

Members can introduce friends. Those who may intend to join the dinner, will oblige by informing me by the 28th instant.

G. FREDK. HODGSON, *Honorary Secretary*.

52, Montpellier Road, Brighton, June 1870.

EAST ANGLIAN AND CAMBRIDGE AND HUNTINGDON BRANCHES.

THE annual meeting of the above Branches will be held at the Norfolk and Norwich Hospital, Norwich, on Friday, June 30th, at 2.30 P.M.; P. EADE, M.D., President.

Gentlemen wishing to read papers, are requested to send the titles to one of the Honorary Secretaries; and those members who purpose being present at the dinner, are requested to communicate their intention as early as possible, so that the necessary arrangements may be made.

Notices have been received of the following communications to be read at the meeting: Dr. Humphry, F.R.S., *Reminiscences of Surgery in the Norwich Hospital five and thirty years ago*; Dr. Durrant, *On a Medical Subject*; Mr. Cadge, *On Ovariectomy*; Dr. Bradbury, *Notes of a Case of Hæmoptysis, with Remarks*; Mr. Crosse, *On Accidents in Lithotomy*; Dr. Bateman, *On Obscure Diseases of the Cæcum*; Mr. Robinson, *On Intra-ocular Malignant Growths*.

Dinner at the Norfolk Hospital at 5.30 P.M. Tickets, 12s. 6d. each.

A light luncheon will be given at the Hospital by the medical and surgical staff to members and visitors between 1.30 and 2.30 P.M.

J. B. PITT, M.D., Norwich.

B. CHEVALLIER, M.D., Ipswich.

J. B. BRADBURY, M.D., Cambridge.

} *Honorary Secretaries*.

BATH AND BRISTOL BRANCH.

THE annual meeting of the above Branch will be held on Thursday, July 13th, 1871, at the Institution at the top of Park Street, Bristol, at 4.45 P.M., when C. BLEECK, Esq., will resign the Chair to CROSBY LEONARD, Esq., President-elect, who will deliver an address.

Members having any communications for the meeting are requested to give notice of them to the Secretaries.

Members who have not paid their subscriptions, are requested to do so to the Local Secretaries at or before the annual meeting, in order that the accounts may be made up before the anniversary meeting of the Association.

The dinner will be held at the Royal Hotel, College Green, Bristol, at 6.30 P.M. Dinner tickets, including ice and dessert, 7s. 6d. each. Wines at moderate charges.

It would help the arrangements at the Bristol annual meeting, if those gentlemen who intend to be present at the annual meeting of the Association in Plymouth would kindly inform the Secretaries.

The Bristol Secretary particularly requests that those members who intend to be present at the dinner, will send him their names before Monday, July 10th, in order that the necessary arrangements may be completed.

E. C. BOARD, Clifton. }
R. S. FOWLER, Bath. } *Honorary Secretaries.*

NORTH WALES BRANCH.

THE twenty-second annual meeting of the above Branch will be held at the Castle Hotel, Ruthin, on Tuesday, July 4th, at 12 o'clock; J. R. JENKINS, M.D., President.

The dinner will take place about 4 P.M., at the usual charge.

Gentlemen having papers or cases to communicate, and who intend dining, will much oblige by sending *early* intimation to the Secretary.

D. KENT JONES, *Honorary Secretary.*

Beaumaris, June 14th, 1871.

WEST SOMERSET BRANCH.

THE annual meeting of the above Branch will be held at the Royal Clarence Hotel, Bridgewater, on Tuesday, July 4th, at 2 P.M.; J. CORNWALL, Esq., Ashcott, retiring President; W. H. AXFORD, M.B., Bridgewater, President-elect.

The dinner-hour is fixed at half-past five o'clock. Tickets 5s. each, exclusive of wine and waiters.

Gentlemen intending to be present, or wishing to read papers, are requested to inform the Secretary on or before the 30th instant.

W. M. KELLY, M.D., *Honorary Secretary.*

Taunton, June 14th, 1871.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE first annual meeting of the above Branch will be held on July 5th, at the Swansea Hospital, at 1.30 P.M.: *President*, GEORGE PADLEY, L.R.C.P.Lond.

Dinner will be provided at the Mackworth Hotel at 5 P.M. Tickets, 6s. 6d. each.

Members desirous of reading papers or notes of cases, are requested to communicate the titles at as early a date as possible to one of the undersigned.

A modification of Rule No. 2 of the Branch will be proposed at the meeting.

The Council will meet at 12.30 P.M.

Members of the Branch may introduce members of the profession to the annual meeting and dinner.

All members intending to join the latter, will oblige by sending to one of the Honorary Secretaries a communication to that effect on or before the 30th inst., so that arrangements may be made and tickets reserved.

A. DAVIES. }
A. SHEEN, M.D. } *Honorary Secretaries.*

June 14th, 1871.

METROPOLITAN COUNTIES BRANCH.

THE nineteenth annual meeting of this Branch will be held at the Castle Hotel, Windsor, on Friday, July 14th, at 3 P.M. *President for 1870-71*, T. HECKSTALL SMITH, Esq., F.R.C.S.; *President-elect for 1871-72*, J. RUSSELL REYNOLDS, M.D., F.R.S.

Dinner at the Hotel at 5.30 P.M.

A. P. STEWART, M.D. }
ALEXANDER HENRY, M.D. } *Honorary Secretaries.*

75, Grosvenor Street, June 13th, 1871.

CUMBERLAND AND WESTMORLAND BRANCH.

THE third annual meeting of the above Branch will be held at the Bush Hotel, Carlisle, on Wednesday, July 12th, at 1 o'clock. *President*, Dr. L'ANSON, Whitehaven; *President-elect*, Dr. ELLIOT, Carlisle.

Dinner will be provided at 4.30, at the usual charge.

Gentlemen having papers or cases to communicate, will greatly oblige by sending early intimation to

HENRY BARNES, M.D., *Honorary Secretary.*

Carlisle, June 20th, 1871.

CORRESPONDENCE.

THE BRITISH MEDICAL ASSOCIATION.

SIR,—As Dr. Acland has announced in the *Lancet* the secession of himself and his four colleagues from the British Medical Association as “an unavoidable sequel to the correspondence with Dr. Paget, published in the *Lancet* on May 27th”, and as it is right that every one should bear the responsibility attaching to his own actions, I am anxious to avow myself the sole author of the letter in the *Lancet* of April 18th, which originated the correspondence referred to. That letter was written without communication with any other member of the Reform Committee of the Association, or with any one, and nothing could be further from my intention or my wishes, in writing it, than to do any injustice to Dr. Paget or his colleagues.

I have since heard that a letter was written assigning the reasons for resignation; but not being aware of the existence of any such letter, and knowing that Dr. Paget had strongly opposed direct representation, I believed I was correct in stating as I did, in the concluding paragraph of the letter, that he and his friends “had retired from the executive of the Association because they were opposed to the direct representation of the profession in the General Medical Council”, without which the Association had repeatedly declared that no measure of medical reform would be esteemed satisfactory. The General Secretary signed my letter for publication, thereby endorsing my opinion, and Dr. Paget wrote to him complaining of the misrepresentation.

The General Secretary replied that he and I were responsible for the letter; he also forwarded me Dr. Paget's letter, but I was at the time so overwhelmed with work that I was utterly unable to reply to it, as well as to many other letters, so speedily as I desired. In consequence, the General Secretary and I wrote independent replies: his letters, as I gather from the published correspondence, evince the greatest anxiety to concede all that Dr. Paget required. I on my part accepted and frankly admitted Dr. Paget's own statement of the reasons he gave for resignation; viz., that the Association, by its vote at the Newcastle meeting, approved of the conduct of the Direct Representation Committee of the Association in not accepting the Medical Acts Amendment Bill of last session.

It is matter of deep regret to me to find that Dr. Paget and his colleagues should have so misinterpreted me—as I feel assured they must have done—as to feel compelled to retire from an Association embracing more than four thousand members of our noble profession on account of any act of mine.

All that a gentleman could do to remedy an involuntary error I was prepared for; but Dr. Paget, in a letter which he has not published in the correspondence, precluded me from all further communication.

I am, etc.,

EDWARD WATERS.

Chester, June 14th, 1871.

DEATHS FROM CHLOROFORM.

SIR,—In the remarks which you do me the honour to make in your issue of yesterday, on my revised article on Anæsthetics in Holmes's *Surgery*, you ask me “to note the fact that in the case recorded to-day in our columns the boy was prone, the tongue therefore gravitating forward, when death occurred.”

Allow me to direct your attention and that of your readers to the fact which I believe to be of unspeakable importance in the administration of chloroform, that mere position of the tongue has nothing whatever to do with the laryngeal obstruction that so often occurs when a patient is deeply under the influence of that agent, and which, if not promptly removed, becomes a source of serious danger. “Firm traction upon the tongue” with artery-forceps at once clears away the barrier; but it operates, not by affecting the position of that organ, but through the nervous system, like a dash of cold water on the face or chest. There is nothing on which I have endeavoured to lay greater stress either in the original article or in its present revised form.

I am, etc.,

JOSEPH LISTER.

Edinburgh, June 18th, 1871.

MEDICAL ETIQUETTE.

SIR,—My experience teaches me that etiquette is a convenient arrangement, based upon moral principles, which shall prevent disputes about trifling matters. It is possible that occasionally etiquette may have to give way to wider and more important principles or obligations than those upon which it is based. But the etiquette which rules that the educated and qualified physician shall not meet in consulta-

tion a person who is neither the one nor the other, is so important a guide in practice, both as regards the welfare of the public and the *status* of the profession, that I for one cannot but regard the statement by distinguished physicians in Dublin, that it is customary for physicians to meet in consultation unqualified and unregistered practitioners, senior students, or apothecaries' assistants, with unqualified alarm. I repudiate the idea that physicians constitute themselves detectives by watching over the honour and dignity of the profession; and I not only see no harm, but I regard it as a duty when called to meet a gentleman in consultation, to ascertain, by reference to the *Medical Directory*, what his qualifications are.

I am, however, disposed to regard both the letters to which I refer in to-day's issue of the *BRITISH MEDICAL JOURNAL* as the result of temporary irritation; for I cannot believe the evil to be as widespread as is there implied. At all events, I protest strongly against the imputation if applied to English physicians, for it has not come to my knowledge that such things are done in England, and I can scarcely have been in London practice for twenty-three years without having met with cases of the kind.

I thank you for having temperately and very properly ventilated the subject, upon which I cannot understand how there can be any difference of opinion. I am, etc., A CONSULTING PHYSICIAN.

BABY-FARMING.

SIR,—My medical attendant, Dr. Brett of Watford, has just brought the interesting letter upon baby-farming in your paper of the 27th May to my notice; and as it touches upon a subject which has been engrossing my attention for several years, I write to express my gratification that "wet-nurse baby-farming" should be now receiving from your valuable paper the consideration of which it is well worthy. In consequence of the great want of a respectable home for the infants of wet-nurses having been long felt, where the infants could be carefully and skilfully brought up by hand, I have, in conjunction with several other ladies, recently set up such a home at a short distance from London in the neighbourhood of Watford, which promises well to combine these advantages. It is proposed that the infants should be received there upon a weekly payment of five shillings, and provided with two suits of clothes, which the mothers will be expected to renew during the period of their service. In case any of your readers should wish to take advantage of this institution, I beg to inform you that it is called Hill Farm Home, Leavesden, near Watford, Hertfordshire. The nearest railway station (distant one and a half mile) is King's Langley Station. Applications for admission should be made to the Matron, Mrs. Stacey.

I am, etc.

Grove Mill House, Watford, June 14th, 1871. JANE TAYLOR.

* * * The utmost care will be needed to prevent this, like other homes for the reception of infants, from becoming a charnel-house. We wish Lady Jane Taylor all the success which her excellent efforts deserve; but, if this home be anything else than a temporary receiving house, whence the infants are distributed into cottages, it will be by no means an unmixed boon. In establishing homes for infants, the best intentions may easily produce the worst effects. The practice of wet-nursing should be discouraged to the utmost; and the infants of wet-nurses should never be received into the institution.

THE CLUB MOVEMENT.

SIR,—It is to be regretted that Mr. Manley, in his letter to the *JOURNAL*, did not limit the want of success of the club-movement to the immediate locality of his residence, which he probably intended to do, rather than proclaim the failure of the movement generally—an impression which his remarks would convey to the mind of the profession at a distance. That his own unfortunate experience differs widely from that of other members of the profession at no great distance from West Bromwich, the letter of Dr. Fred. Turton sufficiently proves.

To prevent misconception on the subject, and, what is of more importance, discouragement in those members of the profession who have not yet attempted to obtain a more adequate remuneration for club services, I will briefly state the result of the movement as it affects my partner and myself, promising at an early date to give, as far as possible, its result with reference to the town generally. At the beginning of the agitation, we applied for increased remuneration to thirty-four societies, which were then paying three shillings per member per annum. The application, which was at once a demand for increased payment and a resignation in case of refusal, was met by eighteen societies with an increase to four shillings, by seven others with an increase to five shillings; and as a result of the application, a club paying ten shillings per member was shortly formed by members of various societies hold-

ing a much higher opinion of club services than that generally entertained. These enlightened individuals were probably born before their time. Nine societies only resisted the demand: these applied to surgeons who had not joined the movement, and were at once accepted at the original rates. One club which raised its rate to four shillings, after making several payments, retraced its steps, and was accepted by a surgeon who was satisfied with the three shilling payment; the others show no desire to return to the former tariff, but are well satisfied with the change. This is the more satisfactory, as all those societies now paying us four shillings are expecting, sooner or later, to receive a demand for five shillings—the sum fixed by the Friendly Societies' Committee; and on these conditions only are they held.

To sum up, then, less than two years and a half ago we held thirty-four societies, paying three shillings. We now hold twenty-three—seventeen at four shillings, five at five shillings, and one at ten shillings. The total sum paid by these twenty-three clubs is an advance of 50 per cent. on that previously paid by the same number. But this is by no means the most satisfactory change. The improved *morale* of club-patients is marvellous. Attentions that formerly they seemed to consider they had a right to demand, as something well paid for, are now received in a spirit of obligations conferred, with gratitude and thanks. In fact, the relations of doctor and club-patient under the new arrangement are, quite apart from increased remuneration, on a so much more satisfactory and agreeable footing, that it is difficult to understand why medical men can be found opposing both their own interest and that of their clubs by insisting to maintain the old state of things. The partial success of the movement is attributable to various causes which I shall not at present attempt to discuss, but the word failure cannot be fairly applied to it here; and, however far the present aspect of the question may be from that complete success which a few of the most sanguine among us anticipated, the words of Dr. Turton are as applicable to Birmingham as to Wolverhampton: "Its effects upon club-practice have been most beneficial, morally and pecuniarily."

I am, etc., ROBERT MACPHERSON,

Honorary Secretary of Friendly Societies' Committee.

SIR,—Will you kindly allow me, as a club-member who has always taken the deepest interest in the question of remuneration to medical officers from the commencement of the agitation, to say that Mr. Manley's remarks, in his letter which appeared in your issue of the 10th instant, do not apply to Birmingham, for here can be found some "trace" of the "good" in favour of the members of a society, as the result of the recent agitation by the surgeons? I say this, because I am writing from a member's point of view.

The society to which I belong numbers over two hundred members, and about two years ago it had under consideration an application for an increase in the remuneration to its medical officer. The question was fairly considered, and the members unanimously agreed to advance the pay from three shillings per member *per annum* to five shillings, and to raise the contribution one penny per fortnight. The change has worked well, and has given the greatest satisfaction to the members; and it would take no small amount of persuasion to induce them to go back to the old rate, although there would be no difficulty in finding surgeons to accept it. I am quite sure, from long experience in the working of sick benefit societies, that inadequate remuneration to the medical officers is a most grievous and fatal error.

Birmingham, June 20th, 1870.

I am, etc., W. GRIMES.

SIR,—Having taken an active part in this movement from its comment, I should be obliged by your allowing me a small space in your next issue to record my experience in order to correct the erroneous impression which Mr. Manley's letter has a tendency to create.

I may premise by stating that I live in a manufacturing district, and have attended a large number of clubs for the last twenty-six years. At the time of the agitation, about one-third of my clubs seceded rather than pay the increased rate. Since then, some have repented and returned to their allegiance at the advance, and others I would not have back at any price. New clubs have been formed, and many of the more respectable members of the lost clubs have become private patients. The results are: a pecuniary gain, less work, increased self-respect, and greater deference on the part of the club-members, and more value accredited for that attendance which costs them more.

To give the different causes of the failure of the movement in some instances in this district, would take up too much space. I will merely mention two as suggestive—want of unanimity amongst ourselves, and being too arbitrary. Some of the clubs have a demand served upon them for an immediate increase without due notice, and accompanied with stringent regulations that the money must be sent to the respective surgeons, and no discount allowed or gratuity of any kind to the

member or members who brought it. The Chief Rangers and Most Noble Grands, and other officers in Courts and Lodges in manufacturing districts, are generally men of intelligence, perfect autocrats when in their chair of office, and will not be dictated to. A little more of the *suaviter in modo*, and a different result would have been obtained.

I am, etc., THOMAS UNDERHILL, M.D.
Great Bridge, June 21st, 1871.

MEDICAL NEWS.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

ALL that we gather of professional opinion concerning the forthcoming elections to the Council of the College of Surgeons, confirms the views which we have already expressed. Mr. Le Gros Clark and Mr. Busk are considered to have unquestionable claims to the votes of the Fellows for re-election. With the best feeling towards Mr. Cock, there are a great many who think that his long and ample share of College honours and positions might well satisfy his utmost ambition. Of the new candidates, Mr. Spencer Wells stands first in seniority, and is pre-eminent for his services to surgery, and for the extent to which he has enhanced the reputation which British surgery holds abroad. As an old St. Thomas's man, he will probably have the especially hearty support of the members of the "United Hospitals." Mr. Critchett's candidature is, on equally solid grounds, viewed with the highest favour. Mr. Barnard Holt has put himself in a good position for next year.

THE NEW ST. THOMAS'S HOSPITAL.

THE opening of the new St. Thomas's Hospital by Her Majesty in State took place on Wednesday, as announced, and was an occasion of great ceremony. Her Majesty was accompanied by many members of the royal family, attended by a brilliant suite and by most of the members of the Cabinet. The chief dignitaries of the Church and State were assembled to receive her, and the benediction was pronounced by the Archbishop of Canterbury. The invitations included a large number of distinguished members of the profession in London; and the Presidents of the Royal Colleges of Physicians and Surgeons were assigned prominent positions in the central hall. A large number of old St. Thomas's men were among the privileged spectators in the corridors. A hospital does not, from the necessities of its architecture, usually possess any single great apartment well suited to occasions of state; and the most had to be made of the limited space of the central hall. The ceremony there was, however, brief; its only specially interesting feature being the conferring of knighthood on Mr. (now Sir) Francis Hicks, the Treasurer—an honour which every one felt to have been arduously earned and to be well deserved. The Queen is always at home in an hospital; and her visit to the two wards which she was personally to name was by no means a mere going to the door, but included a complete tour of each room and inspection of its proportions and aspect, and of the view from the windows. In each ward, her Majesty, before leaving it, desired Sir Francis Hicks to inform the suite who accompanied the royal party, that Her Majesty was graciously pleased to name the wards—the one "Victoria", and the other "Albert". In the Victoria Ward, Mrs. Wardroper was present. In the deputation which received Her Majesty, were included Dr. Barnes, Dean of the Medical School; Dr. Peacock, Senior Physician to the Hospital; and Mr. Le Gros Clark, Senior Surgeon to the Hospital.

In the central hall are busts of Cheselden and of Mead, on serpentine columns, by Mr. Weeks, R.A., presented by a committee of old students—Dr. Leonard Sedgwick acting as Honorary Secretary. Sir William Tite has presented, as an altar-piece in the chapel, a picture of "Christ healing the sick", by Horsley; and Sir John Musgrove has ordered a marble statue of the Queen to be placed in the central hall, as a memento of her gracious interest in the hospital.

The value of the new and great hospital to the public depends largely upon those who conduct the medical service. The medical staff of the new hospital, strengthened by the recent additional elections, includes now Dr. Peacock, Dr. Bristowe, Dr. Clapton, Dr. Murchison, and Dr. Barnes; Mr. Le Gros Clark, Mr. Simon, Mr. Sydney Jones, Mr. Croft, and Mr. Liebreich; Dr. Stone, Dr. Ord, Dr. John Harley, Dr. Payne, and Dr. Gervis; Mr. Mac Cormac, Mr. Wagstaffe, Mr. F. Mason, and Mr. H. Arnott—numerically the strongest staff in London, and intellectually exceeded by none.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 15th, 1871.

Deeping, George Davidson, Newark
Dunstan, Robert, Liskeard, Cornwall
Fisher, Frederick Alfred, Upper Holloway
Freston, Robert Smirke, Rotherhithe
Fulford, William Edward, Swansea
Heygate, William Harris, West Haddon, Northamptonshire
Piggott, Edward Alfred, Argyll Street, Regent Street
Waterschoot, Charles Van, High Street, Deptford

The following gentleman also on the same day passed his first professional examination.

Woodhouse, Robert Hall, Middlesex Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

ATHLONE UNION, Co. Westmeath—Medical Officer for the Moate Dispensary District.
BOYLE UNION, co. Roscommon—Apothecary to the Workhouse.
BRIGHTON and HOVE DISPENSARY—Resident House-Surgeon.
BROADMOOR CRIMINAL LUNATIC ASYLUM—Assistant Medical Officer.
CARLOW UNION—Medical Officer for the Carlow Fever Hospital.
CUMBERLAND and WESTMORELAND CONVALESCENT INSTITUTION, Silloth—Medical Attendant.
DEVON AND EXETER HOSPITAL—Two Surgeons.
EDINBURGH VETERINARY COLLEGE—Professor of Zootomy or Comparative Anatomy; Professor of Cattle Pathology.
GAINSBOROUGH UNION, Yorkshire—Medical Officer for the Danby District.
HAMADRYAD HOSPITAL SHIP, Cardiff—Resident Assistant Medical Officer.
HEREFORD GENERAL INFIRMARY—House-Surgeon.
HOLSWORTHY UNION, Devon—Medical Officer and Public Vaccinator for District No. 4.
HOSPITAL FOR WOMEN, Birmingham—Four Acting Medical Officers.
HUDDERSFIELD and UPPER AGERIGG INFIRMARY—Physician.
KILKEEL UNION, Co. Down—Medical Officer for the Workhouse and Fever Infirmary; Medical Officer, Public Vaccinator, and Registrar of Births, etc., for the Kilkeel Dispensary District.
LEEDS PUBLIC DISPENSARY—Junior Resident Medical Officer.
LIVERPOOL DISPENSARIES—Assistant Resident House-Surgeon.
LIVERPOOL NORTHERN HOSPITAL—Junior House-Surgeon.
LIVERPOOL ROYAL INFIRMARY—Physician.
MALTON DISPENSARY—House-Surgeon.
QUEEN'S COLLEGE, Birmingham—Joint Professor of Anatomy.
ST. MARY'S HOSPITAL—Assistant Physician; Assistant Surgeon; Dental Surgeon.
ST. MARY'S HOSPITAL MEDICAL SCHOOL—Medical Tutor and Pathologist.
WEST DERBY UNION, Lancashire—Medical Officer for the Millroad Workhouse, Everton.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

CAMPBELL, A. C., M.B., appointed Surgeon to the Dundee Royal Infirmary, *vice* John R. Begg, Esq., whose term of office has expired.
*JACKSON, T. Carr, Esq., appointed Consulting Surgeon to the Central Pancras Provident Dispensary.
ROBERTS, Frederick T., M.D., appointed Assistant-Physician to the Brompton Hospital for Consumption and Diseases of the Chest.
SHAW, T. Clave, M.D., B.A., appointed Lecturer on Mental Diseases at St. Bartholomew's Hospital, *vice* *R. Thorne Thorne, M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the communication.

BIRTH.

NOBLE.—On June 17th, at Kendal, the wife of *Samuel C. Noble, Esq., Surgeon, of a daughter.

DEATHS.

BANKS, John, Esq., Surgeon, at Cromer, aged 70, on June 1st.
HATFIELD, R. B., M.D., of Cleveland Street, London, at Sawtry, on June 13th.
SHAW, Ollive Sims, Esq., Surgeon, from typhus fever contracted in the execution of his duties, at Liverpool, aged 24, on June 12th.

CLARKE *v.* BUCHANAN.—This case, arising out of the sale of a medical practice at Staines, came before Mr. Justice Hannan at Westminster on Tuesday last, and was ordered to be referred to Dr. Baxter Langley as arbitrator, with full powers and costs at his discretion. The costs of the legal proceedings up to date to follow upon his award.

ROYAL COLLEGE OF SURGEONS.—The next preliminary and pass examinations for the diplomas of membership of the College will commence on Saturday, the 15th, and Friday, July 21st, respectively. During the present week, about 350 candidates for the preliminary or arts examination have gone through that ordeal at the Whittington Club by a staff of examiners from the College of Preceptors. Owing to the great number of papers to be read, the result cannot be known for some weeks.

OPERATION DAYS AT THE HOSPITALS.

MONDAY Metropolitan Free, 2 P.M.—St. Mark's, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.

TUESDAY Guy's, 1.30 P.M.—Westminster, 2 P.M.—National Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.

WEDNESDAY .. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—St. Thomas's, 1 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—King's College, 2 P.M.

THURSDAY St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.

FRIDAY Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic Hospital, 2 P.M.

SATURDAY St. Thomas's, 9.30 A.M.—St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Charing Cross, 1 P.M.—Lock (Clinical Demonstrations and Operations), 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Free, 2 P.M.—East London Hospital for Children, 2 P.M.—Hospital for Women, 9.30 A.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. William Ogle, "On Dextral Pre-eminence"; and other papers by Dr. F. B. Nunneley, Mr. Spencer Watson, and Mr. Francis Mason.

EXPECTED OPERATIONS AT THE HOSPITALS.

CHARING CROSS HOSPITAL. For Extroversion of Bladder, by Mr. Bellamy.

NOTICES TO CORRESPONDENTS.

ALL Letters and Communications for the JOURNAL, to be addressed to the EDITOR, 37, Great Queen Street, Lincoln's Inn Fields, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

TO PURCHASERS.—To insure attention, it is requested that all orders sent to the Office for extra copies of the JOURNAL, be accompanied with *halfpenny* stamps for the amount.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course, not necessarily for publication.

THE pressure of matter compels us to defer until next week the title-page of the present volume; as well as several reports of Branch meetings and societies.

DR. WILLIAM WHITELAW'S "Rules for the Promotion of Health" are judicious and useful. They are printed as a broad sheet for distribution, and published by J. and R. Parkane, Paisley. Price 2s. 6d. per 100.

MR. BERKELEY HILL (London).—We shall be glad to receive a note on ganglion.

WE are sorry not to be of altogether the same mind as "An Old-fashioned Fellow", with whose opinions we generally agree; but if there be any fault in the matter, it is ours.

DR. WADE (Birmingham).—On this subject, address the General Secretary or President of Council.

AN excellent little *brochure* has appeared on *Infant Life*, by G. W., republished, we believe, from the *Journal of Cutaneous Medicine*, and with a brief preface by Mr. Erasmus Wilson. It has this week been brought to our notice, and we believe also to that of Mr. Wilson, that this pamphlet has been advertised in a somewhat too striking manner. There is no great harm in the form of advertisement; but it is one to which Mr. Wilson has just professional objection, which will be expressed to, and no doubt respected by, the intelligent authoress of the *brochure*.

RUS NON URBE.—It is entirely optional whether a member do or do not belong to a Branch, in or out of the metropolis. Members who enjoy the advantages of a Branch, which are many, pay a small Branch subscription, which varies in amount in different Branches, according to the activity and expenses of the Branch. To join a Branch is advisable, but nowhere compulsory; so that the grievance of "Rus non Urbe" is imaginary.

MEDICAL REFORM.

DR. ELLIOT (Carlisle).—The deputation in question appears to have consisted chiefly, if not entirely, of irregular practitioners; and Mr. Forster became aware of the fact only in the course of the interview. He informed them that there was very little chance of the Bill getting into Committee, and observed that he had supposed them, when their application was received, to be a society of orthodox medical practitioners. We see no ground for complaint in the promise to consider their suggestions and statements. Every body of men is entitled to that promise; it means very little in the mouth of a Minister. No doubt Mr. Forster was the subject of a perhaps involuntary illusion in consenting to receive them. But as another self-appointed deputation of seven or eight recently undertook *sponte sua* to represent the profession on this subject, he may be excused for being a little befogged as to who were, and who were not, justified in coming before him on this matter—and finding some difficulty in determining off-hand which were the veritable tailors of Tooley Street.

MR. T. R. CROSS's communication arrived too late to be of use.

SMALL-POX AND VACCINATION.

SIR,—The conclusions which Dr. Snow Beck has formed upon certain questions affecting vaccination, appear to be the result of the not uncommon fallacy of generalising upon insufficient premises. When Dr. Seaton asserts that the character of the cicatrix determines the quality of the vaccination, even after the lapse of years, he is speaking from personal observation extending over thousands, we might almost say millions, of cases, examined throughout the country during a period of several years. All experienced vaccinators are aware that in some exceptional cases good vesicles do not, from a variety of causes, produce typical cicatrices. They knew also, long before the advent of the recent epidemic, that some persons who have been successfully vaccinated afterwards take small-pox. This has occurred in all previous great small-pox epidemics. But such occurrences are exceptions to the well-established fact, that good vaccination is as complete a protection from small-pox as an attack of variola itself. There are records in existence of the results of vaccination amongst large numbers of individuals, such as the army, schools, and other public institutions, which show that the liability to contract small-pox is neither greater nor less, but as nearly as possible the same, amongst those protected by previous small-pox, and those protected by good vaccination. The reasons for revaccinating about the age of puberty are not so much founded upon any "mystical change at that period", as upon the ascertained fact that there is an exceptional proclivity to contract small-pox between the ages of 15 and 25.

I imagine that surgeons will require stronger evidence of the liability to disfigurement after the removal of small *naevi*, than the accidental occurrence of that unusual misfortune in two cases. So those who are conversant with the whole subject of vaccination, and have made themselves thoroughly acquainted with the history and statistics of the subject from Jenner's time to the present day, are not likely to have their confidence shaken by exceptional occurrences, which, however they may impress individuals whose opportunities of observation are necessarily limited, sink into insignificance when compared with the overwhelming testimony afforded by the national records of this and other countries.

Mr. Simon, in his *Papers relating to the History and Practice of Vaccination*, published ten years ago, asserted "that vaccination performed in infancy in the best manner gives to *most* persons throughout life a complete security from small-pox; and that if vaccination were universally performed in the best known manner, deaths by small-pox would be amongst the rarest entries in the register." Subsequent experience, including that of the present epidemic, has, I believe, furnished no evidence which can contradict or invalidate Mr. Simon's estimate of the protective power of cow-pock. The public vaccination in this country has for some few years been progressively advancing and improving, but the lamentable neglect of previous years cannot of necessity be remedied at once; and we must not expect to obtain the full benefits of Jenner's discovery until England has become a well and thoroughly vaccinated country. I am, etc., A. B. STEELE.

Liverpool, May 30th, 1871.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The New York Medical Gazette, June 17th; The New York Medical Record, June 8th; The Boston Medical and Surgical Journal, June 8th; The Madras Mail, April 10th; The Shield, June 17th; The Philadelphia Medical Times, May 31st; The Philadelphia Medical Independent, June 3rd; The Scotsman, June 15th; The Birmingham Morning News, June 17th; The Southport Independent, June 17th; The Leamington, Warwickshire, and Centre of England Chronicle, June 17th; The Edinburgh Evening Courant, June 10th; etc.

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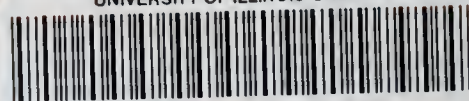
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